

PROBLEMS AND PROSPECTS OF VOCATIONAL EDUCATION: AN EMPIRICAL STUDY IN RAJSHAHI DIVISION, BANGLADESH



A Dissertation
Submitted to the Institute of Education and Research, University of Rajshahi, Bangladesh in
Partial Fulfillment of the Requirements for the Degree of
Doctor of Philosophy

By

Md. Shahadat Hossain

**INSTITUTE OF EDUCATION AND RESEARCH
UNIVERSITY OF RAJSHAHI
BANGLADESH**

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PhD Fellow
Session: 2012-13

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CERTIFICATE

We have the pleasure to certify that the dissertation titled “**PROBLEMS AND PROSPECTS OF VOCATIONAL EDUCATION: AN EMPIRICAL STUDY IN RAJSHAHI DIVISION, BANGLADESH**” is the original research work of **Md. Shahadat Hossain** under our supervision. So far as we know, no other person was associated in any stage of his research work.

We went through the draft and the final version of this dissertation very carefully and found it satisfactory for submission to the Institute of Education and Research, University of Rajshahi, Bangladesh for the Degree of Doctor of Philosophy.

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DECLARATION

I do hereby declare that the dissertation titled “**PROBLEMS AND PROSPECTS OF VOCATIONAL EDUCATION: AN EMPIRICAL STUDY IN RAJSHAHI DIVISION, BANGLADESH**” submitted to the Institute of Education and Research, University of Rajshahi, Bangladesh, for the Degree of Doctor of Philosophy, is my original research work. No part of this thesis, in any form, has been submitted to any University or Institution for any Degree or Diploma.

Md. Shahadat Hossain

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Md. Shahadat Hossain

ABBREVIATIONS

ACE	: Adults and Community Education
ADB	: Asian Development Bank
BANBEIS	: Bangladesh Bureau of Educational Information and Statistics
BTEB	: Bangladesh Technical education Board
BIDS	: Bangladesh Institute of Development Studies
BBS	: Bangladesh Bureau of Statistics
BOU	: Bangladesh Open University
BMET	: Bureau of Manpower Employment and Training
CTE	: Career and Technical Education
CPD	: Centre for Policy Dialogue
CQAF	: Common Quality Assurance Framework
DTE	: Directorate of Technical Education
EC	: European Commission
FFYP	: Fifth Five Year Plan
GE	: General Education
GDP	: Gross Domestic product
GOB	: Government of Bangladesh
HSC	: Higher Secondary School Certificate
HSC (Voc)	: HSC Vocational
HSC (BM)	: HSC (Business Management)
ILO	: International Labor Organization
ICT	: Information and Communication Technology

ICRW	: International Centre for Research on Women
MPO	: Monthly Payment Order
MOE	: Ministry of Education
MOLE	: Ministry of Labor and Employment
MTTC	: Mohila Technical Training Centre
NEP	: National Education Policy
NGO	: Non-Government organization
NSPR	: National Strategy for Accelerated Poverty Reduction
NSDC	: National Skills Development Council
NSDP	: National Skills Development Policy
NTVQF	: National Technical and Vocational Qualification Framework
QA	: Quality Assurance
RPL	: Recognition of Prior Learning
SFYP	: Sixth Five Year Plan
SSC	: Secondary School Certificate
SSC (Voc)	: SSC Vocational
SPSS	: Statistical Package for Social Science
STEP	: Strengthening Technical Education Program
TVE	: Technical and Vocational Education
TTC	: Technical Training Centre
TVI	: Textile Vocational Institute
TVET	: Technical and Vocational Education and Training
TAFE	: Technical and Further Education

UNESCO	: United Nations Educational Social and Cultural Organization
USA	: United States of America
UCEP	: Under-Privileged Children Education Program
VE	: Vocational Education
Voc	: Vocational
VET	: Vocational Education and Training
VTE	: Vocational and Technical Education
VTI	: Vocational Training Institute
VTTI	: Vocational Teachers Training Institute
TTTC	: Technical Teachers Training Colleges
WB	: World Bank
7th FYP	: 7 th Five Year Plan

ABSTRACT

Skilled manpower is essential concomitant of sustainable development for the populous country like Bangladesh. Vocational education (VE) is work-based and training oriented education which is the main tool for skill development.. The VE of Bangladesh suffers from many kinds of challenges, though it focuses some prospects for economic growth by creating skilled manpower. The SSC (Voc) [Secondary School Certificate (Vocational)] is the most widely extended vocational course over the country. The Government of Bangladesh (GOB) has introduced various steps to increase the enrolment in SSC (Voc) course, but till now it does not fulfill the goal. The SSC (Voc) education suffers low enrolment situation due to some challenges. It is a dire need of academic research for in-depth investigation to know the causes of low enrolment and to know the extent in where the SSC (Voc) course is effective. Therefore, an effort has been made to reveal the problems and prospects of VE in context of SSC (Voc).

This research is predominantly both quantitative and qualitative in nature (mixed method) where three districts namely Rajshahi, Natore and Bogra of Rajshahi Division, Bangladesh were selected as the study areas. Document analysis, interview, and questionnaire survey methods were used. Relevant policies and reports of various national and international agencies were collected for document analysis. For questionnaire survey, 500 students, 80 Trade instructors, 20 Head teachers/Principals, 51 guardians and 91 social leaders were selected as respondents through random and purposive sampling techniques. For qualitative analysis, 40 respondents (all types) were selected for interview. Univariate, bivariate and multivariate analysis were used to analyze the data for estimating the required indicators and to measure the intensity of the explanatory variables on explained variables.

This results revealed that 40% drop-out students of general education existed in VE were come from the poor socio-economic background. The GOB has also a goal to admit drop-out students in VE. In Bangladesh, there is a dire need of VE. Almost all the respondents were expressed about the need of VE for skill development and SSC (Voc) course is suitable one as VE. Most of the Head teachers/Principals (75.0%), one third Trade instructors (33.8%), and one fourth ‘guardians and social leaders’ (25.8%) were expressed that the present status of VE is not satisfactory. In case of students, respondents’ gender, mother’s education, district, and type of institutions were found significant predictors for the present status of VE. The respondents (all categories) who were commented ‘not satisfactory’ were agreed (80.0% to 100.0%) to develop the VE by following steps: i) training of teachers and instructors; ii) infrastructure development; iii) study content development; iv) increasing monitoring; v) creating scope of higher education; vi) financial and other supportive motivation; vii) creating scope of exporting skilled manpower; viii) introducing new demand oriented trades; ix) social advertising for awareness; x) expanding VE in root level; xi) increasing institutions; xii) increasing classrooms; xiii) increasing labs/instruments; and xiv) increasing numbers of trade. The study identified that VE institutions do not have sufficient labs/instruments and other infrastructures. Trade instructor’s district and gender and type of respondent of ‘guardian’s and social leader’s’ were found significant predictors for this. Most of the Head teachers/Principals were commented that their institutions do not have multimedia classrooms and sufficient labs/instruments/materials to conduct practical classes.

The study identified some causes for low enrolment in SSC (Voc) are: i) less social dignity of vocational profession; ii) physical work-based jobs; iii) lack of social awareness; iv) lack of proper learning in VE; v) comparatively higher expense than general education; vi) absence of

VE course in nearest institutions. Another cause for low enrolment is misconception that only weak student admit in VE and the scope of trade related higher education is limited. Student's father's education and age and type of respondent of 'guardian's and social leader's' were found significant predictors for 'less social dignity of vocational profession'. Student's mother's education and monthly family income were found significant predictors for 'physical work-based job nature of vocational profession'. Student's father's education, father's occupation and district and age and gender of 'guardian's and social leader's' were found significant predictors for 'lack of social awareness about VE'. Student's education class, father's occupation, district and type of institutions and age and gender of 'guardian's and social leader's' were found significant predictors for 'lack of proper learning in VE'. Student's age, education class, district and type of institutions and type of respondents of 'guardian's and social leader's' were found significant predictors for 'comparatively high expense than general education'. Student's father's education, mother's education, and monthly family income and only age of 'guardian's and social leader's' were found significant predictors for 'absence of VE course in nearest institutions'. The VE also suffers from some kinds of negative attitudes like it is work-based and labor oriented education, bear negative social values i.e. some vocational professions are restricted within the caste, and religious and social restriction for girl's entrance. The students face negligence and noncooperation for admitting in VE. Most of the Trade instructors, Head teachers/Principals, and guardians and social leaders were agreed with the same. Student's father's education, father's occupation, mother's education, district and type of institutions and type of respondent of 'guardian's and social leader's' were found significant predictors for 'negligence and noncooperation'. In Bangladesh, status of VE is low quality. Among the Trade instructors, about half of them (56.2%) said that the quality of VE is good, but most of the Head

teachers/Principals (85.0%) and ‘guardians and social leaders’ (76.1%) did not agree with the same. All categories of respondents were agreed to the causes of low quality of VE are as follows: i) Lack of skilled and trained teacher; ii) Shortage of insufficient classrooms; iii) Lack of labs and instruments; iv) lack of practical expertise of Trade instructors and exercise of students; v) lack of sincerity and regularity of Trade instructors; vi) lack of students own sincerity; vii) lack of guardians consciousness and help; and viii) comparatively weak students admit in VE.

Most of the Trade instructors, Head teachers/Principals and ‘guardians and social leaders’ were expressed that VE institutions do not have sufficient labs/instruments and other infrastructures. All respondents were agreed that apprenticeship of VE is a must. Almost all Trade instructors said that their salary structure is not sufficient as a teacher. They noted that salary structure is the main constraint to attract competent teacher in VE. For this reason, in spite of existing sufficient VE institutions (Government and Non-government) in Bangladesh, skilled manpower is not increasing enough. Almost all Trade instructors, Head teachers/Principals and ‘guardians and social leaders’ were agreed that people have no consciousness about VE. Almost all Head teachers/Principals and ‘guardians and social leaders’ were agreed that after completion of SSC (Voc) course, students do not achieve enough knowledge for getting trade jobs. About fifty percent of Trade instructors were agreed the same. Trade instructors were also mentioned that weak merit of students, lack of guardians’ awareness, weak primary and junior secondary education, lack of skilled teachers and instructors, lack of trade related practical exercise, and absence of helping environment in house are the constraints for student good learning in VE. Almost all respondents thought that child marriage, and some social myths influence girl’s

entrance in VE. Most of the ‘guardians and social leaders’ were agreed that religious restrictions are also a cause of low girls’ entrance.

Almost all respondents (all types) were given their opinions that, VE has a great importance for developing a country because of it has a great contribution to become drop-out and weak student as skilled manpower. It also has contribution to reduce unemployment, child labor, child abuse, and to create scopes of self-employment, income generating activities for girls, and to help earning more foreign currency by exporting skilled manpower. By considering the importance of VE, the study revealed that initiatives are to be taken as stimulants to expand VE are as follows: building awareness of people about facilities of VE, taking various steps to reduce negative attitudes towards VE, creating necessary and sufficient scope to admit in VE, taking initiatives for establishing VE institutions by Government and Non-government sectors, creating necessary and sufficient job sectors for VE graduates, giving facilities to make entrepreneur, creating opportunity for higher education in related trades, advertising women empowerment through VE, and establishing VE institutions separately and also attached with general education institutions as a separate unit.

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CHAPTER ONE

Introduction

1. Introduction

Education is the main key of sustainable development (Rahman et al. 2010) as well as vocational education (VE) is the main tool of skill development because of VE is the work-based and training oriented education (Cornford, 2005). It has a real impact on the society (Elbushari and Aktaruzzaman, 2012). Bangladesh is an agro-based densely populated with lower education and limited natural resources based developing country. Its economy mainly depends on manual activities oriented, having many multifarious problems. The unskilled manpower is one of them because of there is a vast number of unemployed people with general education (GE) whereas there is a lot of deficiency of skilled manpower in the job market. Besides, a large number of drop-out students enter into the agriculture and other sectors as unskilled workers after leaving the schools. Education system of Bangladesh cannot provide skilled manpower according to the needs of employer and job market. The huge numbers of people do not fulfill their basic needs due to unemployment. Bangladesh exports a large number of unskilled and semi-skilled manpower every year due to lack of various types of work-based jobs and ability to create scope of self-employment. The VE is indispensable for the development of human capital. It could be one of the most effective tools to develop the skills and knowledge of the people as well as it can help the nation in becoming a competent one. As a populous country, Bangladesh earns a huge number of foreign currencies by exporting unskilled and semi-skilled manpower which are the main drivers for developing the country. If we can export manpower to abroad the same number as skilled manpower by providing vocational education and training (VET), we can earn more

foreign currencies. But enrollment of VE does not yet touch the 20% in comparing to the general education (BANBEIS, 2015) and the quality and establishment of VE is also in front of question. Though there are so many problems exist in VE, and then it has various types of scopes and prospects to develop job sectors as well as nation building by preparing skilled manpower.

VE has become very relevant today. Various educational committees have emphasized to it. In India, back in the British days, its origin in Woods Despatch (1854), there was an instruction to introduce of occupational education. Sa prsu Committee (1934) suggested various types of vocational courses at school level. Abbott-Wood report (1937) emphasized the need for VE in country like India. Gandhiji also demands a craft centered system of vocational skills and to enable the students to earn a living in the future (Basu, 1979). Besides, several commissions and committees of the British India suggested the introduction of two streams of education, academic and technical.

In 1974, United Nations Education, Social and Cultural Organization (UNESCO) adopted an important detailed recommendation concerning VE, and argued for provision of technical and vocational education (TVE) as “an integral part of general education as a means of preparing for an occupational field and as an instrument to reduce the mismatch between education and employment and between school and society at large”.

Many Asian countries had strongly emphasized VE in its school curriculum; vocational school received serious attention in Japan (Yamamoto, 1994, Boyd and Lee, 1995). VE in many countries generally refers to inculcation of vocational and technical skills relevant for specific occupations.

China is a big and populous country had a goal of expanding VE so that at least 50% of the enrollments in secondary education would be in VE. Some countries like Israel, Jordan, Korea and Turkey have expanded their VE system to achieve the enrollments in VE which are more than 40% of the enrollments in the secondary education. Countries in East Asia like Thailand, Japan and Indonesia have also high enrollments in VE. In Israel the enrollments formed more than 30% percent in upper secondary level for a long time (Susairaj, India)

In Bangladesh, the various educational commissions constituted after independence have reflected the need for VE. Especially Khuda Commissions (1974) strongly emphasized its importance. National Education Policy-2010 (NEP-2010) also calls for some form of TVE to be introduced at all secondary level institutions including Madrashah to build up skilled manpower to create opportunities of economic development and to increase dignity of labor and to create wide ranging employment opportunities through export of skilled manpower and to enhance foreign currency earnings.

The above discussion are involved in establishing the main causes of the importance and the need of the VE and in finding out the existing problems (Challenges) and possible prospective roles in the educational system in order to establish the research problems. All these discussion have revealed that there have to be some variables which when a country coupled with effective VE, could positively impact on the improvement of economic development providing skilled manpower and productivity. So, VE is considered as an important tool to improve the competence and employability of individuals, to increase the productivity of the country which plays an important role in alleviating poverty. Therefore, there are enough scopes and needs to be developed VE in Bangladesh.

The main concepts in this study, VE, problems of VE, and prospects of VE are defined in order to counteract any possible confusion with different meanings of similar concepts in the social sciences. These concepts are not critical to understanding of the discourse in this study and detail explanations of how they interact with one another in this study, are elucidated in appropriate sections of the thesis.

1.1 Vocational Education

The VE is an education which based on occupation or employment. It is also known as career and technical education (CTE) or technical and vocational education and training (TVET). It is the education that prepares to people for specific trades, crafts and careers at various levels from a trade, a craft technician or a high professional practitioner position in engineering, accountancy, nursing, medicine, architecture, pharmacy, law etc. Crafts vocation are usually based on manual or practical activities; traditionally non-academic, related to specific trade, occupation or vocation. It is sometimes referred to as technical education as the trainee directly develops expertise in a particular group of techniques. The VE can be defined as a link between primary vocation training and further education within a structure of lifelong learning. It is the means whereby past and present experiences could be reconciled to the present and future work force. It plays an exceptional role in the development of a skilled workforce as a contribution to innovation and economic competitiveness. The VE is also related to the age old apprenticeship system of learning. Apprenticeships are designed for many levels of work from manual trades to high knowledge work. It has diversified over the 20th century and now exists in industries such as retail, tourism, information technology, funeral services and cosmetics as well as in the traditional crafts and cottage industries (Runner, 2008).

1.1.1 Impact of Vocational Education

The vocational education and training (VET) has gifted in Europe with a genuine European labor market, a knowledge based economy, reduction of social inequality as well as the realization of an integrated and highly vocation structure. The results of VET's success in Europe are that two third of the employed population has been assigned to the mid-skilled level. This involves the skilled workers and technicians (Rauner, 2008). The results of VET in Australia is a rigid system that is narrowly centered on work related competencies to the elimination of broader education that makes the students response to quick changes in the economy, technology and social development. Australia has been a pioneer as well as a follower of the innovation perspective of VET. The states and territories of Australia have main responsibility for VET. The federal government contributes in VET and they use this as a lever to control national policy. All publicly financed course delivery in the VET system must be based on training packages where they exist, and industry approved standards where they do not (Wheelahan & Carter, 2001). The VET is viewed as the solution to the educational crisis in the developing countries as well. In India, VET is provided in 9,619 schools with 21,000 sections covering approximately 1 million students. It is advised to develop VE to 20,000 schools and the intake capacity to 2.5 million by 2011-2012 (Goel, 2009).

1.1.2 History of Vocational Education in Bangladesh

In 1960 the Directorate of technical Education was established in East Pakistan for development of technical and VE. The Directorate of Technical Education initiated rapid development and expansion works of degree, diploma and trade level technical education in the country. To cope up with increasing magnitude of academic activities, the need for establishment of a "Statutory

Board” was keenly felt. A statutory body namely “The East Pakistan Technical Education Board” was established through Act.No.1 of 1967 of the then East Pakistan Assembly, which is now Bangladesh Technical Education Board (BTEB). Thus the Bangladesh Technical Education Board came into existence with the jurisdiction over the entire area of Bangladesh to organize, supervise, regulate, control and develop technical and VE. The Board in its present form became operative with effect from June 1969.

East Pakistan was passing as very discontented for various undue considerations like economic disparity, extraction of wealth and socio-political repression. Starting from the language movement in the year 1952 to establish Bangla as a national language (Alam, 1991), the people of East Pakistan had struggled hard for democracy and autonomy, which turned into a war of liberation in 1971 (Zaheer, 1994). On Liberation in 1971, Bangladesh inherited a literacy rate of 17.61 per cent of the population of all ages (GoB, 2004a). In Bangladesh, the first Education Commission report in 1974, which is under Dr. Qudrat-e-Khuda, emphasized on secular education at all level, work-relevant technical and VE, improved assessment system, letter grading in the assessment of student performance in all stages of education and making primary education from grade 1 to 8 and secondary from grade 9 to 12 (GoB, 1974). This commission strongly the report firmly asserted that women’s education should be relevant of women’s world such as to be of help to them in their domestic life, and stressed those subjects such as child-care, the nursing of the sick, and preservations of health, food and nutrition. It also emphasized that girls should be involved into ‘vocations specially suitable to them’, such as primary-school teaching, nursing and typing (Jalaluddin & Chowdhury, 1997).

In 1978, an Advisory Committee was appointed and submitted their report named ‘Interim Education Policy 1979’ on 8th February, 1979 to bear a fresh look at the issues and problems of

education (Shahadat, 1999). The interim policy document put emphasis on increased literacy so that people could take part in the development of the country. The document formulated the current educational framework with secondary education consisting of three sub-stages; namely, junior secondary (3 years), secondary (2 years), and higher secondary (2 years) and stipulated vocational, technical, agricultural and medical education will be included and integrated into secondary and higher secondary education and, there will be provision of skills development in any technical subject at junior secondary and secondary levels (UNESCO, 2007).

Bangladesh was under military-led quasi democracy throughout 1975-1990. During 1980s, the reports of ‘Mazid Khan Commission 1983’ and ‘Mofiz Commission 1988’ on education were not widely disseminated and like many other reports of the past, were not formally adopted for implementation (Sahadath, 1999; GoB, 1988). During mid 1990s, the secondary school curriculum was revised, approximately 150,000 teachers received short-term training in the new curriculum; ten teacher-training colleges were upgraded and five new higher teacher training institutes were established. At the end of 1990s, ‘Shamsul Haque Education Commission 1997’ was formed. Correspondingly, in 2001 and 2003 two other commissions ‘Abdul Bari commission 2001’ and Moniruzzaman Miah Education Commission 2003’ were formed (GoB, 2004b). The Sixth Five Year Plan (2003-2008), issued by the Planning Commission, presents the various targets in regard to secondary education including vocational education in secondary level (UNESCO, 2007). Despite these initiatives, Bangladesh faces new challenges and demands in education sector and secondary education system is still facing problems to deliver quality and demand oriented education (Ahmad, 2005).

Even though there have been seven education commissions formed till date but Bangladesh has not been able to have a realistic education policy after 47 years of its independence. Successive governments in Bangladesh, whether for political motives or real attempts at getting it right, have always advanced legitimate explanations for embarking upon one reform program or the other. Over the years, emphasis is given on quantity by setting up unnecessary secondary education institutions to satisfy politicians and their constituencies (GoB, 2005). So, secondary education in Bangladesh ignores, in a thousand ways, the rules of integral, transformational healthy educational development. Evidently the ineffectual manner by which the policies were implemented ensured that educational planning was social-demand oriented rather than manpower oriented (Mahmud, 2003). The secondary graduates, therefore, suffer with no marketable skills to sell to prospective employers and millions of these graduates roaming the city and town streets (GoB, 2005)

A new education policy for Bangladesh has been adopted in 2010, strongly emphasized VE in secondary level. It also recommended vocationalization from primary level to introduce pre-vocational and information communication technology. Besides, the policy suggested to increase vocational enrollment and facilitate the scope of higher education in desired vocational/technical subjects as well as diversified trades to relate job markets.

1.1.3 Vocational Education in Bangladesh

Skilled work force is an essential element of national development. Methods and strategies of development are always changing due to new innovations and inventions. Due to globalization and increasing liberalization in most of the countries across the world, there is a realization of the challenges to make VE system to be more need-based and effective, more dynamic and

responsive to the changes taking place in the industrial sectors. VE system must respond to the rapidly changing technological needs of the world of work by continuously evaluating and modifying curricula, introducing new courses, vocational teacher education, modernizing laboratories and workshops through close partnership between VE institution and the world of work (Elbushari & Aktaruzzaman, 2012). For a developing country like Bangladesh, opportunities of economic development will be created with unequal competition and the value of physical labor will be enhanced. The highest importance will be given to turn the students into competent manpower through VTE with emphasis on science, technology and especially on information technology (NEP, 2010). In Bangladesh, VE comprises into two levels: secondary and higher secondary. In this study, only secondary VE has been considered because it is the entry gate way of VE and it is run by the large number of institutions including government and private.

Table 1.1: Sector-wise teachers and students of vocational and technical education in Bangladesh

Type of Institute	Management	No. of Inst.	Teachers			Students		
			Total	Female	% of female	Total	Girls	% of girls
Polytechnic Institute	Public	46	1285	134	10.43	58816	7324	12.45
	Private	125	1592	531	33.35	25124	1645	6.55
Technical School & College	Public	64	1135	121	10.66	35621	4633	13.01
	Private	26	242	72	29.75	2283	668	29.26
Commercial College	Public	16	88	21	23.86	4125	993	24.07
	Private	9	32	7	21.88	702	122	17.38
Glass & Ceramic Institute	Public	1	18	3	16.67	884	63	7.13
	Private							
Graphic Arts Institute	Public	1	14	4	28.57	550	47	8.55
	Private							
Survey Institute	Public	2	35	5	14.29	840	33	3.93
	Private							
Technical Training Centre	Public	37	802	142	17.71	8877	1682	18.95
	Private	6	56	14	25.00	262	78	29.77
Textile Institute	Public	6	158	15	9.49	3462	268	7.74
	Private	23	132	28	21.21	6486	423	6.52
Textile Vocational	Public	40	288	65	22.57	4532	495	10.92
	Private	10	74	13	17.57	1224	231	18.87
Agriculture Training Institute	Public	13	137	25	18.25	9065	2032	22.42
	Private	96	732	148	20.22	15156	2560	16.89
Marine Technology	Public	1	50	4	8.00	666	36	5.41
	Private							
S.S.C Vocational (Independent)	Public	11	266	36	13.53	2954	495	16.76
	Private	127	1808	392	21.68	19037	5679	29.83
HSC Voc/B. Management (Independent)	Public	10	143	26	18.18	3112	165	5.30
	Private	527	4937	907	18.37	72875	7722	10.60
S.S.C Vocational (Attached)	Public							
	Private	1080	6109	1431	23.42	101558	37393	36.82
HSC Voc/B. Management (Attached)	Public	3	5	3	60.00	393	393	100
	Private	568	2317	464	20.03	69323	27401	39.53
Total(Technical Education)	Public	251	4424	604	13.65	133897	18659	13.94
	Private	2597	18031	4007	22.22	314030	83922	26.72
	Total	2848	22455	4611	20.53	447927	102581	22.90

Source: BANBEIS, 2014

1.1.4 Secondary Level Vocational Education (SSC Voc) in Bangladesh

The NEP-2000 proposes that the entire skilled manpower will be graded in three categories, a) Semi-skilled technician grade – 1; b) Skilled technician grade – 2; c) Technician grade -3 .

The NEP-2010 also proposed that:

- a) Pre-vocational and information communication technology education will be introduced in every stream of primary education to create skilled manpower. All students of primary level must complete 8 year cycle with pre-vocational and ICT courses as included in the curricula of classes 6 to 8.
- b) On completion of class 8, a student can enroll in vocational/technical education. Facilities will be created for the students of this stream so that they can gradually go up for higher education in their desired technical subjects.
- c) On completion of class 8, some students may go out of main stream education. But they can take up a 6 months vocational training program. Then they will be considered to have acquired national standard skills 1. By completing 9, 10 and 12 in vocational and technical education, one can attain respectively national standard of skills 2.3 and 4.
- d) On completion of class 8, one can undergo vocational training at 1, 2 and 4 years to be co-ordinate by mills, factories and government technical institutions or non-government vocational training institutions situated in the upzilla and districts and thereby earn National Standard Skill 2, 3 and 4.

1.1.5 SSC (Voc) as an Entry Gateway of Vocational Education

Importance of VE is remarkable in many aspects like lesser education costs, prepare for a job, easy employment, success in career and promote entrepreneurship. SSC (Voc) course as an entry point of VE in Bangladesh is the important at the same view point. Not everyone can afford to go to college or technical institute due to weakness of merit and for a long term course like as a four year diploma or degree course. Long term course carried a large expenditure like hostel fees,

communicating, costs of books etc. which is not poor students. SSC (Voc) courses are cheaper alternative for people who do not able to bear the expense and many vocational courses are similar to four year degrees. Provide a placement to the students this makes them quite useful for those who not have the means shell out money for a college degree or diploma degree. VE prepares a person for a specific job. It equips a person with the skills and qualities required to do a particular job, such as fashion designing, interior decoration, computer networking, auto repairing, etc. This prepares the student for the job at hand and thus, he is able to give full justice to his profession, due to his vast knowledge. VE makes it easier for the students to find employment. Usually, it is seen that employers prefer to hire a student who has done a vocational course rather than a college pass out, as by doing a vocational course, a student is trained specifically for a particular job. The student already possesses the right temperament, skills, qualities and education for the job and the employers feel that he/she will be more successful than a regular college pass out due to his/her knowledge. Thus, easy employment is one of the chief advantages that students from a vocational course have over others.

After completing a vocational course, a person is equipped enough to start his own business. This course of action is taken up by many vocational course passed out students. Thus, such courses promote entrepreneurship, which is a very good thing for the economy today, considering that the recession has left many without jobs. Vocational courses increase the number of small businesses, which further increase employment, thus reducing the stress on the government to provide jobs for the unemployed.

1.1.6 Need Assessment of Vocational Education

VE especially SSC (voc) plays a vital role to prepare manpower as a skilled workforce. A large number of secondary level drop-out children can enter this program to continue their study and

make them suitable for job market as skilled worker. Vocational schools provide basic education with training for in-demand careers within fields like healthcare, technology, business, education, entertainment and for specific trades like computer and information technology, dress making, carpentry, automotive mechanics, electrical works, refrigeration and air conditioning, agriculture, poultry and others 35 categories. It is very likely that a vocational school near about students offers a program for a career that will fit for students perfectly that may build bright future. VE is primarily non-academic in nature and offers practical training and skills needed to pursue an occupation straightaway .It provides the students with courses directly aligned to land a job in a chosen profession or a skilled trade. The end result of VE is to enable an individual to attain self-employment (Anusha, 2012). In Bangladesh, SSC vocational course is academic in nature and it has a wide scope to enter higher education. As a populous and developing country, VE is very much relevant and need based education for Bangladesh. “We have a large number of young people. We can use them well. Then a student will become a worker and be of help to build the country. If we can make our population skilled, they will be our great resource (Nahid, 2015)”. With a view to knowing there is a need of VE in the present socio-economic condition of Bangladesh, a questionnaire survey has been conducted by the researcher. The following table has been shown the opinions of all categories of the respondents about the need of VE.

Table 1.2: Need of VE in Bangladesh

Question	Opinion	Student	Trade instructor	Head teacher /Principal	Guardian & Social leader
		Frequency (%)	Frequency (%)	Frequency (%)	Frequency (%)
Do you think that the need of VE has in Bangladesh?	Yes	499(99.8)	78(97.5)	20(100.0)	137(96.5)
	No	1(0.2)	2(2.5)	0.0(0.0)	5(3.5)
	Total	500(100.0)	80(100.0)	20(100.0)	142(100.0)

It is revealed that almost all respondents were agreed with the need of VE in Bangladesh (Table 1.2).

1.1.7 Policy Development of Vocational Education

Directorate of Technical Education (DTE) is responsible for setting the overall policy framework of the entire VET system. Bangladesh Technical Education Board (BTEB), a statutory agency, is responsible for maintaining the qualifications framework for TVET; setting training standard and relevance to the labor market, student assessment, and certification of results and accreditation of institutions. BTEB covers all accredited institutions, both government and non-government institutions.

The National Skills Development Policy (NSDP) which is shaped by a comprehensive national policy guides of skill development strategies and co-ordinates the actions of all parties for development of skills in Bangladesh. Under the policy a new framework of Bangladesh skills system has developed which consists of i) National Technical and Vocational Qualification Framework ii) Competency Based Industry Sector Standards and Qualifications and iii) Bangladesh Skills Quality Assurance System. The main purpose of the new system is to increase ability of all individuals to access well fit employment and ensure Bangladesh's competitiveness in the global market through improved skills, knowledge and qualifications that are recognized for quality across the world. The government takes initiatives to reform TVET system and conducts various skills development projects namely TVET reform projects (funded by EU, ILO, GOB), skills development projects (funded by ADB, SDC), and STEP (funded by World Bank) etc for enhancing VET.

Table1.3: National Technical and Vocational Qualification Framework (NTVQF)

NTVQF level	Pre-vocation Education	Vocational Education	Technical Education	Job Classification
NTVQF 6			Diploma in engineering or equivalent	Mid-level manager/Sub assistant engineer etc.
NTVQF 5		National Skill Certificate 5 (NSC 5)		Highly skilled worker/supervisor
NTVQF 4		National Skill Certificate 4 (NSC 4)		Skilled worker
NTVQF 3		National Skill Certificate 3 (NSC 3)		Semi-skilled worker
NTVQF 2		National Skill Certificate 2 (NSC 2)		Basic skilled worker
NTVQF 1		National Skill Certificate 1 (NSC 1)		Basic worker
Pre-voc 2	National Pre-voc Certificate – NPVC 2			Pre-vocation trainee
Pre-voc 1	National Pre-voc Certificate – NPVC 1			Pre-vocation trainee

Source: NSDP, Bangladesh (2011)

The TVET system is comprised of three levels. The first level, basic skills, is a three or six month course focusing on manual skills. It is offered both inside and outside of schools. A good number of govt. organizations (in 19 different ministries) and private providers offer skill development training and provide certificates in their own arrangements. At the certificate level (second level), the two year SSC (Voc), covers a similar set of skills and also requires grade 8 completion. Student may proceed beyond the SSC (Voc) to the HSC (Voc), requiring an additional two years of secondary schooling after grade 8. At the post-secondary level (third level), there are four year diploma level courses which are offered through polytechnic and monotechnic institutions (such as the textile institutions). While such nomenclature is not commonly used in Bangladesh - the basic skills and certificate level courses can be classified as VE and diploma level courses are equivalent to technical education.

1.1.8 Staff Development of Vocational Education in Bangladesh

There are exist one Vocational Teachers Training Institute (VTTI) at Bogra and one Technical Teachers Training Colleges (TTTC) at Dhaka. The VTTI trains the teachers of VE courses. At the moment there are about 2848 institutions both public and private, which conduct VE courses and 22455 teachers in these institutions whose are badly in need of updating and upgrading of their both technical and teaching skills (BANBEIS, 2014). The TTTC trains the teachers of diploma level courses. Since diploma level courses are diversified in the areas of agriculture, textiles, forestry etc. At present, TTTC programs are confined to training of engineering teachers only.

1.1.9 Nature of SSC (Voc) Course in Bangladesh

The BTEB has prepared SSC (Voc) program for creating more skilled workers and skilled based technicians at the supervisory level based on the assessment of the employment market demand. This program has started from January 1995. The entry requirement for SSC (Voc) is eight years of successful schooling. Successful candidates of this program awarded SSC (Voc) certificate which is equivalent to general SSC and at the same time they awarded NSC-2 certificate after Class-IX and NSC-3 along with SSC (Voc). SSC (Voc) considered equivalent to SSC (General) for entering further education in the relevant area. The students with NSC-2 and 3 qualified to enter into the job market as semi-skilled and skilled workers respectively. SSC (Voc) curriculum has 36 weeks' institutional training and eight weeks' industrial attachment. There is a total of 1760 periods in each year having 40 periods per week. In Class-IX there are four periods for each of Bengali and English and two periods teaching contact hours per week for social science. It has six periods' trade theory and 24 periods trade practice. Similarly in Class-X there are

Bengali and English and other subjects of the same weight. Moreover, on computer and entrepreneurship the subjects are included in the trade area. After completion of SSC (Voc) the students will enter into a 2-year HSC (Voc) program and successful completion of this program will entitle the students to get HSC (Voc) and NSC-5 certificates. HSC (Voc) graduates will be eligible to enter into the further higher education stream. The NSC-5 certificate will entitle the students to enter the job market as highly skilled workers.

Table 1.4: Syllabus Structure of SSC (Voc) Curriculum of Two Years Duration and Equivalent to General SSC

1 st year (class IX)						
Subjects	Weekly periods			Yearly marks distribution		
	Theory	Practical	Total	Theory	Practical	Total
Bengali – I	4	-	4	150	-	150
English - I	4	-	4	150	-	150
Social science – I	2	-	2	100	-	100
Trade science – I	1	3	4	50	50	100
Trade mathematics - I	2	-	2	100	-	100
Drawing	-	3	3	-	50	50
Trade	3	18	21	100	350	450
Total	16	24	40	650	450	1100
Industrial attachments (8 weeks)				-	100	100
Grand total				650	550	1200
2nd year (class X)						
Subjects	Weekly periods			Yearly marks distribution		
	Theory	Practical	Total	Theory	Practical	Total
Bengali – I	4	-	4	150	-	150
English - I	4	-	4	150	-	150
Social science – I	2	-	2	100	-	100
Trade science – I	1	3	4	50	50	100
Trade mathematics - I	2	-	2	100	-	100
Use of computer	-	2	3	-	50	50
Entrepreneurship	1	-		50	-	50
Trade	3	18	21	100	350	450
Total	17	23	40	700	450	1150
Industrial attachments (8 weeks)				-	100	100
Grand total				700	550	1250

Note: SSC (Voc): Secondary School Certificate (Vocational)

The NSDP suggested that the VE programs in schools such as the SSC (Voc), HSC (Voc) and HSC (BM) will be revised to ensure that the vocational components are based on industry competency standards and that student only receive NTVQF qualifications if they are assessed as competent. Many citizens acquire skills and knowledge through work and other life experiences

without access to formal education or training. In order to recognize the skills and knowledge acquired and provide enhanced pathways into further education and training, a system for the Recognition of Prior Learning (RPL) will be introduced.

Table 1.5: Relationship of the NTVQF to the existing Qualification Structure

NTVQF level	Pre-vocation education	Vocational Education	Technical education	Current Qualification Structure	Job classification
NTVQF 6			Diploma in engineering or equivalent	4 years diploma	Mid-level Manager/Sub assistant engineer etc.
NTVQF 5		National Skill Certificate 5 (NSC 5)		NSS Master	Highly skilled worker/supervisor
NTVQF 4		National Skill Certificate 4 (NSC 4)		NSS 1/HSC (Voc/BM) year 11 & 12	Skilled worker
NTVQF 3		National Skill Certificate 3 (NSC 3)		NSS 2/ SSC (Voc) year 10	Semi-skilled worker
NTVQF 2		National Skill Certificate 2 (NSC 2)		NSS 3/SSC (Voc) year 9	Basic skilled worker
NTVQF 1		National Skill Certificate 1 (NSC 1)		NSS Basic/ Basic Trade Course	Basic worker
Pre-voc 2	National Pre-voc Certificate – NPVC 2			None	Pre-vocation trainee
Pre-voc 1	National Pre-voc Certificate – NPVC 1			None	Pre-vocation trainee

Source: TVET reform project, GOB (2009)

Note: 1.The new CBT based NSC 2, 3, & 4 courses will replace the existing vocational component of the current SSC (Voc), HSC (Voc) and HSC (BM) and be issued as separate qualifications. 2. Students who do not pass the SSC (Voc) but meet the NSC competency standards will receive an NSC level qualifications and have the opportunity to continue their studies at a training institution that offers higher level NSC programs in the study area e.g. at a TTC.

The NSDP also suggested that the traditional courses of VE should be converted as competency based now and vocational courses in both secondary (SSC voc) and higher secondary (HSC voc) level will have to be regularly updated. Courses which are determined by Industry Skills Councils as high current or high future demand are given a heavy focus by the government and while courses that are considered as low demand are updated less regularly. There are 31 trade

course of various sectors are conducted in secondary (SSC Voc) level in Bangladesh which are suitable for employment market demand and creating self-employment.

Table 1.6: Detail of SSC (Voc) course

Duration of course	Name of the Courses	Entry qualification	Trade/ Technology
2 Years	SSC Vocational	Class VIII or Equivalent	Agro Based Food, General Electronics, Automotive, Building Maintenance, Wood Working, Ceramic, Civil Construction, Computer & Information Technology, Civil Drafting with CAD, Mechanical Drafting with CAD, Dress Making, Dying, Printing and Finishing, Electrical Maintenance Works, Farm Machinery, Fish Culture and Breeding, Food Processing and Preservation, General Mechanics, Livestock Rearing and Farming, Machine Tools Operation, Poultry Rearing and Farming, Patient Care Technique, General Electrical Works, Plumbing and Pipe Fitting, Refrigeration and Air-conditioning, Glass, Fruit and Vegetable Cultivation, Weaving, Welding and Fabrication, Architectural Drafting with AutoCAD, Knitting, Shrimp Culture and Breeding
	Dakhil Vocational	Class VIII or Equivalent	
	SSC Vocational (Textile)	Class VIII or Equivalent	Dress Making, Dying Printing and Finishing, Weaving, Knitting

Source: TVET reform project, GOB (2009)

1.1.10 Problems (Challenges) of Vocational Education in Bangladesh

Problems of VE refer to the factors that stand as the obstacles to the expansion, development and prospects of VE especially in SSC (Voc) in Bangladesh. The VE focuses many serious problems in the developing countries. Bangladesh, as a developing country, faces some problems/challenges in VE. In Bangladesh, people with vocational/technical skills are in short supply, it has been estimated that for every single person in the labor force with a technical / vocational qualification there are more than 104 others who have completed SSC or HSC and 34 others who have gone onto a University degree or higher (SFYP, 2011). Here also has an evidence that mismatch with jobs and skills, difference in remuneration for skilled and unskilled

workers, poor quality of education and training, shortage of skilled teachers and instructors, people do not have proper awareness about VET, social dignity of VET professional are low, people believe that cost of VET is higher than general education and only weak student can go for VE (Newaz, et al., 2013). On the basis of these problems a strong case has been formed against VE. In this study, the nature of these problems has been discussed in the context of SSC (Voc) course in Bangladesh. Here the researcher also has tried to seek all influential factors/obstacles that are made badly performances to work VE successfully

1.1.11 Enrolment Situation of SSC Level Vocational Education

There are few people in the labor market with technical/vocational qualifications; the 2002-03 labor force survey estimated only 53,000 such men and 5,000 such women. For every single person in the labor force with a technical/vocational qualification there are more than 10 others who have completed SSC or HSC and even 34 others who have gone to a university degree or higher (WB, 2006). Students enter into our education system at the primary level which ends at Grade 5. After primary education, students enter into secondary education which extends from class six to class twelve. Every student has the opportunity/chance to choose VE either completing class eight or completing class ten. VE is optional and the students are at their liberty to admit them into VE.

Table 1.7: Number of SSC (general) Examinee 1990-2014

Year	No. of Appeared		No. of Passed		% Pass	
	Total	Female	Total	Female	Total	Female
1990	435918	146512	138317	44122	31.73	30.11
1995	765135	301146	560114	215548	73.2	71.58
2000	918045	402873	381762	161745	41.58	40.15
2005	751421	347815	394993	173468	52.57	49.87
2010	912577	453779	713560	346494	78.19	76.36
2011	986650	495610	810666	400065	82.16	80.72
2012	1048144	529610	904756	451610	86.32	85.27
2013	992313	502411	885891	445607	89.28	88.69
2014	1087870	551972	1008174	508497	92.67	92.12

Source: BANBEIS, 2015

Table 1.8: Number of SSC (Voc) Examinee 1990-2014

Year	No. of Appeared		No. of Pass		% pass	
	Total	Female	Total	Female	Total	Female
1999	8603	2165	5860	na	68.11	na
2000	14560	5621	9005	3877	61.85	62.42
2005	35779	10765	18403	5359	51.44	49.78
2009	75057	23178	53216	16598	70.90	71.61
2010	77979	22656	64501	18790	82.72	82.94
2011	82981	23578	67521	19186	81.37	81.86
2012	91170	24940	73566	20394	80.69	81.77
2013	88360	24236	71688	20459	81.13	84.42
2014	102423	27039	83954	22606	81.97	83.61

Source: BANBEIS, 2015

1.1.12 Comparison between General and Vocational Education in Secondary Level

In an attempt to increase the capacity of the VE system over recent years, the government of Bangladesh has facilitated a significant expansion of private sector places. Until 1990, private sector participation had been negligible. However, by the late 1990s, the private sector was supplying about 40% of total capacity, by 2005, it is 60% and by 2008, this portion has gone up to 73% (BANBEIS, 2008). Enrollment and pass rate of VE is not satisfactory in comparison with general education. The Table 4.9 showed that both the enrollment and pass rate do not rise up to

the 10% of general education. However, the Government has fixed a goal to increase it up to 20% of general education by 2020. The trend of enrollment in last five years (2010-2014) are stagnate position. In spite of taking government various steps to increase enrollment till now it not satisfactory level for some causes influencing the low enrollment in VE.

Table 1.9: Comparison of General and Vocational Education in Secondary Level

year	Appeared		VE comparison with GE (%)	pass		VE comparison with GE (%)
	SSC (GE)	SSC (VE)		SSC (GE)	SSC (VE)	
2000	918045	14560	01.58	381762	9005	02.35
2005	751421	35779	04.76	394993	18403	04.65
2010	912577	77979	08.54	713560	64501	09.03
2011	986650	82981	08.41	810666	67521	08.32
2012	1048144	91170	08.69	904756	73566	08.13
2013	992313	88360	08.90	885891	71688	08.09
2014	1087870	102423	09.41	1008174	83954	08.32

Note: GE: General Education, VE: Vocational Education

1.1.13 Prospects of Vocational Education

Prospects of VE mean that which factors extend the VE and causes of economic development by creating skilled manpower for all sectors of economy. In this study, the researcher has tried to show that how the SSC vocational course impact on the country to develop skill manpower and for that reason country will achieve more economic development.

1.2 Statement of the Research Problem

Bangladesh needs to create at least two and one-quarter million jobs per year to accommodate a near doubling of the labor force from its present size of 55 million to 100 million in 2020 (WB, 2006). In 2010, Bangladesh's total labor force was 56.7 million, growing on an average of about 1.5 million new entrants per year since 2002. Estimates were suggested that the labor force will reach 64 million in 2014–2015. However, about 40% of the working-age population lacked schooling, and 22.8% had only a grades 1–5 education (BBS, 2011). At present, the total labor

force is 63.5 million, of them 60.8 million are employed. By industry, 40.6% are employed in agriculture sector which is the largest portion. About 39% employed in service sector and the smallest portion (20.4%) is industry sector. One third (31.9%) of the employed population had not had any formal education. More than 15.7 million employed workers (25.8%) had completed primary education, while more than 18.7 million workers (30.8%) had completed secondary education (BBS, 2018). After completion of class VIII a large number of students drop-out from general stream of education in order to various reasons and they go into the labor market as unskilled manpower. As a developing country, the economy of Bangladesh mainly depends on agro-based manual activities and unskilled manpower is one of the crucial problems of this country. Here, most of the workers are employed in the informal sector, with agriculture as the major sector of employment. The informal sector provides some 78% of total employment, of which 48% is in agriculture (SFYP, 2011). Labor force in Bangladesh has been growing fairly rapidly and in term of employment, agriculture sectors are saturated, which seems that unemployment is low but disguised unemployment is high and rising (WB, 2006). For employment crisis in local job market, a major portion of drop out students migrates abroad as an unskilled labor force. Every year about 600,000 to 700,000 Bangladeshi migrate abroad and about 8.3 million people of Bangladeshi origin are living and working in more than 157 countries (ILO, 2014). The higher portion of migrated peoples involved in odd and low paid jobs due to their lack of skills. Remittances from these unskilled migrant workers were not satisfactory according to the number of migrated people; still it comprised about 10% of gross domestic product (GDP) in 2010. Remittance inflows could have been greater if the migrant workers were skilled (ADB, 2015).

It is noteworthy that at present, in the rural areas of Bangladesh, expansion of science and technology is reaching out very fast from agriculture and farming to sugarcane threshing machines, rice mills, communication sectors, supply of electricity, power looms etc. The country

needs to develop in these sectors including information and communication technology. So, it needs competent manpower to meet up those needs (NEP, 2010). People with vocational and technical skills are in short supply in Bangladesh whereas demands of skill labor force in all sectors are increasing (WB, 2006).

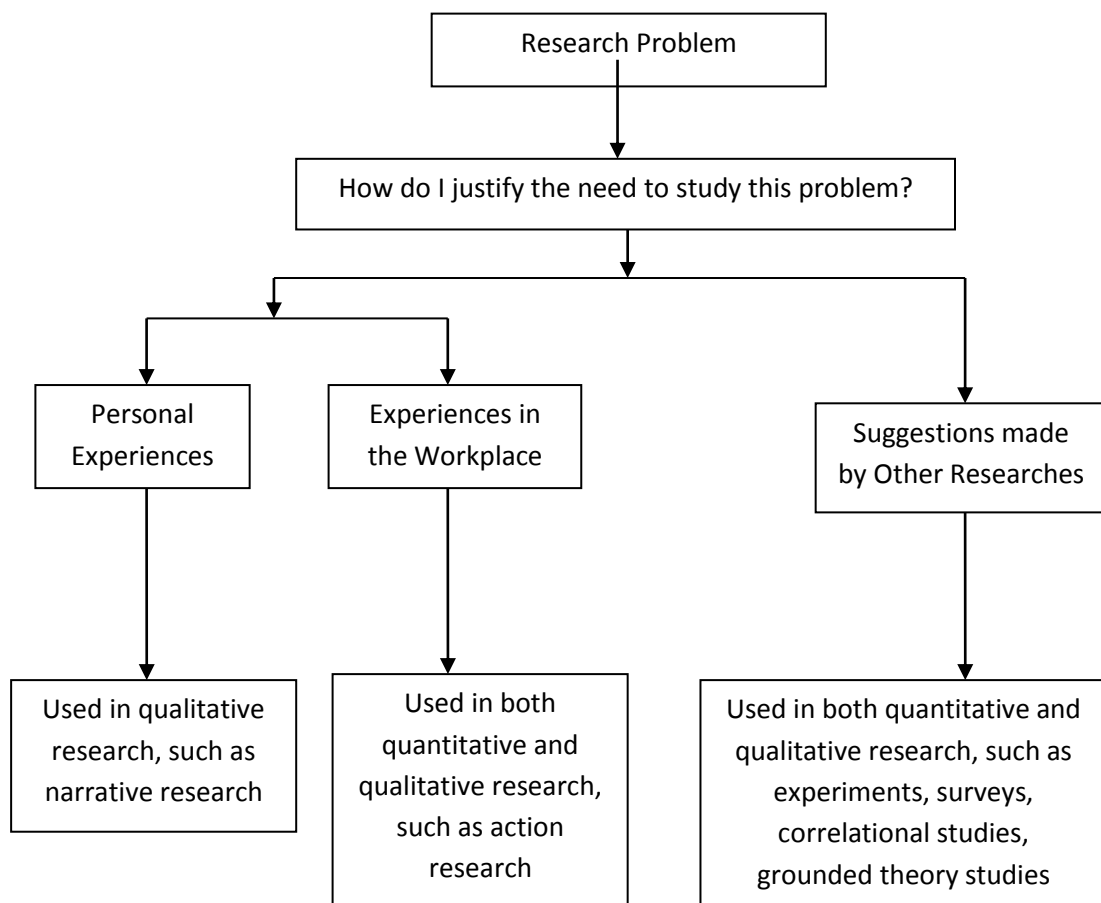
1.2.1 Low Enrolment Situation of Vocational Education

VTE objectives and policies have been outlined in the Fifth Five Year Development Plan (FFYP) (1997-2002) and National Education Policy-2000 (NEP-2000) is that the enrollment capacity of the technical and vocational institutions shall be raised from 3.3% of the student population at secondary level to around 20% by the year 2020. It also says that for expansion of VTE at secondary level, the introduction of SSC vocational (Voc) course in the Vocational Training Institutes (VTIs), Technical Training Centers (TTCs) and selected secondary schools including establishment of 30 Textile Vocational Institutes (TVIs) and the private involvements and initiatives in the delivery of TVE programs will be encouraged. For these steps, the enrollment of VTE at secondary level has increased to about 8% from 3.3% by 2001. In Seventh Five Year Plan (7thFYP, FY16-FY21) the Government plans to increase the enrolment in vocational and technical education from the existing 8% to 25% within the next 10 years. A target for 40% female enrolment in technical and vocational education and training (TVET) by 2020 has been set. Stipends and other financial support will be provided to the poor, especially female students, to encourage enrolment, retention and completion. Still the enrollment of VE has not increase up to the satisfactory level. Even the entire drop-out student from the general education does not get themselves admitted into VE, though there is a chance to enter VE after the completion of class VIII.

1.2.2 Justification of the Research Problem

Justifying a research problem means presenting reasons for the importance of studying the issue or concern (Creswell, 2008). It is not only state the problem or issue; it is needed to provide several reasons that explain why this issue is important. In the discussion of above several paragraphs provide some justifications to the need to study. For conducting this study, the researcher followed a process which is adopted from Creswell (2008).

Figure 1.1: The process of justifying a research problem



Source: Creswell, 2008

In this study, it has been estimated that for every single person in the labor force with a technical/vocational qualifications there are more than 104 others who have completed Secondary School Certificate (SSC) or Higher Secondary school Certificate (HSC) and 34 others who have gone onto a university degree or higher (SFYP, 2011). Vocational qualifications/training outside the formal school system also has no more changed, at present, an estimated only 1.9 million persons (about 1.7% of the total working age population) have participated in a formal training course outside the general school system (BBS, 2018).

Steps have been taken to a great extent by the Government and Non-Government Organizations (NGO) to overcome these problems. The Bangladesh's National Strategy for Accelerated Poverty Reduction (NSPR) has given priority to vocational and technical training as a major focus of educational reforms in the medium term (WB, 2006) and the NEP-2010 has also stated skilled workforce is an essential concomitant of national development, for this reason, the highest importance will be given to turn our students into competent manpower in view of national and international demands through vocational and technical education (VTE). There are various steps taken by Government and NGOs were enhanced.

The skill development system has its inadequate orientation to the labor market. Formal providers of technical and VE and training do not have strong linkages with the private sector employers that drive the changing patterns of labor demand nor do they have proper incentives to build those connections which would ensure that skill development courses are relevant and useful to both graduates and employers (WB, 2006).

For appropriate policies and programs of the labor market, Government established a National Skills Development Council (NSDC) in 2008 whose mandate is to develop and implement a

national policy for skills development, oversee key reforms, co-ordinate activities and monitor implementation of TVET and skills training. In 2011, NSDC approved a policy (National Skills Development Policy (NSDP) -2011) which states that VE programs in schools such as the SSC (Voc), HSC (Voc), and HSC (BM) will be revised to ensure that the vocational components are based on industry competency standard and that students only receive NTVQF (National Technical and Vocational Qualification Framework) qualifications if they are assessed as competent. In 2008, TVET Reform Project, an initiative of The Govt. of Bangladesh set goal to ensure Bangladesh's competitiveness in the global market and reduce poverty by improving the quality of VE and training.

In spite of all these initiatives, the country has been suffering from lack of skilled manpower. So, it is the matter of research to see why the enrollment of VE does not increase and what types of factors create obstacles to the enhancement of quality, suitability, expansion and the other prospects of VE.

Mentioning the above discussion it has been observed that the VE in Bangladesh focuses some challenges and providing proper quality of VE may have prospects in wide range in context of national economic development. That is why an empirical study of problems and prospects of VE is a problem and researcher should be made suggestions on the field so as to facilitate the institutions providing quality VE to make the future generations skilled, productive, and competent and job market oriented labor force/manpower to mitigate the local and global needs. Some acute problems of VE will have been marked whose are really the obstacles of providing VE and also will have found that some windows of prospects in VE. So, the field of this study which has chosen significantly is important.

1.3 Research Questions

In pursuance of the problem statement, this study raises a main question which is divided into subsidiary questions. The main research question is as follows:

What are the factors related to the challenges and prospects of VE and what are their effects on the society to increase enrolment in VE and to develop the country by creating skilled manpower?

In order to address the main question, the subsidiary questions are as follows:

- 1) What are the factors related to the challenges and prospects of VE?
- 2) What is the present state of VE (SSC Voc) in Bangladesh?
- 3) Why the enrolment of VE (SSC Voc) is lower in Bangladesh?
- 4) What is the role of VE in Bangladesh?

1.4 Research Gap

The study of VE and its problems and prospects has received intellectual attention for the last four decades in Bangladesh. A considerable body of literature which deals with variables related to VE effectiveness and improvement, institutional performances, public awareness, social acceptances, costing, curriculum and other challenges faced by the students, teachers and stakeholders, has been produced. However, none of this literature has produced a definite answer on how to face the challenges of VE and on the existing situation of VE and its prospects in Bangladesh.

At present, a huge number of studies have reflected a growing interest by various researchers and skilled development sector authorities about the institutional level, especially in secondary level

in VE domain. Particularly, research has revealed different views that exist between researchers and scholars as to whether VE has a measurable effect on producing skilled man power to develop a country. Therefore, an attempt has been made to invest patience into the literature to form a theoretical base for the investigation of the variables related to challenges and prospects of VE. The researcher has tried to identify the gap in the field of proposed research. To the best of researcher knowledge, no one had done the proposed study. The publications related to the proposed study are very few in number. For examples, Rafique (1996) stated that TVE programs of Bangladesh only offer old programs and topics. Alam (2003, 2007) showed that most of the elite parents think that VE is less prestigious. The CPD (1999) reported in its policy paper only about the importance of TVE for the development of mid-level technical manpower. Siddika (2010) discussed only about SSC vocational under the circumstances of food processing and preservation. Foysal, et. al. (2012) highlighted the present status of VE and found out the difficulty of implementing VE only in the model schools and colleges in Bangladesh. Numan and Islam (2013) discussed about current situation of VET in Bangladesh only Bangladesh Open University offered programs. The researcher already reviewed more related researches accept these to find out the gaps of the researches done by the other researchers and scholars. In the literature reviewed so far, the researcher did not find any directly related research or articles on the present study. No empirical research was carried out so far in Bangladesh which investigates the problems and prospects of secondary level VE in Bangladesh. So, it is an important and contemporary issue of the research and it would be beneficent for the country, Bangladesh.

1.5 Purpose of the Study

The aforesaid research questions have guided the purpose of the study was to investigate the factors related to problems (challenges) and prospects of VE. This investigation was prompted

by the low enrolment status in secondary level vocational education. The study also engaged to understand the factors relating to low enrolment of VE in Bangladesh, to analyze how is the background characteristics of participants associated with the factors relating to VE and to examine the effects of background characteristics of participants on the factors relating to VE.

1.6 Rationale of the Study

A number of reasons prompted the researcher to engage in this study. Firstly, the researcher was greatly interested to the matters related to VET because of occurring several incidents in surrounding areas of him. Secondly, there are serious national implications for failing to fully understand why the enrolment of VE is not raising sufficiently as per goal of the government of Bangladesh. The stagnating enrolment trend in VE, less than 10%, leading the shortage of skilled labor forces in various industries sectors, on the other hand, increases drop-out students and unskilled labor force concurrently in Bangladesh (BANBEIS, 2015). Bangladesh economy is rapidly expanding and demands of skilled manpower are also increasing, but a huge number of general educated unskilled manpower does not fulfill the gaps. It is well known that socio-economic development depends partly on education. The VET is one strategy to build human assets for poor and vulnerable people who dropped from school and may not have the opportunity of higher education. SSC (Voc) is the entry gateway of VE and it is introduced widely in VTIs, TTCs, secondary schools and others private institutions. But enrolment situation of VET is not rising. Government has a goal to raise enrolment capacity at secondary level up to 20% comparing general education by 2020 (FFYP, 1997, NEP, 2010). The present study was undertaken to investigate the problems of VE (SSC Voc) including causes of low enrolment and consequently exploring the prospects of VE. It would be hoped that after completion the study,

the researcher would be able to find out the causes of low enrolment in VE and give time befitting recommendations in the context of Bangladesh.

1.7 Significance of the Study

The research can be conducted successfully; the research findings may contribute in the following ways:

- a) The respective authority will have a clear picture/idea of the real life situations of VE in Bangladesh that will facilitate sustainable and time befitting policy formulations for development of VE.
- b) It will be able to guide to develop a skilled labor force
- c) After all it will contribute a lot to the economic development of Bangladesh.

1.8 Assumptions of the Study

In order to proceed with this research study, the researcher made the following assumptions drawn from the VE related literature and personal experiences from the interaction with vocational institutions and other stakeholders.

- i) VE may be a neglecting issue in the society.
- ii) There are many kinds of problems existing here including low enrolment comparing with general education.
- iii) It is one of the best tools to reduce unemployment in densely populous country like Bangladesh.
- iv) Bangladesh needs major reforms in VE sector.
- v) It has wide scope to accelerate the economic growth of Bangladesh.

- vi) Bangladesh needs large number of skilled manpower in its all sectors like industry, service, agriculture, transport, information and many others. So, expansion and enrollment of VE is emerging matter.
- vii) As an entry course of VE, SSC (Voc) course needs a proper reconstruction as per the global and local requirements.

1.9 Organization of the Study

CHAPTER ONE presents an introduction to the topics of the study, the background to the study, problem statement, rationale and contribution of the study, assumption of the study. The main concepts underpinning the study are also clarified in this chapter.

CHAPTER TWO provides the review of related literature in order to create a theoretical platform upon which this study is built and an explanation of the conceptual framework of the study is built by conducting an in-depth study and analysis of both international and Bangladeshi literature.

CHAPTER THREE is a description of the research approach, design and methodology. The instrument used in this study, the questionnaire and interview schedule, are thoroughly explained in this chapter.

CHAPTER FOUR presents the factors related to the problems and prospects of VE.

CHAPTER FIVE presents the results and discussion of the data related to present state of VE.

CHAPTER SIX presents the results and discussion of the data related to problems of VE which leads to low enrolment.

CHAPTER SEVEN presents the results and discussion of the data related to prospects of VE.

CHAPTER EIGHT presents the qualitative analysis of the findings from the present status, problems and prospects of VE.

CHAPTER NINE is the concluding chapter of the thesis, comprising a synthesis of the findings from the present status, problems and prospects of VE.

CHAPTER TEN presents the conclusions and implications of the study by focusing the contributions and suggestions for further research.

CHAPTER TWO

Literature Review

2. Overview of the Chapter

The study of VE and its problems and prospects has received intellectual attention for the last four decades in Bangladesh. A considerable body of literature which deals with variables related to VE effectiveness and improvement, institutional performances, public awareness, social acceptances, costing, curriculum and other challenges faced by the students, teachers and stakeholders, has been produced. However, none of this literature has produced a definite answer on how to face the challenges of VE and on the existing situation of VE and its prospects in Bangladesh.

During this period, a huge number of studies have reflected a growing interest by various researchers and skilled development sector in the institutional level, especially in secondary level in VE domain. In particular, research has revealed different views that exist between researchers and scholars as to whether VE has a measurable effect on producing skilled man power to develop a country. This section therefore ventures into the literature to form a theoretical base for the investigation of the variables related to challenges and prospects of VE. It has been tried to indentify the research gap in the field of proposed research. To best of my (researcher) knowledge no one had done the proposed study “Problems and Prospects of VE: An Empirical Study in Rajshahi Division, Bangladesh”. The publications related to the proposed study are very few in number. The researcher already reviewed related researches to find out the gaps of the researches done by the other researchers and scholars.

2.1 Conceptualization of Vocational Education

The VE is one of the major sections in educational discipline and it has been conceptualized in many different aspects by various scholars and countries. The VE is referred as training for a specific occupation in agriculture, trade or industry. Through a combination of theoretical teaching and practical experiences provided by many high schools in their commercial and technical divisions and by special institutions of collegiate standing.

Becker (1964) defines that in the human capital framework, knowledge and skills are specific forms of human capital. While general education is knowledge intensive, VE and technical education are skills intensive.

Williams (1985) also defined that VET as a sector within the education system poses a number of difficulties. For the most part, general and academic education is seen as that which builds analytical skills, knowledge and critical thinking, while VET develops craftsmanship, practical experience and practical problem solving. However this simple distinction does not hold up to scrutiny. Critical thinking and analytical skills are needed in the case of a good plumber or electrician who must routinely make judgments in order to solve problems. Equally a good surgeon needs a large set of practical skills to masterfully operate a patient. These simple distinctions can also lead to confusion and academic drift of a vocationalization of higher education.

Venn (1964) explained the etymology of the term vocational as a sort of “calling”. He refers to it as education aiming at a stable job and a stable career in a recognized profession, pinpointing its emergence somewhere in the 19th century industrial revolution. However, in more recent times, this cannot be said to apply. Social institutions, religious, political, cultural, economic and social

which were once based on permanency were subsequently caught up in the twentieth century trend of change. As the reasons for VET did not remain obvious over time, its status started to be put in question. Indeed, much of the literature on VET focuses on the lack of a clear definition of the term vocational.

Moodie (2002) analyzed existing definitions in four dimensions – epistemological, teleological, hierarchical and pragmatic. He argued that a definition is needed on all four levels, stating that one may consider VET to be the development and application of knowledge and skills for middle level occupations needed by society from time to time, such a pragmatic definition seems to match the approach of UNESCO in its revised recommendations on TVET, giving preference to the term TVET over the term VET.

VET is offered at different levels of educational systems and in a variety of educational institutions. Chappel (2003) made this very clear, noting that in Australia, VET is provided by

- Educational institutions including schools, TAFE (Technical and Further Education), Colleges, Adults and Community Education (ACE) and Universities.
- Public, Private and Non-Government Providers of education and training
- Industry, In-house and Organization-specific training and
- Small business and private training consultants.

Seyi (2014) examined that the concept of VTE in Nigeria under secondary school education system. The study expressed that in Nigeria, at the secondary level, advocated for the three years junior and three years senior secondary school system. The junior secondary is described as pre-vocational and academic in nature, so that those who may not continue to senior secondary will have the opportunities provided in form of vocational training in order to make the learners

immediately employable. The aim and objectives of VTE in Nigeria are as follows: i) to provide trained manpower in applied sciences, technology, and commerce particularly at sub-professional grades; ii) to provide technical skills necessary for agricultural, industrial, commercial and economic development; iii) to give an introduction to professional studies in engineering and other technologies; iv) to give training and improving necessary skills leading to production of craftsmen, technical and other skilled personnel who will be enterprising and self-reliant; v) to enable young men and women to have intelligent understanding of the increasing complexity of technology.

Clarke and Winch (2007) traced different definitions of VET back to the historical context of the nation-state. They contrast the German and French systems with the British systems. In the former two systems, the state is instrumental in setting a politically defined program of VET in the structuring of the labor market and in determining relations between capital and labor. By contrast, in Britain, the state's role is simply one of governance or supervision, thus introducing new sets of rules or laws, resulting in an apparent or real fragmentation of relations between labor and capital, often arbitrarily linked to state institutions and thus unresponsive or unpredictably responsive to local or state policies. Consequently, the authors conclude that the British VET model is less one of state intervention and more of social injustice (Clarke and Winch, 2007).

Different features of VE are discussed such as effectiveness of VE, relation between VET and Development, Connection with the labor market etc. It is hoped that engagement with this aspects will provide a better understanding of the place and role of VE in the improvement of skills of labor market.

It is important to deal first with the following aspects to serve as the building bricks of VE, before considering how they manifest themselves in the application of vocational trades in the different countries: historical context of VE; purpose and functions of VE; prospects of VE, and key elements of VE which will encapsulate the variables related to problems of VE etc.

2.2 Historical Context of Vocational Education

The historical context of VE includes the appearance of this concept in the educational field and how it has impacted on the changing role of economic development of a country as a major tool. The first formalized education system in America can be traced to apprenticeship agreements of colonial times. The first education law passed in America, The old Deluder Satan Act of Massachusetts Bay Colony, set specific requirements for masters to teach apprentices academic as well as vocational skills. By the mid 1880s, VE in the form of industrial education was synonymous with institutional programs for the youth (Gordon, 1999).

The beginning of the major federal influences in molding and shaping secondary and Post-secondary (level) VE began with the Smith Hughes Act of 1917 (Swanson, 1951). Smith-Hughes provided for a continuing appropriation for VE in agriculture, trades and industry, and home economics and for teacher training in each of these fields. The Smith-Hughes Act provided for a Federal Board for VE and separate state boards (Roberts, 1957). It is important to note, as historical context, that the Smith-Hughes Act established VE with a separate board from that of the state board for “regular education as well as with separate funds, separate teacher preparation and certification, separate students, and separate and segregated curriculum. Since the beginning of this separatism in 1917, teachers in VE have predictably emphasized job-specific skills, almost to the complete exclusion of theoretical content (Hayward and Benson, 1993).

A significant change in federal policy and direction began in the early 1960s with passage of the VE Act of 1963. In 1984, Congress passed the Carl D. Perkins Vocational Education and Applied Technology Act, the forerunner of today's federal legislation. The Perkins Act contained two main objectives: (i) the improvement of vocational programs and (ii) better services and increased access to VE for students with special needs. These two goals proved to be both ambiguous and overly ambitious, given the state of the economy and the state of education at the time. The original Perkins Act set aside 57% of the Federal grants to states for disadvantaged groups of one form or another and 43% for something called "program improvement". In the late 1980s and early 1990s, VE experienced unprecedented enrollment percentage increases from special populations as an increasing number of general student groups opted out of VE to take more academic courses and as funding favored inclusion of special populations in VE programs.

Responding to various political, economic, and social forces, current debates on the future of public schooling are increasingly framed within the discourse of occupational relevance, globalization, and international market competition. Reflecting a historical pattern consistent with various market economy crises, governments and corporations from industrialized countries around the world are heralding VE reform as a major determinant of economic success within the new global economy (Spring, 1998). The 20th century has witnessed considerable debate on whether instrumental skills-based education better prepares students for their occupational life than traditional academic programs. The historical development of VE in the 20th century reveals 2 distinct visions on its role in preparing students for occupational and social life concerned with the present popularity of instrumental skills curricula in VE.

In the UK in 1989, the government announced that schools would in future be allowed to offer vocational courses like those from the business and technology education council (BTEC). It also

made an effort to rationalize Britain's renowned jungle of vocational qualifications (Benn and Chitty, 1996) in an attempt to create a single new system of vocational qualifications: GNVQ for educational qualifications and NVQ for qualifications gained through work.

In 1960 the Directorate of Technical Education (DTE) was established in East Pakistan for development of TVE. The DTE initiated rapid development and expansion works of degree, diploma and trade level technical education in the country.

To cope up with increasing magnitude of academic activities, the need for establishment of a "Statutory Board" was keenly felt. A statutory body namely "The East Pakistan Technical Education Board" was established through Act.No.1 of 1967 of the then East Pakistan Assembly, which is how Bangladesh Technical Education Board (BTEB).

Thus the BTEB came into existence with the jurisdiction over the entire area of Bangladesh to organize, supervise, regulate, control and develop TVE. The Board in its present form became operative with effect from June 1969.

2.3 Function of Vocational Education

Fagerlind and Shah (1989) suggested that education and training raise the productivity of workers, and increase their life time earning capacity according to their concept of human capital. Bennell (1996) argued that in spite of less academically brilliant, rate of return of TVE student is still high. Colin (1999) suggested that TVE not only prepares skilled labor but also provides general education to the students. Bennell (1996) also observed that all developing countries need balanced development through all of the educational sectors in order to make significant progress in terms of national development. Colin (1999) also said that TVE can play vital role for development planning, but he warns that it depends on policy makers because it

will not be successful without having enough qualified teaching faculty and sufficient facilities to offer quality and up-to-date TVE. He also claims that these are not limitations of TVE course, but limitations of the educational policy of the country.

The TVE contribute to national development by considering some certain factors like time befitted modern courses linked with local and global demand, choice of best level of schooling and need to develop TVE courses up-to-date, wider range and relevant with job market, student age, duration of courses, merit and cost effectiveness (WB, 1991).

Bangladesh urgently needs to utilize its over-crowded population and large labor market. To improve the quality of employees, Bangladesh's people need to be trained in modern professional-based and job-oriented technical, technological and vocational programs (WB, 2002). The WB also described that the greatest strength of Bangladesh is its' people which are ethnically homogeneous, well known for hard work and resilience under stress. The WB also noted that Bangladesh has no more alternatives in order to gain development, except properly utilizing its population (WB, 2002).

Alam (2003, 2007) showed that at present Bangladesh is mainly offering general subjects but to achieve development, it must be offer a variety courses of disciplines such as technical, vocational, professional, agricultural, and so on, because the country needs a balanced distribution of manpower for all professions, so that the vast population of Bangladesh can contribute to economic growth by participating in different professions. For social equity, respect and freedom, people should be involved in different professions naturally. Alam (2007), also discussed that when governments see increasing demands for skills then labor supply shows rapid growth, as well as employment grows quickly or increases significantly. It is also true that

governments have called upon VET systems to help getting jobs for unemployed young people and older workers, to reduce the burden on higher education, to attract foreign investment ensuring rapid growth of earnings and employment, and to reduce the inequality of earnings between the rich and the poor.

From the above discussions, it seems clear that from the economic, social and political standpoint, national development requires VE which is intended to meet a range of different national needs. These include those associated with building an appropriate workforce, and stronger economy, as well a cohesive, literate and healthy society. Economic freedom and social freedom are interrelated; one cannot thrive without the others.

2.4 Present Context of Vocational Education in Bangladesh.

Bangladesh is passing the rising season in VE but has not made yet a remarkable development. In this section, a discussion is made regarding the current situation of Bangladesh and the role of VE in national development. Jeong (1999) suggested that workers need to be trained before joining at the labor force to be more productive and to perform their tasks properly. Atcharena and Caillods (1999) said that before joining at the labor force, workers need the training and also need in-service training to maintain up-to-date skills. But, Bangladesh has been producing more general graduates rather than TVE manpower because already establishing more traditional educational institutions rather than TVE institutions. All countries, especially in developing countries, development has been always progressed through multidisciplinary activities which hold TVE in inherently and depends to significant extent on skilled person from relevant disciplines in the country. In this regard, TVE may help the students to enter the labor market and further education with a solid foundation for its multidisciplinary nature (Watts, 1985). But

in Bangladesh, many unemployed young people are engaged in socially undesirable activities such as drug-taking due to drop-out from general education and absence of TVE resulting in social problems. The present drop-out rate is high at secondary level (Grades 9-10); about 52% for males, and 58% for females (BANBEIS, 2007).

The WB (1990) showed that these drop-out students try to join the labor force without any requisite training or skills, because general school curriculum does not have a TVE component. The BTEB is only affiliating authority to introduce TVE education in Bangladesh. In the local community there are only a few schools providing TVE under the BTEB and Most of the schools of that are non-government. The drop-out students cannot gather any training to enter the job market. For further education, the number of polytechnic institutions is also less in comparison with most other countries, and the population density of Bangladesh. In service training is also low because only one government VTTI offers in-service training for the teachers, but its effectiveness is questionable. For this reason, effectiveness of TVE teacher performance in teaching is in front of question. In addition, the present TVE system provides little in-service training for workers. So, secondary school-leaver workers have little chance to take on professional training in their lifetime, and instead gain experience from work. Hyland (1999) considered that workers need training before entering the job market and also need 'inside' training. He also highlighted the importance of lifelong learning if the worker is to cope with changes.

Colin (1999) insisted that in order to meet the challenges of the 21st century labor market, TVE needs to offer most up-to-date technical, professional and job-oriented courses. He also said that developing countries must do the investment to provide modern up-to-date TVE programs at any cost because such investment will help the countries to build up the appropriate human resources

whose will contribute to develop nation and enrich labor market. Bangladesh has not made desired progress to moderate and to innovate and provide up-to-date TVE programs (WB, 1990, Rafique, 1996).

Rafique (1996) argued that TVE programs of Bangladesh only offer old programs and topics. He suggested that Bangladesh needs to revise TVE programs and to introduce more modern technology based programs such as information technology, computer science, e -commerce and so on. He also reported that TVE programs cannot supply technician level workers in Bangladesh due to lack of providing good programs with an up-to-date curriculum because 64% of technician level jobs are held by people without any formal education or training.

The BANBEIS (2007) noted that, after independence, many attempts have been made for the renewal of education policy, but the desired development of VE has not yet to be happened, because most of the educational policies and developmental steps were taken for general education.

Centre for Policy Dialogue (CPD) (1999) reported that the importance of technical and VE for the development of mid-level technical manpower which alone could guarantee accelerated economic growth of Bangladesh. The development experiences of some selected countries such as India, Germany, Japan, Pakistan, South Korea and Singapore revealed a positive correlation between economic growth and production of mid-level technical manpower. He also noted that the role which the Bangladesh Government could assume to develop TVE in the present context was to expand the TVE at the secondary level in order to increase the supply of skilled manpower with technical and vocational skill as per the requirement of the job market.

The above comments se comments hint that TVE in Bangladesh is not developed sufficiently to meet the challenge of building appropriate human resources.

2.5 Challenges to Vocational Education

There are many challenges to develop TVE in Bangladesh and these are summarized below:

2.5.1 Studies in Bangladesh

In Bangladesh the quality of TVE is seemed to be poor and cannot provide sufficient significant knowledge for jobs (WB, 1991). Besides, village students cannot have access TVE schools easily because most of the TVE schools are also located far from rural areas.

Gallart (1988) claimed that students of TVE cannot realize their future opportunities. They suffer anxiety for becoming a laborer. It should be obliged to authority to eradicate such anxiousness and help them understand that TVE can prepare skilled manpower for the world of work, and opening the door to pursue higher education with a solid foundation.

Rafique (1996) discussed in his studies that higher education is very limited for TVE schools graduates in Bangladesh. Once a student has a gap of two years academic study, he/she cannot enroll in further higher education. If a TVE graduate joins his/her job after completion of secondary and higher secondary education, in these circumstances, he/she cannot come back into further education. Higher educated people in general disciplines can work at any place but higher educated people from TVE can only work in TVE related placements, which is low in terms of social prestige.

Alam (2003, 2007) showed that most of the elite parents think that their children will not become a laborer. In spite of less academically able, parents try to push their children into higher

education violating the law and in this case they also send their children to study abroad. In such circumstances, poor parents become dishearten about their children education.

Siddika (2010) discussed about SSC (Voc) under circumstances of food processing and preservation. She shows that specific approach is needed to deal with the competency-based curriculum development in TVET system. Learning and Teaching Methods are old fashioned and inadequate for knowledge based skills.

Foyso, et al. (2012) investigated the present status of VE and found the difficulty of implementing of VE in the model schools and colleges of Bangladesh. The study showed that model schools and colleges are the better places to offer the quality VE. The implementation of VE in model schools and colleges has been going on for a fairly long time. The selected model schools and colleges are equipped with sufficient labs, lab equipment as well as teachers but it is matter of fact that VE is not properly practiced in these organizations.

Numan and Islam (2013) discussed the current situation of VET in Bangladesh by emphasizing its effort and attainment as well as the recent changes. They provided some suggestion for the policy maker to introduce effective methods for VETs in Bangladesh. Bangladesh Open University (BOU) is the only one distance educational institute in Bangladesh which offers education for under privileged, drop-out students especially for the female and adults.

BANBEIS (2011) assessed the quality of VTE in the specialized subjects/areas offering in independent/attached SSC (Voc) institutions which are getting salary subvention from the Government, and also assessed the skill development in the offered courses and deployment of the students in the concerned trades. This study revealed that most of the institutions are running well, problems of all institutions are similar like lack of sufficient number of modern

lab/workshop equipments, teaching logistics/aids, lack of sufficient number of trade instructors and advanced training of related trades. The study also found that lack of necessary investment fund to develop necessary physical facilities and introduction of demanding trade courses and lack of adequate monitoring of the institutions by the concerned authority.

Ahmed (2010) discussed about TVET curricula reform demand in Bangladesh. This study investigated empirically the diploma-in-engineering (electronic technology) curriculum including student assessment approach and learning/learning outcomes, and compares them with Germany's initial vocational training in the dual system. This study also investigated and found that the student assessment approaches in Bangladesh and Germany differ greatly regarding their theoretical requirements and practical relevance. The curriculum content analysis and the analysis of student assessment approach in Bangladesh showed that the diploma curriculum mainly focuses on theoretical matters but Germany's learning field based curriculum in vocational schools focuses on practice oriented learning and teaching, and fosters the trainers knowledge transfer capacity. The study also indentified the strengths and weakness the current diploma-in-engineering (electronics technology) curriculum in Bangladesh and made some suggestions to modernize it accordingly.

The BIDS (2014) commented that SSC (Voc) program is economically viable according to the length of courses because only 4.0% (of whose) graduates were found employed. HSC (Voc) program was somewhat better at producing for the labor market, but these institutions are constrained in ability to respond to market needs. A better alternative would be to support expansion of TVET provision outside the formal school system. After finishing general education and formal schooling, students could enroll for intensive skills development that is shorter and better related to immediate market needs. The TTC model under BMET seems better

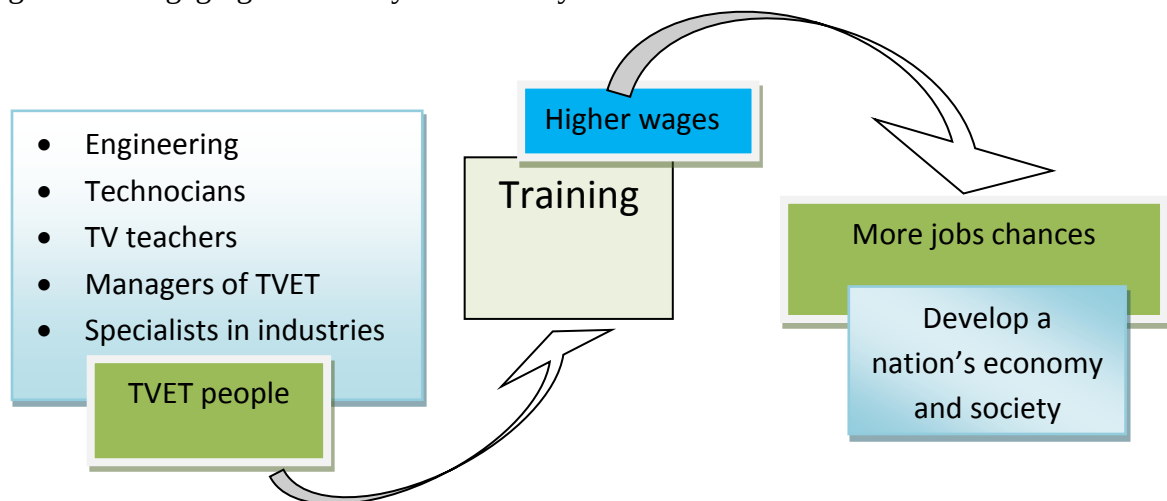
suited to this approach. The extensive support provided at present for development of public sector institutions, including DTE, BTEB and BMET as well as for public providers, a strong case can be made to focus the support on the private sector.

Rahman, M. M. and Raihan, M. A. (2013) conducted a study about eradicating prime problems of TVET in Bangladesh. They explored that Bangladesh has a large number of unskilled and unemployed people. The government of Bangladesh has been trying to develop TVET sectors. They also express that to enhance productivity, stimulates competitiveness, and bring about economic development, skill developments are key aspects for ensuring quality of TVET. The aims of the article were to explain the essential roles of TVET for human resource development and to explore the inherent problems associated in TVET programs in Bangladesh. The article has addressed four roles of TVET for human resource development is 1) Socio-economic development 2) Global competitiveness 3) Career mobility, and 4) Flexibility in qualifications recognition, and the common problems were i) Engaging community and industry in TVET ii) Financial difficulties iii) TVET students to pursue higher education iv) Relevance to the labor market and traineeships v) Difficulties faced by TVET teachers, and vi) some emerging problems of TVET. The study suggested that in order to develop economy and society of Bangladesh, it is need to take challenge to change the mindset of parents, the community and stakeholders about VE being second choice to academic education. Most parents want to see their children becoming a white color job holders like engineers, doctors, lawyers etc just because they believe this will give them better job opportunities. It is the major obstacles to improve the social status of TVET. If students who received a vocational education routinely earned better incomes than those who choose the academic route, then parents would factor this in their decision making (UNESCO & ILO, 2002). So, the challenge is to create vocational

programmes that deliver professionally successful graduates when it is rise to this challenge, the brightest students will be fighting for a place on TVET schemes.

Another negative image of TVET is about social class. A plumber can be making as much money as an engineer but at the end of the day, he is still a plumber with lower social status. Money does not always equal higher social status. In some circles, apparently a university degree is still the ticket to social mobility even if does not lead to employment or more money. How is it possible to change the perception? The part of the answer to this interesting question is that better quality of TVET will lead to higher performance with definite path to higher education and productivity of TVET trained graduates and hence higher wages and more job chances (UNESCO, 2000).

Figure 2.1: Engaging community and industry in TVET

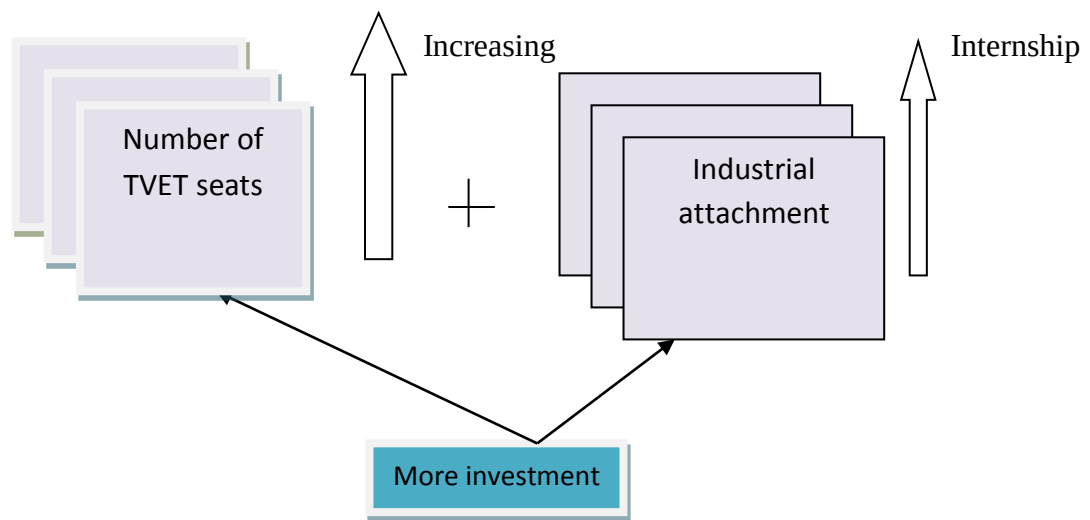


Source: Adopted from Rahman & Raihan, 2013.

Providing good TVE needs more money for practical workshop facilities, and also demands industrial attachments for internships (WB, 2002). The pedagogic systems of vocational and practical oriented subjects have an unusually multifarious expensive requirements (such as

equipment materials, resources, curriculum support system, personnel, managements requirements, etc.) which are not easily met. As a poor country, achieving a high budget for education is a real challenge for Bangladesh. it is also added that budget for TVE is very low in comparison with other sectors of education (BANBEIS, 2007). The teachers have low salary and are not getting enough supports from financial institutions (WB, 2002).

Figure 2.2: Financial difficulties

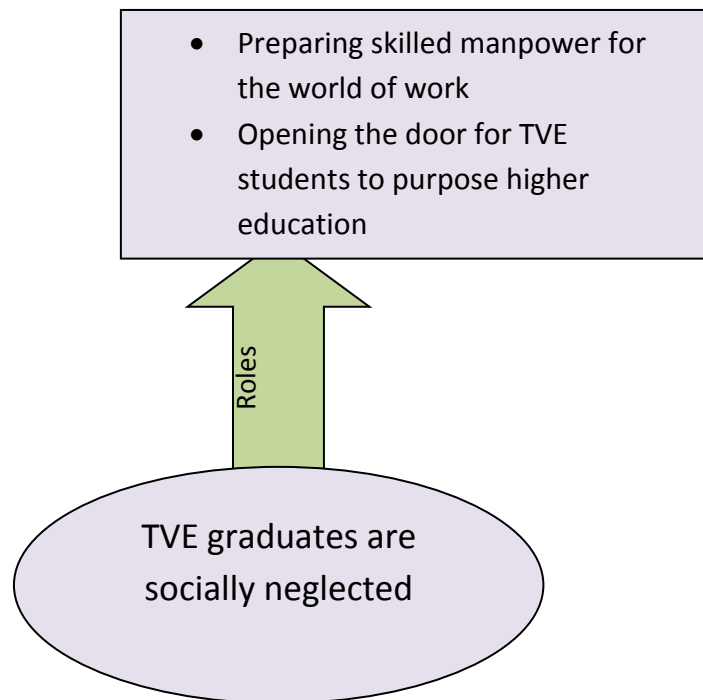


Source: Adopted from Rahman & Raihan, 2013

The TVE students always suffer anxiety about their purpose of education because they feel being only preparing as laborers. To get more profit from them, it is moral obligation to eradicate such anxiousness and help them understand that TVE has two major roles – preparing skilled manpower for the world of work, and opening the door for TVE students to pursue higher education with a solid foundation. But in Bangladesh, higher education is very limited for TVE school students. For example, once a student has a gap of two years academic study, he/she cannot enroll in further higher education. In this circumstance if a TVE graduate enters job after

completion of secondary and higher secondary education, he/she cannot come back into further education. On the other hand, higher educated people in general discipline can work at any place but higher educated people from TVE can work only in TV related placements, which is low in terms of social prestige and scopes are limited. In this context, TVE graduates are socially neglected, so bright students do not have much interest in studying TVE.

Figure 2.3: TVE students to pursue higher education

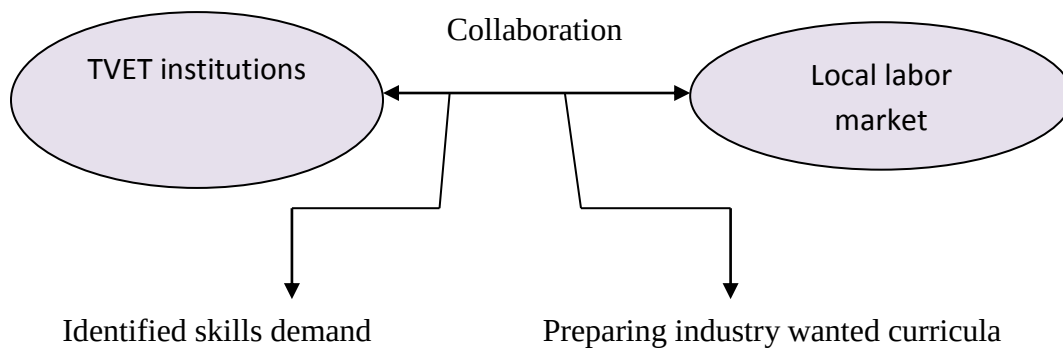


Source: Adopted from Rahman & Raihan, 2013

It is very important to remain close collaboration between TVET institution and the local labor market in order to align the curricula with skills needs of the labor market. In developing countries, most TVET curricula are supply driven, not enough input from the labor market. The

important task of the curriculum developer is identifying skills demand and matching with supply. In addition, establishing and strengthening the links between industry and TVET institutions, and develop a coordinated and flexible recruitment and training strategy to service that demand by the labor market. Capacity of TVET institutions should be enhanced by courses offering as industries needs.

Figure 2.4: Relevance to the labor market and traineeships



Source: Adopted from Rahman & Raihan, 2013

In spite of these, some emerging problems are faced by the TVET institutions. It has been seen that TVET teachers faced some difficulties to conduct classroom activities i.e. classroom management, learners' behaviors, availability and effective use of teaching materials, the curriculum, lack of proper motivation and so on. The lack of laboratories and adequate materials that reflect the real environment of the industries is also a problem in the VE and this problem may lead the class lectures to be more theoretical than practical.

Tanvi et al. (2013) showed that over the period of 2003 to 2009, the number of students in VET (SSC level) increased, but the outcome is not attractive at all. More than 1 million students were

attended SSC examination in 2009 but only 7.5% students are under VE system, which is lower than the drop-out number. Large portions of young generation are unemployed, and also a large portion of them have minimum higher secondary (HSC) level education under general system. For this reason, it is very important for Bangladesh to increase the proportion of SSC (Voc) student at least 25%, so that local industries can have enough skilled manpower that will also reduce unemployment. Apparently, Bangladesh will get the opportunity to export skilled manpower in other countries. In this study, they identified some problems in the secondary level VE i.e. i) Curriculum of VET is not updated ii) People do not have proper awareness about VET. iii) Social acceptance of VET is low iv) Shortage of skilled instructor v) Cost of VET is comparatively higher than general education and vi) Policy is not friendly with VET education.

ILO, EU, and GOB (2012) identified in the resource guide that the gender discrimination is a remarkable barrier of TVET in Bangladesh. The main purpose of this resource guide was to provide guidance, practical how-to-tools, and available information on technical resources to support the task for promoting gender equality within TVET institutions. The guide focused that women participations in TVET in Bangladesh is strikingly low, ranging from 9% to 13% in public institutions and 33% in private institutions, and the average is approximately 24%. Similarly, the number of female instructors overall is about one-fifth of the total number within technical institutes. This guide also focused some key barriers to female participation in TVET based on the findings of a combined study (GOB, EC and ILO, 2010). The types of barrier were identified as follows: attitudinal barriers, financial constraints, inappropriate training environment, lack of security in access and accommodation including sexual harassment and eve teasing, information and knowledge gaps, low prospects for decent work, and low self-confidence and fear of challenging the status quo.

ILO and EU (2012) stated in their policy study that in Bangladesh, women still deprived in the labor market, particularly in the informal sector, characterized by low paying, poor working environments and lack of security. The GOB recognized the need to reduce and finally eliminate the current disparities which existed between female and male employment rates in the labor market. This policy study stated that the overall aim of this study was to develop a strategic framework with a clear set of priorities and targets providing some specific and concrete actions and activities with liability of showing performance through a comprehensive and holistic intermix of social, economic, institutional and systemic transformational measures. To achieve the wider gender equality goals that supported and complement the main purpose of achieving the gender balance within the TVET system. The National Strategy has incorporated the following action plan from NSDC that is i) increase female participation in formal TVET institutions by at least 60% from the present 24% to reach 40% by 2020; ii) increase female employment by at least 30%; iii) increase quotas for female teachers (30%) and female staff (20%); iv) quotas for females in TVET management should be at least 10%; v) enhance positive attitudinal shifts in views regarding female trades and employment; vi) ensure gender friendly environment in education and training institutions and work places; vii) create linkage between industry demand and supply for skills; viii) establish extensive gender-responsive support systems and counseling services; ix) accommodate skill training for workers in the informal economy; x) establish adequate data management system to capture sex disaggregated data on TVET.

Sultana and Fatima (2017) discussed the factors influencing migration of Bangladeshi female workers nationally and internationally. This study analyzed the trend of Bangladeshi female migrant flow by time and destination and assessed the factors influencing migration. The

influencing factors are three types i) economic factors such as economic development, remittance earning etc. ii) demographic factors such as fertility rate etc., and iii) noneconomic factors such as religion, distance etc.

2.5.2 Studies in Abroad

Ismail and Hasan (2013) reported that many Asian countries like Malaysia adopting firstly the new and emerging technologies in industry and agriculture sector but need of those countries a higher knowledge based system and technical skill workforce. It has a significant effect on the employment, education and training of technical manpower as well as in the training of TVET. They discussed that the major problems of TVET implementation in Malaysia is lack of knowledge worker and improving the quality of TVET. They suggested overcoming the challenges by certain manners through innovation and enhancement of the system and the inspiration to develop knowledge worker.

Semuru (2014) showed that some challenges exist of implementing TVET curriculum in Nigerian Universities which includes; inadequate funding, inadequate human and material resources, inadequate capacity in the institutions for internal/peer quality assessment, brain drain and human capital flight, high incidence of cultism, examination malpractice and social and academic vices, unstable academic calendar, unattractive conditions of services for teachers, staff shortages across board, inadequate funding of tertiary institutions, inadequate collaboration between tertiary institutions and organized private sector.

Dasmani (2011) showed that the challenges confronting technical institute graduate in practical skills acquisition in the upper east district of Ghana. The study revealed that most technical graduates have not been able to enter into employment in their respective fields of training

because a large group of TVET graduates who are mostly teenagers are not enough skills required for employment. The study also revealed that inadequate supply of instructional materials, inadequate training facilities, and weak linkage with local industries for hands-on-experience for both instructors and trainees and large class size which lead to ineffective and inefficient graduates supply. This inadequacy brought challenges to the graduates for the job market. This study suggested for facing the challenges that all stakeholders should contribute in providing adequate training materials, large class size should be discouraged, ensure the practical lessons to the all institutes, introduce industrial attachment programs for both staff and students and encourage the students to enter into self-employment at the end of their course.

Commonwealth secretariat (2013) identified the policy gaps and key issues and determined the level of activities undertaken in the countries. This study conducted among the five countries of commonwealth was selected based on the following demographic criteria: large young populations, low skill levels among young people and a low economic growth rates. The countries selected were: Bangladesh, The Gambia, Jamaica, Kenya and Papua New Guinea. The research focused only on the formal TVET sector. This study showed all types of initiatives for developing TVET sector in Bangladesh and identified policy gaps and priorities like: TVET is not demand driven but supply driven and is not responsive to the job market, corporate sectors and industry are not in curriculum development to make it demand driven, lack of co-ordination for formal, informal and non-formal teaching and learning across the various ministries and training organizations, the role of authorities in terms of skill development is not well defined, no policy has been developed for the recognition of prior learning, it is still legislated under the TVET policy Act 1967 and regulation of 1975 and quality assurance is weak with poor monitoring, evaluation and inspections. This study also revealed the problems of TVET that

there is duplication of courses across various ministries and organizations with different curriculum for the same types of courses, requiring significant improvement in key learning areas including English communication skills, computer literacy, new technologies in manufacturing productions, microelectronics and e-commerce, insufficient links between TVET institutions and employers and the wages of TVET graduates are not higher than individuals in general education and TVET course fees are expensive compared to other education subsectors.

Olusola (2014) stated that the issue of unemployment in Nigeria is one of the most critical problems the country is facing today. He showed in his study that in curbing unemployment in Nigeria, efforts should therefore be geared towards improving the economy by way of providing the right skills to the people, through technical and vocational education to generate employment opportunities. This will assist in no small measure to tackle economic problems and lead to a more prosperous life.

Loyalka, P. et al. (2015) stated their WB group policy research paper in context of China that VET is promoted by the number of developing countries as a way to build human capital and strengthen economic growth. In this study, they tried to understand whether VET at the high school level contributes to human capital development in China as a developing country. The study results showed that students who attend vocational high school, experience is that absolute reductions in math skills. The finding suggested that the rapid expansion of vocational schooling as a substitute for academic schooling can have detrimental consequences for building human capital in developing countries such as China.

Sabiralyani, et al. (2015) performed a research whose purpose was to study the factors due to seek which rural areas of Pakistan have propensity towards the TVET. The research had also

taken objectives were to find out the socio-economic and demographic characteristics of the respondents to investigate the rural community participation in TVET and its impact upon the living standards along with its participation in rural poverty mitigation. The research showed that the propensity towards getting technical-vocational education in Pakistan was due to the satisfaction of its professionals and students regarding changing their living standards by poverty mitigation, job contentment, training, and courses and skill standards of institutes.

Singh, et al. (2015) conducted a study in Bhopal Division of Madhyapradesh state, India. The study presented the importance of vocationalisation of secondary education from the point of view of the economic development of the developing country like India. The study showed that secondary level VE will help to solve the problem of unemployment, to prepare the way for self-employment, to inculcate the habit of hard work, and dignity of labor among the students. The study also revealed that there is a need to strengthen vocational education in higher secondary schools by taking the following steps: 1) More full time teachers should be appointed 2) The teachers should be posted according to the sanctioned posts 3) There is an urgent need to introduce more vocational courses in rural areas 4) There should be proper arrangement of laboratory equipment, tools and raw materials in vocational higher secondary schools. There should be an arrangement of school-industry linkages 5) The industry will not be available in rural areas but concept of establishing production-cum-training-cum-service centers in rural schools should be established 6) Better library facilities should be available 7) Considering the multidimensional objectives of VE there is an urgent need to popularize it.

Zirkle (2017) showed that the United States VE system has long suffered from negative perceptions among students, parents, school personnel policy makers, and business and industry representatives. In the 30 years, U.S. VE system has undergone many changes and reforms like

curriculum reforms, skill gap between schools and needs of work places, increase linkage to post high school training to meet the needs for a higher educated work force. Additional changes have occurred on increasing school-business/industry collaboration, improving teacher quality and marketing the value of vocational education. In spite of performing many changes and reforms, challenges still remain including funding for vocational education. Some states of the United State have invested heavily in vocational education, while others have not, skills gap are created in geographical area. Due to lack of providing career awareness and guidance, students whose are studying in high school level feel indecision “What will they do? Preparation for work or preparation for further technical study? Or both?”. In addition, vocational education suffers negative image and negative public perceptions in some state of U.S.

Thanqvist and Hallqvist (2014) stated that the various forms of initial VET that have been established in Sweden during the last decades, and it will illuminate how different challenges have been tackled in various ways. Though the largest VET-form in Sweden is school based VET within upper secondary school and it suffers various problems. To mitigate these challenges the Swedish VET-policy reform as these ways: i) Finalizing the University-oriented VET system; ii) Decentralization and the emergence of independent schools; iii) Innovations in-between school and the world of work; and iv) A revival of apprenticeship within the educational system. The study also found the current challenges in bridging the initial VET to the world of work are as follows: i) weak connection between the world of school and the world of work; ii) weak apprenticeship system that indicate, Sweden differs from many others national VET-system in that there is very formal frameworks for co-operation between VET providers and the labor market partners; iii) Heterogeneous nature of initial VET in Sweden complicates to access

higher education; iv) slow transitions to higher education and higher vocational education; v) different vocational tracks affect transition to higher education.

Sluis (2014) discussed the quality of VE context of Netherlands. This study is conducted to get a better clutch to enhance the VET quality from government perspective, given the presence of a variety of stakeholders and their differing values. To achieve this goal, the study quantified and compared the values of VET stakeholders and relates these to policy and practice. The study defined the quality as the set of values of the stakeholder which attached to different attributes of education. The study wanted to know what these values are and how the values of different stakeholders relate to each other. The study considered nine attributes: employers' appreciation of students, graduation rate, obtained language skills of students, mentoring hours in workplace learning, challenge, structure of the program, students' appreciation of teachers, schooling hours, and attention to civic education. This study also revealed that there are significant differences in the values.

Seyi (2014) stated some challenges in VTE in Nigeria which are as follows: a) poor organization and slow pace of implementation; b) shortage of qualified technical teachers; c) lack of equipment and infrastructural facilities for teaching learning; d) low level of funding; and e) poor remuneration of vocational technical teachers.

Ibrahim (2014) discussed that some of the challenges of TVE in Malaysia are to be faced by the support of the government efforts, to achieve a developed nation status by 2020. The author also stated that government of Malaysia has taken steps and strategies to implement a training curriculum of TVE able to produce skilled workforce based on the three main factors attitude, quality and quantity. Attitudinal challenges are the major factor of Malaysian TVE. People think

that VE bears second class status. Graduates from vocational schools are considered inferior one. They feel that vocational school is only for weak and drop-out students. Parents give more attention to education in academic schools. The author also addressed the challenges relating to quantity is that Malaysia suffers not adequate number of TVE institutions to meet the needs of the local work force. Only 7% of students enter in TVE but for example in Germany, where over 40% of students enter in vocational and technical schools. The author argued that the experience and knowledge of instructors in TVE institutes, the factors affecting the quality of graduates produced. The study also revealed that the shortages of qualified instructors are the major problem of Malaysia. Most of the cases, instructors are taken directly from the local universities and colleges with special technical or vocational training. Most of the trainer has no industrial work experiences.

2.6 Prospect of Vocational Education

There are many scopes and prospects of VE in Bangladesh and these are summarized below:

Rahman and Raihan (2013) conducted a study to mention means to eradicate prime problems of TVET for ensuring worth human resources in Bangladesh. The aims of this study were to explain the essential roles of TVET for human resources development and to explore the inherent problems associated in TVET programs in Bangladesh. The study has addressed four roles of TVET for human resources development as follows: i) socio-economic development; ii) global competitiveness; iii) career mobility and; iv) flexibility in qualifications recognition. The study stated that to enhance productivity, stimulate competitiveness, and bring about economic development, skill developments are the key aspects for ensuring quality of TVET. TVET has been used by several developed countries as an instrument of development. But in Bangladesh,

significance of TVET has not really been embraced. The expected outcomes of this study were to consider the problems of TVET programs and to improve its quality. For eradicating the problems of TVET, the study suggested the following steps: i) Increase funding towards TVET in Bangladesh; ii) More attention or equal attention should be offered to the TVET sector as that offered to general academic education; iii) To emphasis on rural development in order to reduce income differences between urban and rural areas. More TVET institutions should be established in rural areas for providing technical and vocational skills to meet the needs of the community; iv) Steps to create self-employment and entrepreneurship; v) Government needs to create policy to encourage domestic products by shrinking importation; vi) Creating scope of more internship and industry linkage with TVET institutions.

Haxhiu (2015) explored that the economy of one country is dependent on the skills and the ability of its workers and employees respectively. Many of the countries of the European Union have considered the VE as an important step for economic and professional development of their countries. But due to some obstacles many of them did not provide competent and quality VE. This study is in context of Kosovo, a European country, revealed that 18% of the vocational schools do not offer learning based on the practice because of the lack of infrastructure/workshops and mechanisms in order to achieve the co-operation with enterprises that could accommodate a certain number of students to carry their practical training. The students that attended secondary vocational schools, of them, 40% do not undergo through any sort of practical training. The study stated that the steps of changing such as equipping the all workshops of all vocational schools according to European standards, providing training of all the teachers of high secondary vocational schools with European methods, ensuring continuous monitoring of the labor market at the national and European level, and use opportunities for

exchanging students with EU countries in order to gain European vocational experiences become economic development of the country and decrease the unemployment. The study also stated that history has shown that the most successful societies are those that accept and embrace faster the change.

Blinova, et al. (2015) conducted an empirical analysis of the factors affecting the reduction of youth unemployment in Russian regions. The study also assessed the role of education to reduce youth unemployment. The study showed that VE reduces the risks of youth unemployment in Russian regions.

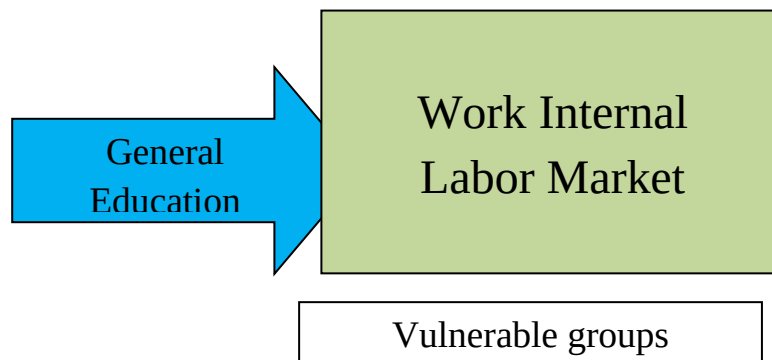
Education International (2016) conducted a study to understand how VE is positioned in many countries and the relationship between VE and the structures of the labor markets. The study used the capabilities framework as developed by Amartya Sen and Martha Nussbaum to underpin the notion of 'productive capabilities' for VE institutions that can support vocational teachers in contributing to local social, economic and cultural development. The study also discussed the role of VE in supporting the achievement of education 2030 to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all (UNESCO, 2015)". It argued that VE is intrinsic to achieving these goals, and to supporting equitable and sustainable economic and social development, contributing to the realization of human rights; and to developing the productive capacity of people, their societies and their economies. VE's role is all the more important for individuals, groups and societies who suffer the most economic and social disadvantage and are most vulnerable. This study cited four models of transition system from education to work between countries and within countries. It helps to make sense of the different relationships between qualifications and the labor markets. VE is positioned different in liberal market and co-ordinate market economies. In countries with strong links

between VE and the labor market, such as the Netherlands, the student transition system is dominated by the employment logic “there are strong institutional network which can support which can support transitions from education to work” (Raffe, 2008). These four models were proposed by Rauner (1999) based on two concepts: The number and the height of steps in the transition from general education to full engagement in work which are shaped by the nature of the labor market the graduate enters. In four models, people who are vulnerable to not being included in each transition, but the size of the vulnerable groups is related to the number and size of the models transitions.

Model 1: Direct transition

In this model, there is one transition from general education to full work. This is because the graduates of general education enter an internal labor market and training is carried out as a dimension of in-company organizational development (Rauner, 1999). A vulnerable group of pupils who do not complete schooling well, bear risk not being included in or even being marginalized from society. Japan is an example of direct transition (Rauner, 1999).

Figure 2.5: direct transition from education to full work

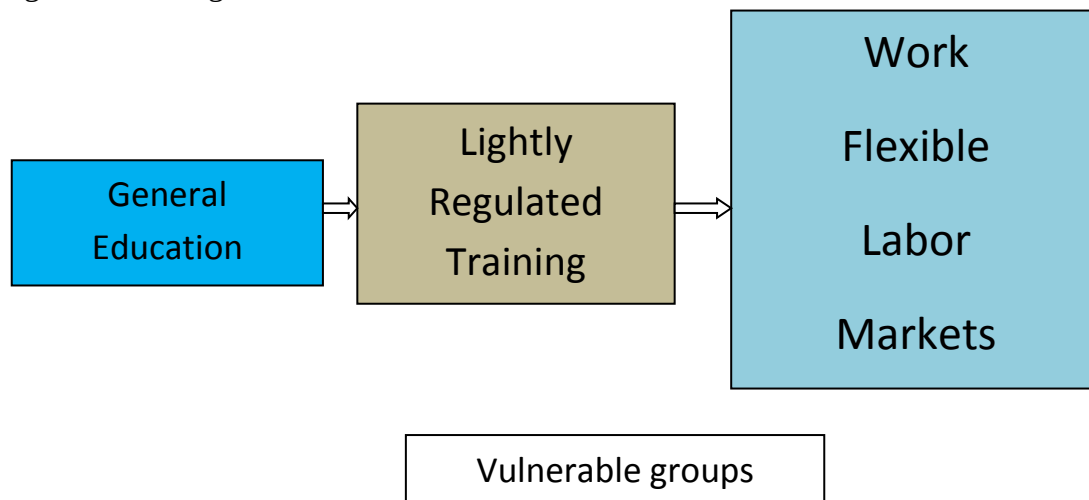


Source: Adopted from Rauner (1999) cited in EI (2016)

Model 2: Deregulated transition

In this model, first transition is from general education to highly regulated training and second transition is from training to full work in flexible labor markets. Both transitions have high threshold and subsequently high risk for vulnerable groups. The groups who do not complete schooling well are added the groups who do not start and complete training. Others additional groups remain at risk of not gaining employment. The USA and UK are example of deregulated transition (Rauner, 1999).

Figure 2.6: Deregulated transition



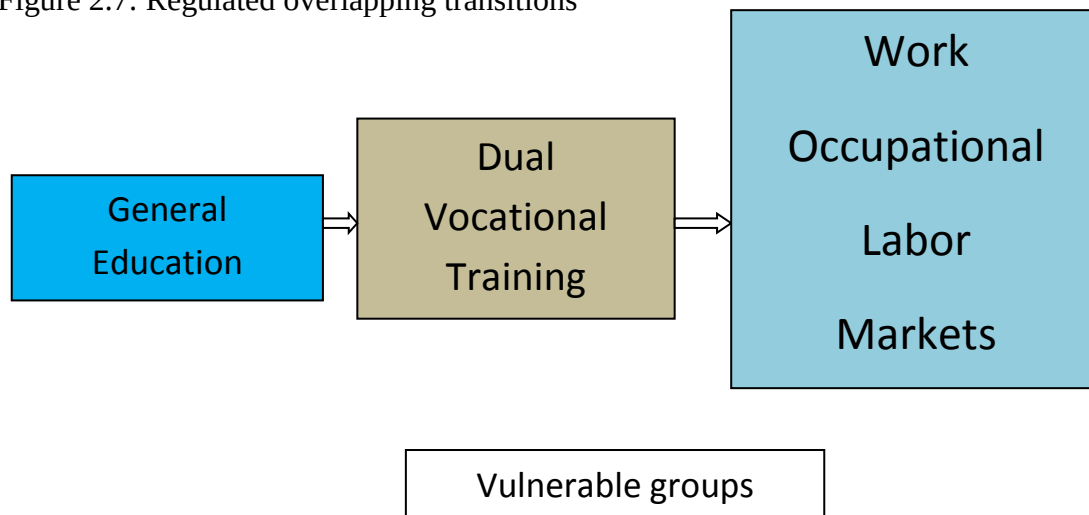
Source: Adopted from Rauner (1999) cited in EI (2016)

Model 3: Regulated overlapping transition

This model is consisted by two transitions. The intermediate stage of this model is regulated system of dual vocational training and work is organized here in occupational labor markets. While there are potentially the same groups vulnerable to not managing the two transitions from general education to vocational training and from training to employment, the dual vocational training system is coordinated by the social partners. So pupils and trainees do not bear so much

responsibility for managing these transitions themselves. Consequently, the transition thresholds are low and the risks for vulnerable groups are correspondingly lower. This model predominates in Germany, Holland, Denmark and Belgium (Rauner, 1999).

Figure 2.7: Regulated overlapping transitions

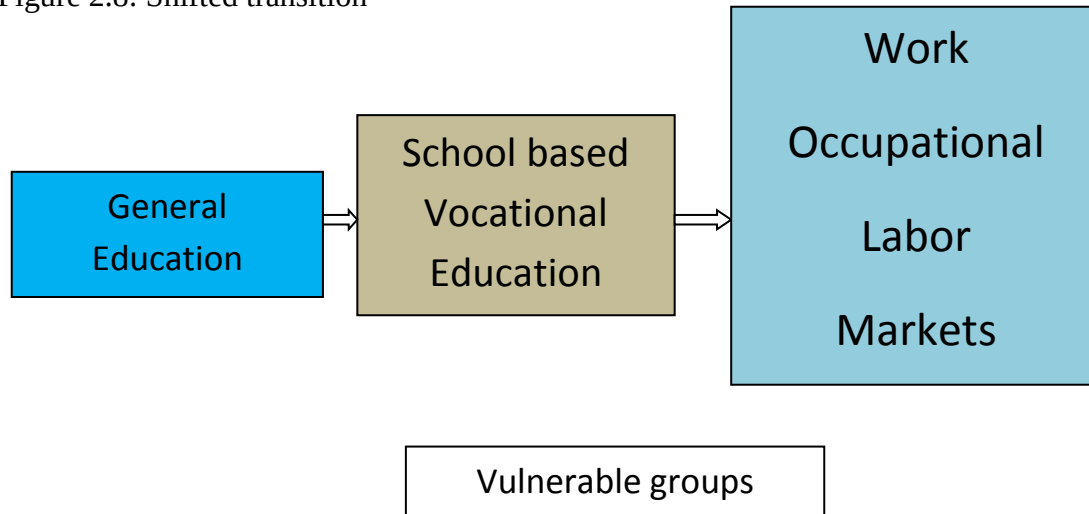


Source: Adopted from Rauner (1999) cited in EI (2016)

Model 4: Shifted transition

In this model, there is a transition from general education to school based vocational education with a low threshold and a second transition to work in an occupational labor market with a high threshold. Here the first transition from general education to school based vocational education has a low threshold and is relatively seamless the size of the groups made vulnerable by this transition does not increase markedly. However, there is a rather bigger threshold in the transition from school based vocational education to occupational labor markets and there is a marked increase in the size of the groups not able to gain employment and thus make this transition successfully. Rauner (1999) includes in this model ‘the large number of countries with a well-developed, school-based vocational training system’ such as France and Turkey (Rauner, 2007).

Figure 2.8: Shifted transition



Source: Adopted from Rauner (1999) cited in EI (2016)

Islam and Mia (2007) explored that rural population transformation is a contemporary issues in development paradigm in the developing countries like Bangladesh. This study described the role of education for rural population transformation in Bangladesh. It is described firstly the current status of the education system including VE in Bangladesh and then looks how the educations systems are failing to meet the needs of the developmental aspects of Bangladesh economy. Finally, the study will focused on how VE might help bring about transformation of the economy in a way that will help the nation to compete globally and how it might transform the economy from one that substantially rural and agricultural in based towards a knowledge-skill based economy. The study stated that it is a universally recognized reality that the quality of a country's human resource will determine its ability to compete in global market. Some Asian countries like Japan, Hong Kong and Singapore, despite limited land and natural resources, fully demonstrated that the rate of economic growth and social progress can be increased by the population gained skills, enterprises and being industriousness. Appropriate education policies along with supplementary and complementary policies also are necessary to ensure proper

utilization of educated, trained human resources. Human resources development through education and training for rural transformation is particularly important for a country like Bangladesh. The important premise is to positive social transformation is that poor men and women in Bangladesh are not idle, nor are they incapable. For the sake of survival they apply enormous energy and creativity, strength and dynamism on a daily basis to solve their problems. In the face of many calamities they demonstrate a high degree of resilience. Education, training and skill development will enhance their ability to work better with much higher return. The desired quality of human resources is not currently achieved through the existing arrangement of education and training. Providing access to education for a large number of people, particularly basic education, VET linked to productive utilization is a formidable challenge for Bangladesh. The study also stated that access to education for rural population, particularly basic education and VET stand for fighting poverty, promoting empowerment of women, sustaining the changes in fertility decline, promoting indigenous skills, changing patterns of employment in rural areas and growing of rural non-farm subsector. The study also cited that Toufoque and Toton (2002) suggested that over the years changes will taking place in different sectors and it is ‘hands’ and not ‘land’ which makes the most critical force to determine the future path of transformation.

The WB, HDU, SAR. (2007) stated that for creating more employment opportunities for the majority of Indians, they must have education and training that equips them for the labor-market. This study stated that government of India knows well VET system is one of the sources of skilled workforces. However, the government realizes that the system is not being able to appropriately respond to the needs of the labor market. A key issue then is what reforms/interventions are needed to improve effectiveness of the system. Answering that question, this study attempts to provide some options for doing so. On the one hand India faces

the future with its changing realities; on the other hand it must deal with the nature of its established traditions and structures. Changing realities are globalization, competitiveness and the knowledge economy and established realities are demographic pressures and financial constraints. In this context, the study discussed and opined that it is crucial to invest in quality secondary and tertiary education and in VET if India's economy wants to develop and remain competitive in the world markets.

UNESCO (2013) published a booklet on Education System Review Series for Asia-Pacific region for expanding TVET at the secondary education level to provide practice oriented guidance for those engaged in the review of education policy and systems. The booklet focused on expanding TVET at the secondary education level as a way of addressing skills mismatches and increasing employability of young people in Asia-Pacific. It is based on five country cases (China, Malaysia, Republic of Korea, Thailand and Uzbekistan) that present different approaches to vocationalization concepts and gives general policy recommendations that need to be considered before expanding TVET at secondary level. This booklet has already been put forward several suggestions regarding the ways of overcoming these difficulties. The suggestions are the following: i) Vocationalization linked to the reform of the overall education system; ii) Clarifying the goal of vocationalization policy iii) Enhanced role of local education authorities; iv) Enhanced career guidance and counseling services for students v) Active use of links between general schools and TVET institutions.

7thFYP (2015) emphasized the importance of vocational and technical education for its skill development nature. The 7thFYP stated that TVET produces educated qualified and skill manpower for the accelerated economic development of the country. The government of Bangladesh has selected key groups for improving skilled manpower through TVET with access

to education, training and lifelong learning which will be promoted for people with nationally identified specific needs such as youth, women, low-skilled people, people with disabilities, migrants and internationally displaced people, older workers, ethnic groups and the socially excluded; and for workers in small and medium sized enterprises, the informal economy in the rural sector and in self-employment. The 7thFYP also stated about the prospects of VTE that “The role of VTE programs for increasing the skilled labor force is vital. The VTE programs such as TVET and apprenticeships have the potential to profoundly impact unskilled informal workers as well as self-employed people. However, modest progress was achieved during the SFYP. The structure of the TVET system can be modified to allow greater access. A wider clientele including the poor can be served to the extent that skill development activities adopt more non-formal, flexible and variable-duration approaches with eligibility not strictly tied to formal education. The mismatch of jobs and skills, highlighted by the narrowing wage gap between skilled and unskilled workers, is also an issue. This indicates that the training workers go through is not valued highly in the market. Quality and content issues in training, along with limited access and shortage of skilled labor are major drawbacks in this subsector. In the 7thFYP, the Government will continue the major reformation Program by improving the capacity of the system among other methods.”

2.7 Summary of the Literature Review

This chapter has focused on the review of literature on problems and prospects of VE in context of Bangladesh specially secondary level VE named SSC (Voc) in order to enable the researcher and the readers to gain a better theoretical understanding of the study. The literature reviewed includes, conceptualization of VE, historical development of VE, and how it functions in skill

developments context. It also reviewed very sincerely present state of VE in Bangladesh and it suffers what types of problems and challenges, and also bearing prospects to develop skill of manpower. There are lot of scholarly articles that were reviewed to find out the variables and phenomena that has direct relationship to problematic and prospective state of vocational education. This review has been a breeze through which the researcher has established what other researchers contend about factors related to the problems and prospects of VE.

This literature review assisted the researcher to develop a focus in attempting to answer the research questions that are the focus of the study. The following table (Table. 01) represents the most important scholarly articles which are used in the study to respond to the research questions. The table below reflects the research questions, the appropriate subheading(s) responding to each question, key references, and the predominant constructs and emerging idea regarding present state, problems and prospects of VE in Bangladesh.

Table 2.1: Summary of the research questions, subheadings responding to each question, key references, predominant construct and emerging ideas from the literature review

Research questions	Subheading(s) responding to each research question	Key references	Predominant constructs and emerging ideas about VE
Main question: What are the factors related to the challenges and prospects of VE and what are their effects on the society to increase enrolment in VE and to develop the country by creating skilled manpower?	Variables and phenomena related to VE (SSC Voc)	World Bank (1990): Colin (1999): Alam (2007): BANBEIS (2007): Rafique (996): Foysol, et al (2012)	At present, Bangladesh is mainly offering general subjects to study in secondary level but to achieve development; it must be offered variety courses of disciplines such as technical, vocational, professional, and agricultural and so on: There are large number of drop-out students try to join the labor force without any requisite training or skills, because general school curriculum does not have a TVE component: TVE programs of Bangladesh only offer old programs

			and topics: Many attempts have been made for the renewal of education policy, but the desired development of VE has not yet to be happened.
Subsidiary question 1: What is the present state of VE in Bangladesh?	Function and present state of VE	Ahmed (2010): Tanvi, et al (2013): ILO & EU (2012)	Bangladesh Government could assume to develop TVE in the present context is to expand the TVE at the secondary level in order to increase the supply of skilled manpower with technical and vocational skill as per the requirement of the job market.
Subsidiary question 2: What are the factors related to the challenges and prospects of VE?	Challenges and prospects of VE	Tanvi, et al (2013): Siddika (2010): BIDS (2014): Sultana & Fatima (2017): Dasmani (2011): Singh, et al (2015): WB (1991)	The quality of TVE students is seemed to be poor and cannot provide sufficient significant knowledge for jobs. TVE students cannot realize their future opportunities. They suffer anxiety for becoming a laborer. In TVET system, learning and teaching method are old fashioned and inadequate for knowledge based skills, it is needed specific approach to deal with the competency-based curriculum development. There are some problems in the secondary level VE are curriculum of VET is not updated, people do not have proper awareness about VET, social acceptance of VET is low, shortage of skilled instructor, cost of VET is comparatively higher than general education and policy is not friendly with VET education. For facing challenges, all stakeholders should contribute in providing adequate training materials, large class sized should be discouraged, ensure the practical lessons to the all institutes, introduce industrial attachment programs for both staff and students and encourage the students to enter into self-employment at the end of their course.

Subsidiary question 3: Why the enrolment of VE (SSC Voc) is lower in Bangladesh?	Variables related to low enrolment	World Bank (2007): BANBEIS (2011): BIDS (2014): Sultana & Fatima (2017): Numan & Islam (2013):	Over the period of 2003 to 2009, the number of students in VET (SSC level) increased, but the outcome is not attractive at all. Gender discrimination is a remarkable barrier of TVET in Bangladesh.
Subsidiary question 4: What is the role of VE in Bangladesh?	Variables related prospects of VE	Rahman & Raihan (2013): Islam & Mia (2007): UNESCO (2013): 7 th FYP (2015)	The importance of vocational and technical education for its skill development nature. TVET produces educated qualified and skill manpower for the accelerated economic development of the country. A well VET system is one of the sources of skilled workforces. VET reduces the risks of youth unemployment.

2.8 Conceptual Framework

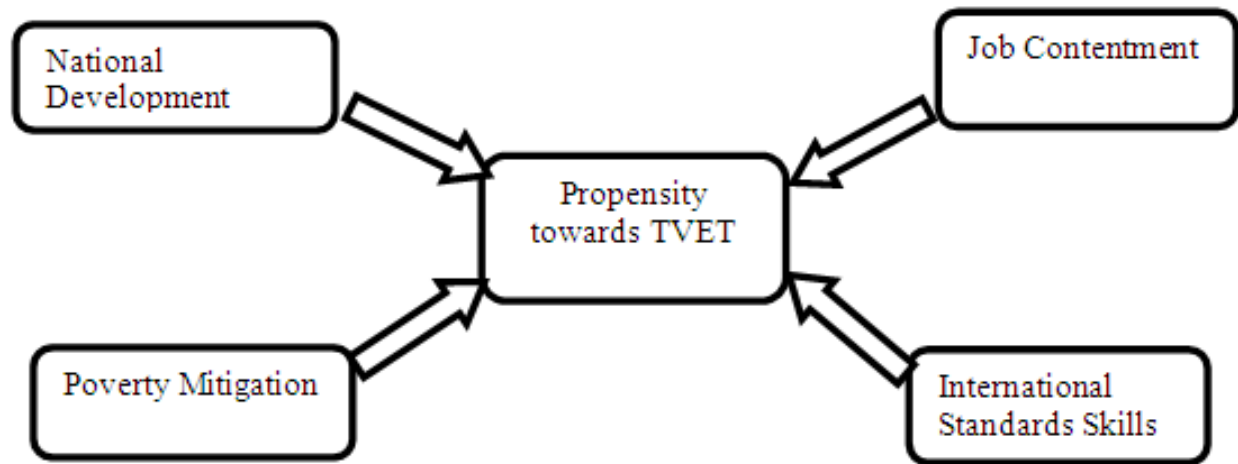
A conceptual framework is a consistent and comprehensive theoretical framework emerging from an inductive integration of previous literatures, theories and other pertinent information. It is usually the basis for reframing the research questions and formulating hypotheses, or making informal tentative prediction about the possible outcome of a study (Tashakkori & Teddlie, 2003). According to Shields and Hassan (2006), a conceptual framework is used in research to outline possible courses of action, or to present a preferred approach to an idea or thought. It can also act like a map to provide coherence for an empirical inquiry.

Here the researcher conducted an empirical study to investigate the problems and prospects of VE in Bangladesh. The researcher has tried to outline a conceptual frame work by studying a lot of literatures and conceptual context of various studies. The related literatures and ideas which have created a clear picture to form a conceptual framework of the study, for example, some of

them have stated in this section. There is a major role of TVET to enhance social and economic growth of a country. Most of the countries consider it and also has importance due to decreasing the skills gaps that exist in there and TVET is also vital for this reason that it is estimated 80% of the employments undertaken global require technical and vocational skills (UNESCO, 2005). The VET is considered as a key for poverty mitigation and reducing unemployment. For rapid growth of industrialization and innovation, there is a growing demand for vocationally skilled human resources in everywhere (McGrath, 2012). Stephanie (2012) argued that the shortage of skilled workforce is the reason behind the unemployment in South Africa. The TVET is well appropriate to aid youths and adults become independent. The quality assurance of TVET has a vital importance for faster change in the labor markets. In the Asia Pacific region many countries are changing their TVET better through implementing quality system (Shabiralyani, et al., 2015). The researcher stated two conceptual frameworks as example in the following:

Shabiralyani, et al. (2015) conducted a research to find out the socio-economic and demographic characteristics of the respondents and to investigate the rural community participation in TVET and its impacts upon the living standards along with its participation in rural poverty mitigation. The targeted population was the professionals, lecturers and senior class students (TVET) of rural areas in Pakistan. The conceptual framework was designed to understand the factors on which the propensity towards the TVET depends in the rural areas of Pakistan. According to framework (Fig 2.5) the main factors that influenced propensity toward TVET were identified as national development, poverty mitigation, job contentment and international standards skills.

Figure 2.9: Propensity towards TVET



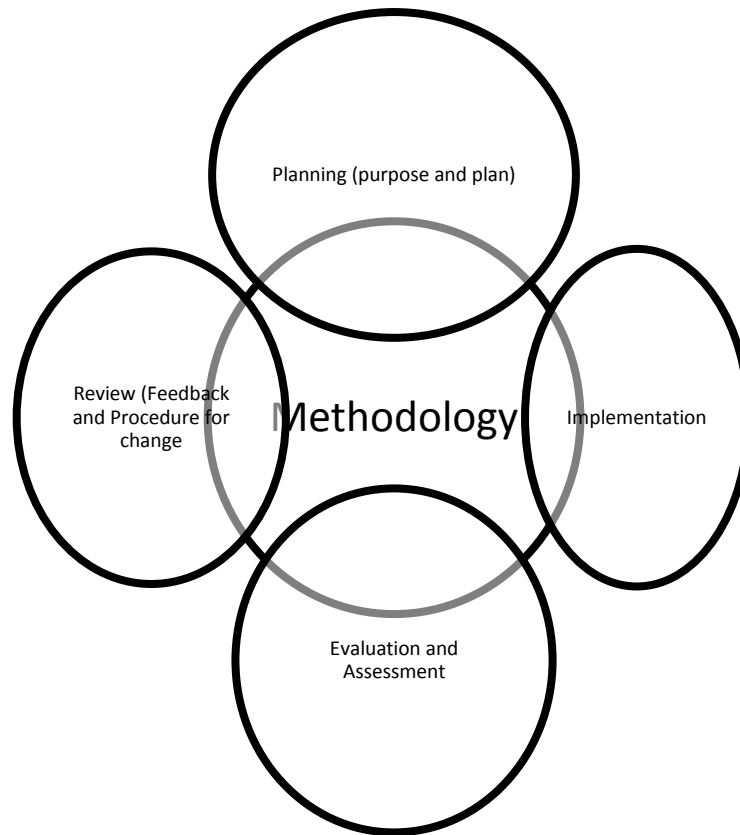
Source: Shabiralyani, et al. (2015)

For improving outcomes of VET a quality framework is needed. It is common desire that students are wanted to involve in work related contents to their course of study and employers wanted to appoint experienced graduates in relevant skills.

The VET quality assurance framework can be applied both the education system and provider levels and in the same time it can be used to assess the effectiveness of VET. A VET quality assurance framework gives particular emphasis on the improvement and evaluation of effectiveness of VET in terms of increasing skills and employability, improving the match between demand and supply and promoting better access to lifelong training in particular for disadvantaged people (EC, 2004). European commission (EC) develop a Common Quality Assurance Framework (CQAF) by it technical Working Group for its member countries. It works as a common reference framework to support the development and reform of the quality of VET at education systems and providers levels, while fully respecting the responsibility and autonomy of Member States to develop their own quality assurance (QA) systems.

The QA and development are a continuous process. It must be regularly reviewed against particular context and existing quality is assessed by the approaches through the practical initiatives undertaken in different settings while keeping its main feature of context independence (EC, 2004). The CQAF comprises a model (Fig 2.10) to facilitate planning, implementation, evaluation and review of systems at the appropriate levels in member states.

Figure 2.10: Common Quality Assurance Framework Model



Source: EC, 2004

2.9 Conceptual Framework for this Study

Developing countries are currently promoting VET as a way to build human capital and strengthen economic growth (Proshant, et. al., 2015). As a developing country Bangladesh

introduces high school level vocational education (SSC Voc) contributing to human capital development and diversifying labor need of industries. SSC (Voc) course is the entry course of formal VE and it launches government, semi-government and private sectors. Though it is very needful and contemporary design of education system but it suffers many kinds of problems in Bangladesh. In this study the researcher has tried to make a possible discussion to find the problems and prospects of VE. According to the research objectives the conceptual framework for this study are in three parts.

The first part details some major issues which impact strongly on the VE. These are comprises some major heads which represent the present situation and problematic status of VE. These are the following:

i) Factors which influences negative attitude towards VE

VE has been considered by the peoples and parents in Bangladesh as like as many countries as the carrier choice for the less academically qualified student with the image that VE is for only school dropout and weak student (Kumar, 2015). Vocational graduate do not get enough social respect because their narrow scope of future professional prospects and opportunities (Newaz, 2013). In South-Asia including Bangladesh, there exists somewhere social custom/tradition is that some specific jobs and skills must be specified for some castes or groups of people in the society. The transmission of given profession from generation to generation within family, group or caste strictly (Vollman, 2010). Usually the parents do not want to send their children to receive VE because its work based nature in order to their middle class mind sets and illogical biasness for white-color employment. The society does not care about honoring or celebrating blue-collar employees (Yeasmin, 2014).

Girls are restricted in VE for various reasons in South-Asian countries like low levels of literacy, discriminatory social customs and traditions, limited hours available in training and work, limited exposure and unfamiliarity with new technology (Chenoy, 2012). In addition, existence of strict kinship rules and in pursuance of purdah tradition women living in such rigid marital conditions are usually not showing much interest in any kind of job training or VE neither are they encouraged by their husband or her family (Vollman, 2010).

i) Factors which represents low quality of VE

Low quality of VE does not inspire the guardian and their children to admit in VE because of vocational graduates fail to show sufficient skills about their related trades after completion the courses. Unfortunately, study content and quality of the most vocational institutes are found obsolete and these have little interaction with industry (Yeasmin, 2014). Moreover, the VE in Bangladesh suffers from under-utilization of resources, lack of equipments, unavailability of qualified instructors, shortage of teacher training facilities and outdated and obsolete curriculum (WB, 2006).

ii) Lack of awareness

Newaz, et al. (2013) showed that though the number of students in VE (SSC Voc) increased but it is not sufficient at all, and identified some problems in secondary level VE like lack of proper awareness about VE. People do not know enough about the SSC (Voc) course.

iii) Other problems

Some people think that scope of VET profession is limited and entering VET education is actually narrowing down the opportunities of job market. Social

acceptance of VET is low because of two social dilemmas are causing this matter, i) only week students admit in VE and ii) scope of higher education in related trades is limited. In Bangladesh, students of village level cannot have easy access to TVE schools because most of the TVE schools are located far from rural areas (WB, 1991). Rafique (1996) stated that TVE programs of Bangladesh only offer old trades and topics.

The above issues are referred to in the conceptual framework (Fig 2.11) as the major challenges because these issues form the basis of the entire study; and prompted me to engage in this study which addressing the questions relating to the obstacles (problems) to the enrollment and expansion of the VE in Bangladesh. The above all problems lead the low enrollment in the VE.

The second part, consider the types of steps needed in VE for changing it as quality and demand oriented. The following steps are considered after reviewing the related literatures and after conducting a pilot study in the same study area in order to provide quality education and to increase enrolment in VE:

- i) Provide academic and infrastructure facilities;
- ii) Increasing awareness;
- iii) Reducing negative attitude by appreciation;
- iv) Creating enough scope to receive VE;
- v) Expanding VE by govt. and NGO;
- vi) Creating scope of higher education;
- vii) Creating employment in govt. and NGO sector;
- viii) Encouraging entrepreneurship;

- ix) Encouraging girls entrance; and
- x) Establishing VE institutions in root level

All steps are investigated and justified, and then recommended as fruitful means of overcoming the problematic status of VE in Bangladesh.

The third part indicates a direction how the VE plays an outstanding role to mitigate the 21st century challenges for a developing country like Bangladesh. This part of the conceptual framework (Fig 2.11) provides an overview of some prospects of VE for which it may stand as the development instrument. As suggested in the literatures, prospects of VE are in the form of some variables, namely:

i) Skill development

The WB (2006) stated that VET enriches an individual with human capital providing pertinent job training and skills which eventually facilitates a student with the competence to build up self-employment and thereby encourage entrepreneurship. These self-employment and entrepreneurship play a pivotal role in reducing unemployment in populous country like Bangladesh.

ii) Self-employment

Anusha (2012) expressed that VE is primarily non-academic in nature and offers practical training and skills needed to pursue an occupation straightway. It provides the students with courses directly aligned to land a job in a chosen profession or a skilled trade. The end result of VE is to enable an individual to attain self-employment.

iii) Reducing child labor, child marriage, and drop-out

Winrock International (2008) expressed that VE is an essential component of strategies to reduce and prevent child labor. Many children drop-out from school because they do not see the relevance of education to their lives. In many cases, parents do not want to send

their children to school, in lieu of that enter into the workplaces because of absence of proper learning (how learning to read, write and do sums can help put bread on the table) about the world of work. Relatively few studies have attempted to measure carefully the impact of child marriage on education. The decision by a girl (or her parents) to marry early is a liable function of the girl's education. For example, the girls with lower education prospects because they may be academically weak face smaller expectation in future earnings and thereby they have lower incentives to continue study as compared to girls who are academically stronger. These girls may be more willing to marry early or their parents may be more willing to have them marry early. Since the VET is the suitable education for this case to continue study, the VE may reduce child marriage and drop-out. Minh and Quentin (2012) have shown a strong association between higher age at marriage and higher education levels. An analysis of global data by the International Centre for Research on Women (ICRW) found that girls education is the most important factor associated with child marriage. Another study determined that in 29 countries women who married at the age of 18 or older had more education than those who married at a younger age. Additionally, the study includes many case studies which show that when girls stay in education for longer they are likely to get married at an older age.

iv) Women empowerment

Jennifer et al. (2015) have shown that education is not only a human right, but also a powerful tool for women empowerment and a strategic development investment. There is a clear multiplier effect to educating girls; women who are educated are healthier, participate more in the formal labor market, earn more income, have fewer children, and

provide better healthcare and education to their children compared to women with little or no education.

v) Demand oriented education

As a populous and developing country, in Bangladesh, VE is very much relevant and need based education. Nahid (2015) said “we have a large number of young people. We can use them well with providing VE. Then a student will become a worker and can be help to build the country. If we can make our population skilled, they will become our great resource”. Dike (2007) also stated that VTE and job training have been an integrated part of national development strategies in many societies because of the impact on human resources development, productivity and economic growth.

vi) Manpower export

Bangladesh exports abroad a large number of unskilled and semi-skilled manpower every year. The major portion of migrated peoples involved in odd and low paid jobs due to their lack of skills. Remittances from these unskilled migrant workers were not satisfactory according to the number of migrated people. Remittance inflows could have been greater if the migrant workers were skilled (ADB, 2015)

vii) Increasing dignity of labor

Vocation is a work based and training oriented job (Cornford, 2005). But education is the main driver of sustainable development. VTE is concerned with the acquisition of knowledge and skills for the world of work to increase opportunities for productive work, sustainable livelihoods, personal empowerment and dignity, and socio-economic development in knowledge economies and rapidly changing work environments (Mcclean and Wilson, 2009). Akindeinde (2010) conducted a study in Nigeria and argued

that in order to achieve the African continent's developmental aspirations, young people need to have access to an education that will enable them to enhance their standard of living, become aware of health issues, achieve their desired family sizes, and gain competitive skill that will be in high demand in labor market. Side by side it will enhance the dignity of labor.

viii) Changing social values

Yasmeen (2014) stated that The VE is basically work based and its employment nature is widely mid-level rank and income oriented. For this reason, the guardians do not send their children to VE institutions in spite of weak quality merits of them. The negligence about VE is the major fault of the government as alike as the people. The people of Bangladesh have middle class mindsets and an illogical biasness for white-color employment. The government has fuelled such social prejudice by failing to connect VE with the world of work.

These above mentioned issues are referred to as prospectus factors of VE and these all can be presented in the following framework:

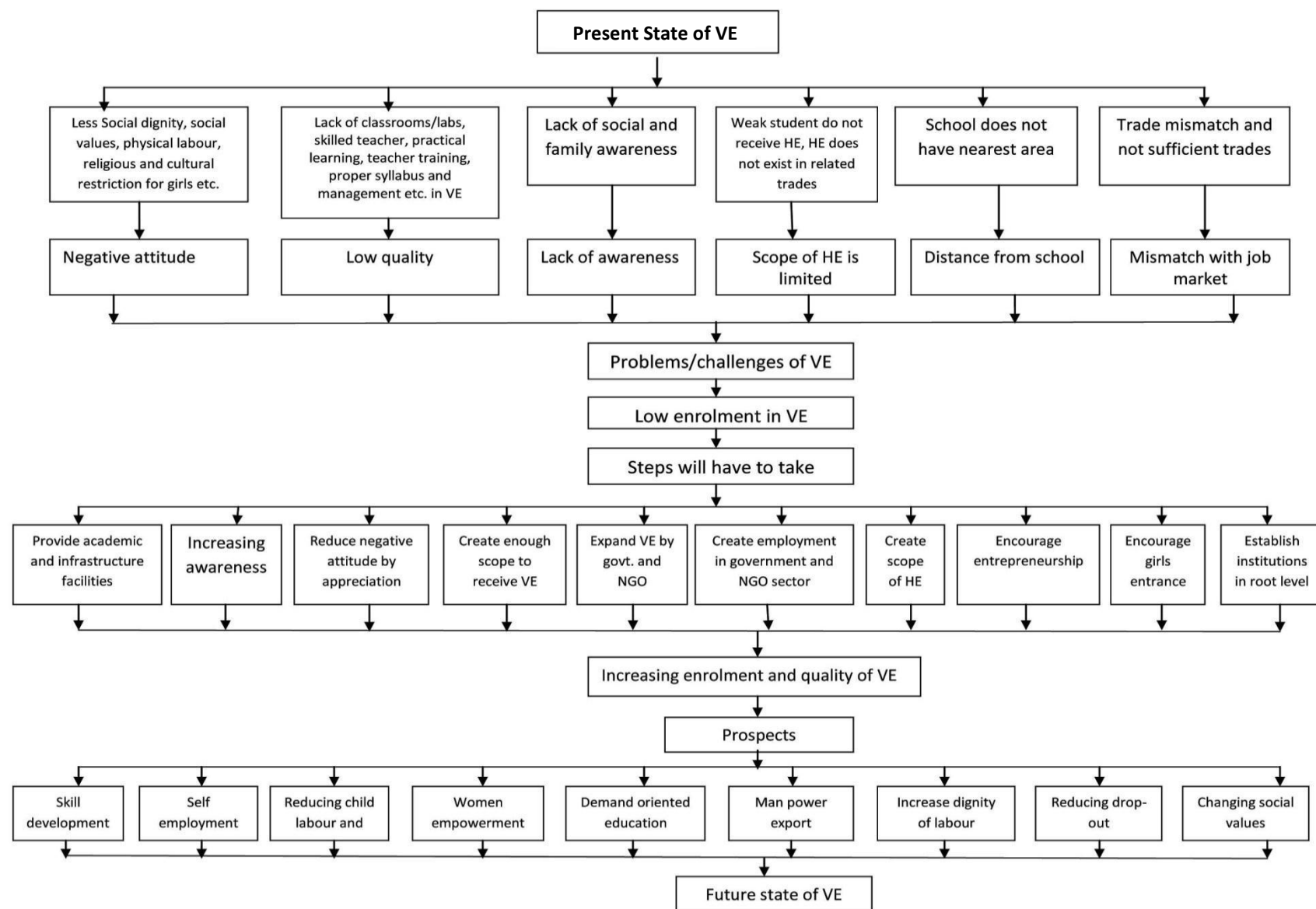


Figure 2.11: Conceptual framework of this study

CHAPTER THREE

Data and Methodology

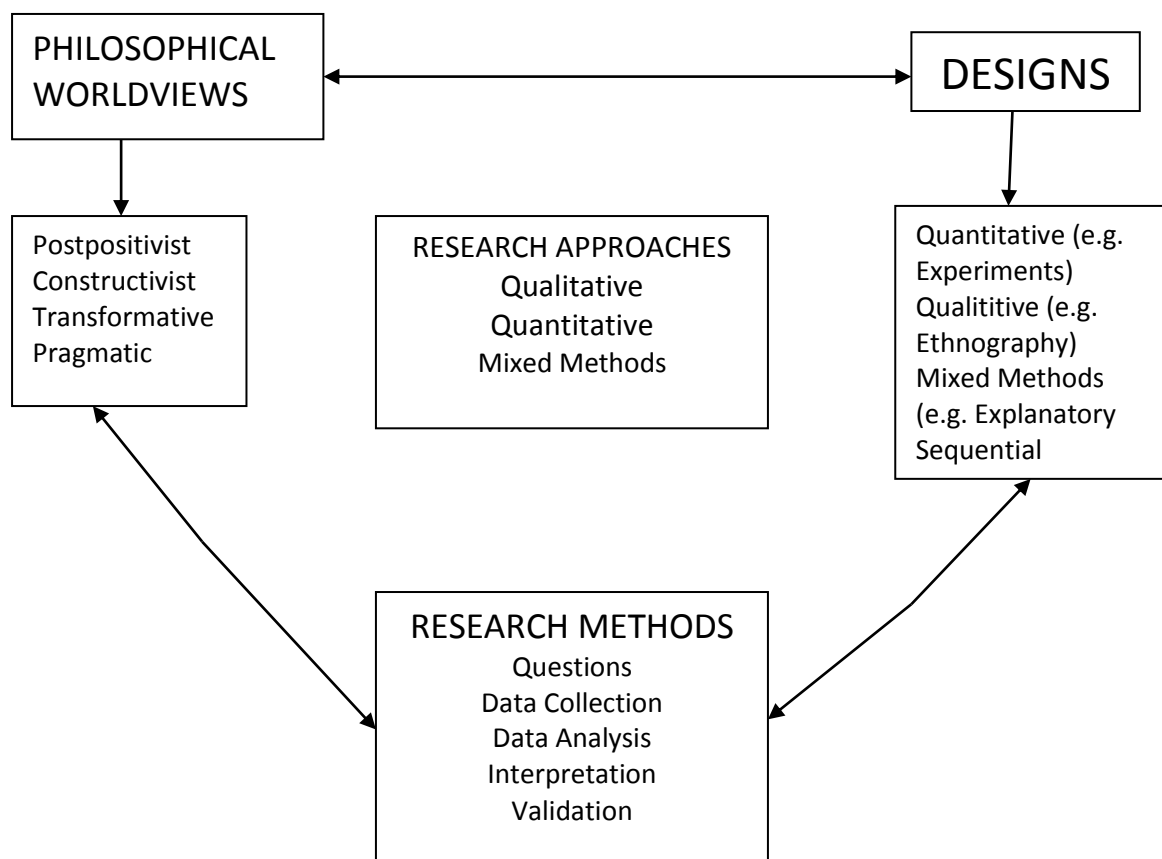
3. Introduction

The variables related to problems and prospects of VE play important roles to improve skilled manpower as well as labor market. An empirical study to investigate problems and prospects of VE is a dynamic research approach which is firmly rooted in both qualitative and quantitative etymology. The Quantitative data consists of structured and close-ended information such as that found to measure attitudes, behaviors, and performance instruments. Questionnaire or checklist used to collect data and analysis of this type of data consists of statistically analyzing scores to get answer the research questions or to test hypotheses. The qualitative data consists of open-ended information that gathers through interviews, focus group discussions and observations. The analysis of the qualitative data follows the path of aggregating it into categories of information and presenting the multiplicity of thoughts or ideas gathered during data collection. By mixing both quantitative and qualitative data and analysis, it has been tried to gains actual features of research problems and to understand the weaknesses inherent to using each approach by itself. In line with this thinking, this study is based on a mixed methods research approach which is explained in detail in the following sections.

3.1 Approach of the Study

Research approaches are plans and the procedures for research that span the steps from broad assumptions to detailed methods of data collection, analysis, and interpretation (Creswell, 2014). The research approach is also selected on the nature of the research problem or issue being addressed, the researchers' personal experiences, and the audiences for the study. Creswell (2014) has chosen a framework for research approach as the interconnection of Philosophical Worldviews, Design and Research Methods.

Figure 3.1: A framework for research



Source: Creswell, 2014

For conducting this study, the research methodology employed here is a combination of quantitative and qualitative research methods popularly refer to as mixed method research. Kemper, Springfield and Teddlie (2003) define mixed method design as a method that includes both qualitative and quantitative data collection and analysis in parallel form. Bazely (2003) defines this method as the use of mixed data (Numerical and Text) and alternative tools (Statistics and analysis). For the purpose of this study, both quantitative and qualitative research designs and methodology were appropriate. The qualitative design was appropriate as far as it enabled the researcher to interact with the respondents by the semi-structured open ended interview schedule with regard to their perceptions of various aspects of VE and how these perceptions help the promotion of VE and since the building bricks of quantitative research are variables, and the focus of this study is to investigate the variables related to challenges, prospects and present situation of VE, a questionnaire, which is quantitative research tool, was administered to students, teachers, head teachers/principals, guardians and social leaders to solicit information which might not have been obtained through the interviews, observations and focus group discussions. The choice of particular mixed methods design is based on several factors that relate to the intent of the procedures as well as practical considerations. The researcher should begin with the procedural reasons for choosing a particular mixed methods strategy. To choose a mixed methods strategy beyond considering the outcome anticipated, the researcher needs to consider whether mixed methods integration of the two databases will be merged, connected or embedded (Creswell, 2014). For more in-depth understanding of quantitative results the researcher gathered qualitative data by conducting interviews of some respondents including all types of respondents in context of major findings of quantitative data.

For this reason, the study adopted the explanatory sequential mixed methods design as methodology.

Table 3.1: Choosing a mixed methods project, Expected outcomes, type of Design

Reasons for choosing Mixed Methods	Expected outcomes	Recommended Mixed Methods Design
Comparing different perspectives drawn from quantitative and qualitative data	Merging the two databases to show how the data convergent or divergent	Convergent parallel mixed method design
Explaining quantitative results with qualitative data	A more in-depth understanding of the quantitative results	Explanatory sequential mixed methods design
Developing better measurement instruments	A test of better measures for a sample of a population	Exploratory sequential mixed methods design
Understanding experimental results by incorporating perspectives of individuals	An understanding of participant views within the context of an experimental intervention	Embedded mixed methods design
Developing an understanding of needed changes for a marginalized group	A call for action	Transformative mixed methods design
Understanding the need for an impact of an intervention program	A formative and summative evaluation	Multiphase mixed methods design

Source: Creswell, 2014.

3.2 Research Design and Methodology

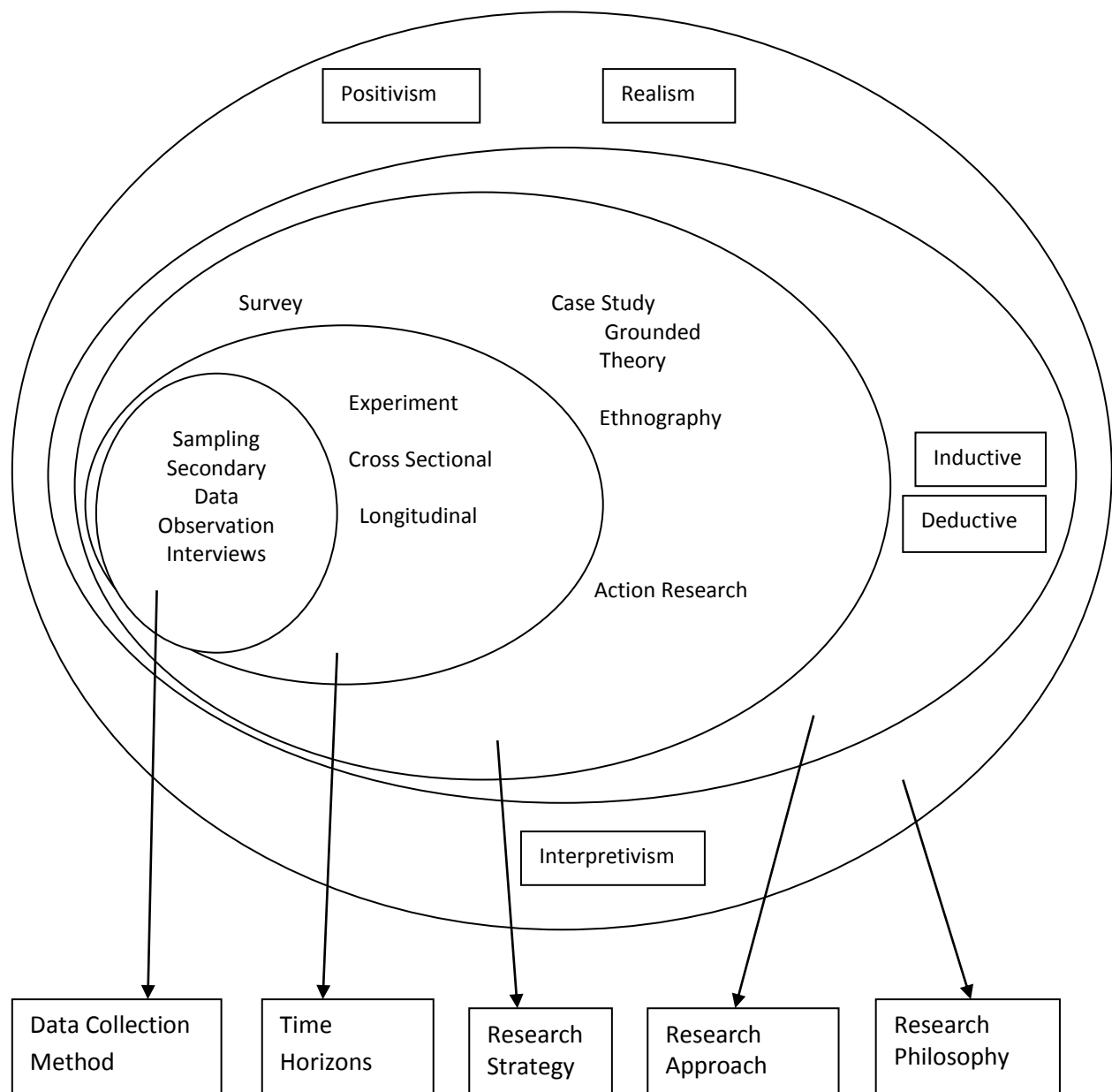
The function of a research design is to ensure the evidence obtained enables us to answer the initial question as unambiguously as possible. Leedy (1997) defines research design as a plan for a study, providing the overall framework for collecting data. MacMillan and Schumacher (2001) defined it as a plan for selecting subjects, research sites, and data collection procedures to answer the research question(s). They further indicated that the goal of a sound research design is to provide results that would be credible. A good research design refers to the overall strategy to integrate the different components of the study in a coherent and logical way. It effectively addresses the research problem which constitutes the blueprint for the collection, measurement, and analysis of data.

The methods section of this study provides the information by which the study's validity is judged. This section answers the two main questions: i) how the data were collected or generated and ii) how the data were analyzed. It involves analysis of the assumptions, principles and procedures in a particular approach to inquiry. The methodology explicates and defines the kinds of problems that are worth investing; what constitute a researchable problem; testable hypotheses; how to frame a problem in such a way that it can be investigated using particular designs and procedures; and how to select and develop appropriate means of collecting data (Creswell & Tashakkori, 2007 and Teddlie & Tashakkori, 2007).

After identifying the research problem or an area of interest, the researcher has to identify appropriate method(s) to approach the problem. In order to give direction to this study, it was adopted a research process “onion” of Sanunders et al (2003) (cited in Mafuwane, 2011). The

onion process illustrates the range of choices, paradigms, strategies and steps followed by the researchers during the study.

Figure 3.2: The research process onion (Saunders et al, 2003)



Source: Mafuwane (2011).

This research process onion provides a summary of the issues which are very important for a study because of issues that need to be taken into consideration and reviewed before undertaking

any research. The different layers of the onion consider as a basis to identify the following: the philosophical intention of the researcher; the research approach adopted; appropriate strategy of conducting research; the research time lines; and the data collection techniques adopted by the researcher.

The research methodology employed in this study is a combination of quantitative and qualitative research methods popularly refer to as mixed methods research. It is a type of research in which the researcher utilizes the qualitative research paradigm for one phase of a study and the quantitative paradigm for another phase of the study (Mafuwane, 2011).

For the purpose of this study, both quantitative and qualitative research designs and methodology were appropriate. The qualitative design was appropriate as far as it enabled the researcher to interact by the semi-structured interview schedule with respondents with regard to their perceptions of various aspects of VE and how this perception helps the promotion of VE. Since the building bricks of quantitative research are variables, and the focus of this study is to investigate the variables related to challenges, prospects and present situation of VE, a questionnaire, which is quantitative research tool, was administered to students, Trade instructors, Head teacher/Principals, guardians and social leaders to solicit information.

3.3 Nature of the Study

This study is both qualitative and quantitative in nature and thus it is adopted a mixed method research design. A qualitative method is used to explore the objectives and some quantitative procedures were followed to support the qualitative data. It is also descriptive in its literature reviewing strategies.

3.4 Mixed Methods

The mixed method design includes both qualitative and quantitative data collection and analysis in parallel form (Kemper, Springfield & Teddlie, 2003). This study is designed to conduct mixed research design because using for its two phases data collection and analysis. One phase is quantitative research paradigm for its various socio-economic variables and factors and another phase is qualitative research paradigm for its in depth analysis of central phenomena. The objective of quantitative research is to collect the facts about human behavior that will lead to verify and extend theories. On the other hand, objectives of qualitative research are to promote better self-understanding and increasing insight into the human condition. It also emphasizes the improved understanding of human behavior and experiences. There are several viewpoints as to why qualitative and quantitative research methods can be combined. Sale, Lohfeld and Brazil (2002) comment as follows with regard to the combination of the methods:

“Both approaches can be combined because they share the goal of understanding the world in which we live. They share a unified logic, and the same rules of inference apply to both. A combination of both approaches provides a variety of perspectives from which a particular phenomenon can be studied and they share a common commitment to understanding and improving the human condition, a common goal of disseminating knowledge for practical use. Both approaches provide for cross-validation or triangulation – combining two or more theories or sources of data to study the same phenomena in order to gain a more complete understanding of that phenomenon (interdependence of research methods) and they also provide for the achievement of complementary results by using the strengths of one method to enhance the other (independence of research methods).” (cited in Mafuwane, 2011).

The following figure shows the steps in the process of conducting a mixed methods study.

The seven steps indicated in the above figure were observed from the planning stage of this research study through to the data analysis stage. The following paragraph discussed in detail the research methods that were used in this study.

In this study, structured and semi-structured questionnaire were used for collecting data in order to find out the vocational institutional conditions and related matters of VE including all stakeholders like students, teachers, guardians and social leaders intends and attitudes towards VE. It is also investigated the problems and prospect factors of VE. Different questionnaire were used for different respondents according to their roles and participation towards VE (appendix A, B, C, D, E, F). Students delivered their opinions about intend towards VE, institutional conditions of VE, and various problems or challenges and prospects of VE. The Head teachers/Principals and Trade instructors exchanged their views about management and teaching-learning situations of VE. Guardians and social leaders delivered their opinions about same context. SPSS 16.0 version was used for analyzing the quantitative mode which assessing the associations and effects among the various dependent and independent variables. For showing relation among the variables, contingency tables were used (χ^2 table) and binary logistic regression models were performed for assessing the effects of independent variables on dependent variables.

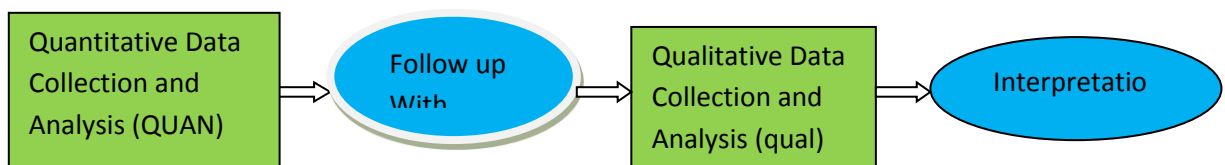
In this study, independent variables were considered as age, gender, education class, family income, residence, experience, training etc. Dependent variables were considered problems and prospect factors as intention towards VE, attitudes, quality of VE, social awareness about VE, acceptance of VE into the society, suitability of vocational courses, and scope of higher education, expenditure of VE, women entrance in VE, and some prospects factors of VE.

On the basis of quantitative findings, the researcher developed qualitative part of this study by analyzing on interview data which are collected from the most important few number of students, Trade instructors, Head teachers/Principals, guardians & social leaders who were selected purposively. Social leaders were represented all kinds of people like teacher, doctor, engineer, lawyer, government officials, educationist, administrators, specialist in VTE, and so on. The interview schedule was prepared using information drawn from the literature review and findings from the quantitative section. The interview was conducted with semi-structured interview schedule which is designed to explore the extent, nature and quality of the participant thoughts and feelings about a range of personal, interpersonal and attitudinal. The interview process was guided by structured to open-ended questions that lead into topical areas that are firstly the participants were requested to prioritize the positive or negative approach and provide reasons why they choose positive or negative comments. The goal of interview is to explore the ideas and feelings that respondents assign to their attitude towards VE.

Out of many qualitative approaches, the method of this study involved a content analysis. The interview analysis consisted of detailed readings of participant attitudes, perceptions and reason for these. In the content analysis, interview data were partitioned into content domains for the purpose of the study and respondents. Two trained readers independently read for common themes in participants descriptions of their perceptions about problems and prospects of VE. Themes were identified and generalized within and across the participants. Only those themes that are identified by all two readers independently were considered common themes in the interviews. According to the procedure, the method of this study is a mixed method research. Here, both qualitative and quantitative data were used for satisfying the objectives of the study and the researcher first conducts quantitative research, analyzes the results, and then builds on

the results to explain them in more detail with qualitative research. It is considered explanatory because the initial quantitative data results are explained further with qualitative data. It is also considered sequential because the initial quantitative phase is followed by the qualitative phase. Since, this research project started with strong quantitative orientation, but it presents challenges of identifying the quantitative results to further explore and unequal sample size for each phase of the study. For this reason, the study considered as Explanatory Sequential Mix Method study which is represent as follows:

Figure 3.4: Explanatory Sequential Mixed Methods



Source: Creswell, 2014

From the above discussions, the researcher was designed a model and conducted this study according to that model which is presented in below. The study also identified and presented in the below the variables and phenomena related to the problems and prospects of VE that associated with the background characteristics of the respondents for significant prediction.

Figure 3.5: research model followed by this study

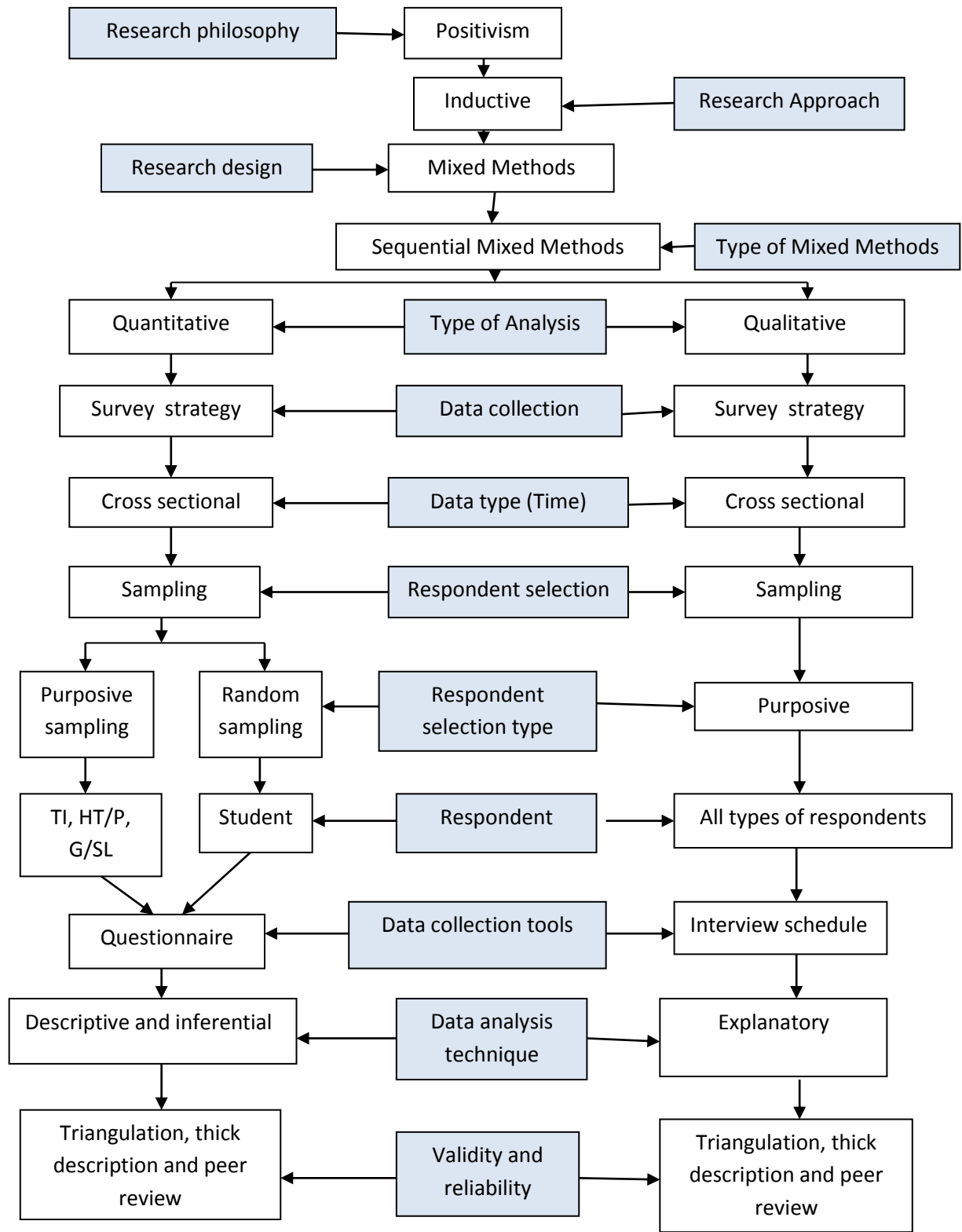


Table 3.2: Variables and central phenomena considered in this study

Independent Variable		Dependent Variable/Phenomena	
Respondent	Considered variable	Problem related	Variable Social dignity, Physical labor, social awareness, proper learning status, expense of VE, insufficient institutions, scope of higher education, shortage of skilled instructor, lack of sufficient classrooms, lack of labs and instruments, lack of practical learning, lack of sincerity and integrity of teacher, lack of students intention to learn, lack of awareness and co-operation of guardians, Lack of monitoring of head of institution, low entrance of girls, low salary of teachers,
Students	Age, gender, father's and mother's education, occupation, monthly family income, district and types of institutions		Central phenomena Attitude towards VE, low enrolment situation, teaching learning situation, quality of VE, weak students admit in VE, mismatch with job markets, negative social values, social custom, myths, idioms etc.
Trade instructors	Age, gender, educational qualification, teaching experiences, types of institutions, district	Prospect related	Variable Entrepreneurship, Child labor, Child marriage, scope of foreign jobs, dignity of vocational profession, women empowerment,
Head teachers/ Principals	Age, gender, education, training, teaching experiences, district and institution types		Central Phenomena VE is suitable for weak meritorious and drop-out students, create scope of self-employment, alternative means of employability of general educated people, increasing income level of worker by achieving skill, most appropriate way of creating skilled manpower, means of creating vulnerable and street boy as a skilled labor force, adding more scope in existing field
Guardians/ Social leaders	Age and gender		

3.5 Population of the Study

All government and non-government secondary schools and other institutions' (where SSC Voc courses are taught) students (class IX and X) and Trade instructors, Head teachers/Principals, guardians & social leaders of Rajshahi division were the population for this study.

3.6 Sources of Data

The required data of the study were collected from primary and secondary sources. Primary data were collected from three districts (Rajshahi, Bogra, and Natore) under Rajshahi division through questionnaires survey and interviews. The secondary data were collected by means of document analysis.

Group of Respondents

Group names	Selected respondents
Students	Students of SSC (Voc) courses (Class IX and X) of selected secondary schools, TTCs, MTTC, NGO directed school (UCEP)
Trade instructors	Trade instructors of selected secondary schools, TTCs, MTTC, Vocational Textile Institute and NGO directed school (UCEP)
Head teachers/Principals	Head teachers/Principals of selected secondary schools, TTCs, MTTC, Vocational Textile Institute and NGO directed school (UCEP)
Guardians and social leaders	Related guardians and social leaders of study area. Social leaders represent all kinds of people like teacher, doctor, engineer, lawyer, government officials, educationist, administrators, specialist in VTE, and so on

3.7 Study Area

The socio-economic conditions of Bangladesh are more or less same all over the country. Educational institutions and literacy rate are also same in nature. Bangladesh divided some administrative divisions and it is nine in number. Administrative divisions consist of some administrative districts. All districts have several numbers of secondary schools and other institutions where SSC (Voc) course are running. The challenges of enrolment, teaching, learning and other social barriers are approximately same and also the prospects have the same in nature. Rajshahi division is considered as the study area which has eight administrative districts. It has 535 secondary level vocational institutions (Rajshahi-116, Natore-76, Bogra-78, Sirajgonj-69, Naogaon-66, Pabna-64, Joypurhat-43, and Chapai Nawabgonj-23) conducting SSC (Voc) course. Rajshahi, Natore and Bogra districts were selected using random sampling technique as the study area to collect data.

3.8 Sampling Procedure

The selected districts have 270 secondary level academic institutions where SSC (Voc) course are available. From 270 institutions, 24 were selected from three districts using the following sampling technique. Data and necessary information of 500 students, 80 Trade instructors, 20 Head teachers/Principals, 51 guardians and 91 social leaders were collected from 24 selected institutions and related areas. The respondents Head teachers /Principals, Trade instructors, and guardians & social leaders were selected purposively. For qualitative analysis, data were collected through interview by semi-structured interview schedule from total 40 respondents including students, Head teachers/Principals, Trade instructors, guardians & Social leaders, curriculum specialist, educationist and administrators whose were selected purposively.

In case of sampling, it has been used **multistage cluster sampling** technique.

1st stage: Three districts were selected from Rajshahi division.

2nd stage: Nine thanas were selected from three districts (taking at least two thanas from each district).

3rd stage: Minimum 2 institutions were selected from each thanas for the ensuring purposive sampling for gender and sector wise allocation of respondent.

4th stage: Students were selected by means of random sampling technique (RSS) from each school of class IX and X and the total sample size is determined by using the following formula:

$$n = \frac{Z^2 p(1-p)}{\epsilon^2} = \frac{Z^2 pq}{\epsilon^2}, \quad \text{assuming that } p = 0.5 \text{ and } q = 0.5$$

Where:

n = Sample size

Z = Tabulated value = 1.96 (For large sample at 5% level of significance)

p = Proportion of success,

$q = 1 - p$ = proportion of failure,

ϵ = Margin of error = 0.05

Based on this formula it is supposed to select 384 student respondents from the three districts. But for the betterment of research it has been taken 500 respondents. Sampling frame of the respondents (students, Trade instructors, and Head teachers/Principals) is presented in the following figure:

SAMPLING FRAME

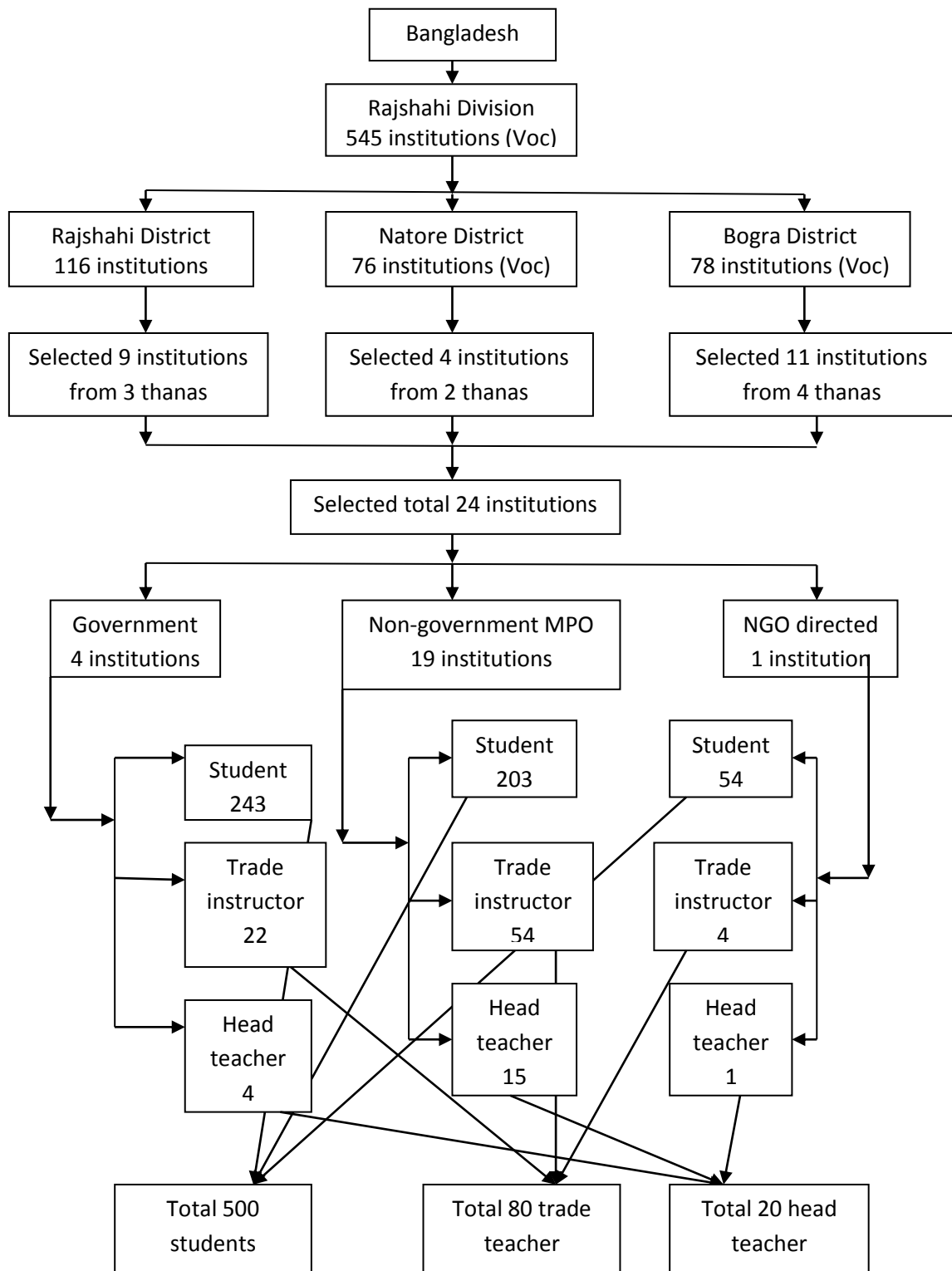


Figure 3.6: Sampling frame of students, Trade Instructors, and Head Teachers/Principals

3.9 Sample Size

Table 3.3: List of the selected Schools and sample size

District	Name of Schools	Number of the respondents			
		Students	TIs	HT/Ps	G&SL
Rajshahi	1. School A	16	6	1	62
	2. School B	11	4	1	
	3. School C	03	6		
	4. School D	07		1	
	5. School E	06	1	1	
	6. School F	66	4	1	
	7. School G	54	4	1	
	8. School H	16	4	1	
	9. School I	70	6	1	
	Sub total	249	35	8	62
Bogra	10. School J	08	1	1	49
	11. School K	08	4	1	
	12. School L	10	4		
	13. School M	07	1	1	
	14. School N	07	3	1	
	15. School O	06	1	1	
	16. School P	05	1	1	
	17. School Q	16	4		
	18. School R	16	1	1	
	19. TTC, S	50		1	
	20. Textile Vocational Institute, T	07	4		
	Sub total	140	24	8	49
Natore	21. School U	26	5	1	31
	22. School V	13	5	1	
	23. School W	22	4	1	
	24. School X	50	7	1	
	Sub total	111	21	4	31
Grand total		500	80	20	142

Note: TI: Trade instructor, HT/P: Head teacher/Principal, G&SL: Guardians & Social leader

Table 3.4: Gender-wise and Sector-wise distributions of the respondents

Factors		Students	Trade instructors	Head teachers /Principals	Guardians and social leaders
Gender	Male	263	66	19	98
	Female	237	14	1	44
	Total	500	80	20	142
Employment Sector	Government	236	22	4	
	Non-government	264	58	16	
	Total	500	80	20	

3.10 Data Collection

The structured questionnaires were used to collect data considering the objectives of this study and for qualitative data semi-structured interview schedule were used. For quantitative data, there were four types questionnaire for the four types of respondents viz; students, Trade instructors, Head teachers/Principals and ‘guardians and social leaders’ and for qualitative data only one interview schedule were used for all types of respondents. .

3.10.1 Questionnaire for Students

A questionnaire for students was prepared to collect data. It contains two parts, i) personal information i.e. name, age, gender, institution’s name, class and trade, roll, father’s occupation, mother’s occupation, father’s and mother’s education, family income, and ii) VE related questions. There were 70 questions in the questionnaire. To conduct the questionnaire survey, prior permission was taken from the Head teacher/Principal of the respective school/institution. The trade instructors of the respective schools/institutions were also informed earlier. Trade instructor just introduced the researcher to the students in the classes as well as the objectives of his presence in the classes. The questionnaires were distributed among the students to answer questions. In case of failure of their understanding any question the researcher/ investigators were made it clear.

3.10.2 Questionnaire for Trade instructors

A questionnaire for the Trade instructors was also prepared and it has been distributed them. The questionnaire included two parts. Part-one included respondent’s name, gender, age, education, teaching experience, category of institutions (Government or MPO listed or others), education

and training achieved (teaching and trade related), and Part-two contains the VE related questions. The filled up questionnaires were taken back on different days.

3.10.3 Questionnaire for Head teachers/Principals

A questionnaire for the Head teacher/Principal was also prepared and supplied to them. The questionnaire included two parts. Part-one included respondent's name, gender, age, education, experiences of teaching, category of institutions (Government or MPO listed or others), and achieved training (teaching related) and Part-two contains the VE related questions. The filled up questionnaires were taken back from each of the Head teacher/Principal on different days.

3.10.4 Questionnaire for Guardians and Social leaders

A questionnaire for the guardians and social leaders was prepared and supplied to them. It has two parts. Part-one included the respondent's name, profession/designation, gender, age and working place/jobs descriptions and Part-two contains the VE related questions. The filled up questionnaires were taken back on different days.

3.10.5 Interview Schedule

An interview schedule was prepared for all types of respondents. It has also two parts. Part-one included the respondent's name, profession/designation, gender, age, and working place/job description/institution and part-two contains the VE related semi-structured questions that guided structured to open-ended answers. The researcher/investigator conducted the interview by written and face to face manner.

3.11 Primary Data Collection

By means of survey method, the data and necessary information of 500 students, 80 Trade instructors, 20 Head teachers/Principals and 142 guardians and social leaders were collected to know about the problems/challenges and prospects of VE. Fields have been surveyed from July to October, 2015. And an interview program occurred from September to October, 2016 for collecting opinion about the findings of survey from the 40 respondents including students, Principals/Head teachers, Trade instructors, guardians, curriculum specialist, education administrators and social leaders.

3.12 Secondary Data Collection

Secondary data were collected by means of content analysis of the documents collected from Bangladesh Bureau of Educational Information and Statistics (BANBEIS), Bangladesh Technical Education Board (BTEB), Directorate of Technical Education (DTE), Ministry of Education (MOE), Ministry of Labor and Employment (MOLE), National Skills Development Council (NSDC) and other relevant organizations.

3.13 Data Analysis Technique

The collected data were carefully reviewed, classified, tabulated, and analyzed and presented in tables and figures. The data were analyzed and presented in an orderly and systematic ways of some statistical techniques. The following research co-ordination indicated that the study were conducted and analyzed according to its objectives and demand of statistical approaches. Univariate and bivariate analysis (Frequency distributions, bivariate distributions for significance test) was used for estimating the required indicators. In addition, logistic regression (Multivariate

analysis) was used to measure the intensity of the explanatory variables on explained variables. Statistical Package for Social Sciences version 17.0 (SPSS Inc., Chicago, IL, USA) was used for statistical analysis.

Table 3.5: Research Co-ordination Matrix

Research objectives	Types of data	Sources of data	Methods of data collection		Analysis
			Technique	Tools	
To investigate the factors related to the challenges and prospects of vocational education in Bangladesh (RQ: 01)	Qualitative and Quantitative	Primary and Secondary	Questionnaire, interview and document analysis	Different questionnaire for four types of respondents i.e. students, trade instructors, head teachers/principals and guardians and social leaders. For interview one semi-structured interview schedule are used for all types of respondents. Books, journals etc. used for document analysis.	Descriptive and explanatory (Frequency distribution)
To describe the present state of vocational education (SSC Voc) in Bangladesh (RQ: 02)	Qualitative and Quantitative	Primary	Questionnaire and Interview	Different questionnaire for four types of respondents i.e. students, trade instructors, head teachers/principals and guardians and social leaders. For interview one semi-structured interview schedule are used for all types of respondents.	Descriptive (Frequency distribution)
To understand the factors relating to low enrolment of vocational education in Bangladesh (RQ: 03)	Qualitative and Quantitative	Primary and Secondary	Questionnaire, interview and document analysis	Different questionnaire for four types of respondents i.e. students, trade instructors, head teachers/principals and guardians and social leaders. For interview one semi-structured interview schedule are used for all types of respondents. Books, journals etc. used for document analysis.	Descriptive and explanatory (Frequency distribution and in depth analysis)
To analyze how are the background characteristics of participants associated with the factors relating to vocational education (RQ:03)	Qualitative and Quantitative	Primary	Questionnaire and Interview	Different questionnaire for four types of respondents i.e. students, trade instructors, head teachers/principals and guardians and social leaders. For interview one semi-structured interview schedule are used for all types of respondents.	Inferential (Cross Table)

To examine the effects of background characteristics of participants on the factors relating to vocational education (RQ: 03)	Qualitative and Quantitative	Primary	Questionnaire and Interview	Different questionnaire for four types of respondents i.e. students, trade instructors, head teachers/principals and guardians and social leaders. For interview one semi-structured interview schedule are used for all types of respondents.	Inferential (Binary logistic regression)
To explore the prospect factors relating to vocational education (RQ: 04)	Qualitative and Quantitative	Primary and Secondary	Questionnaire, interview and document analysis	Different questionnaire for four types of respondents i.e. students, trade instructors, head teachers/principals and guardians and social leaders. For interview one semi-structured interview schedule are used for all types of respondents. Books, journals etc. used for document analysis.	Descriptive and explanatory (Frequency distribution and in depth analysis)

3.14 Ethical Issues

The researcher went to collect data in the schools with request letter signed by the supervisors. Before starting data collection procedure, the researcher took the oral and written permission from the Head teacher/Principal. However, the researcher assured that the names of the schools and identities of the respondents from whom data were collected would not be disclosed. The researcher was always respectful while dealing with teachers and students in the schools. In the time of interacting with teachers, they were wanted to know the topic and purpose of the study and we requested for cordial assistance. The investigators assured that the data would not be disclosed in any way and the data were used for this specific research purpose only. To achieve the research goals, different factors like teaching-learning practices, teachers and students' behavior, their motivation, classroom interactions, physical facilities, expectations of teachers and students, attitude of trade instructors towards have been studied. No doubt, the experiences

of teachers and students and their classroom behavior represent the present state of teaching-learning at the secondary level of education in Bangladesh. Their beliefs and expectations reflected their psychological stand about teaching and learning trades.

3.15 Designing Questionnaire and Interview Schedule for the Study

A pilot study was done with 126 students and 50 trade instructors/teachers, 50 guardians before giving a final shape to the instruments for questionnaire survey. A few changes and adjustments were made in the light of the feedback received from the pilot study. The questionnaire for the study investigation was also designed in the light of the objectives of the study. The language of the questionnaire was Bengali and kept as simple as possible to avoid confusion and ambiguity. In addition, some experts who guided research earlier and some researchers who had done their investigations in the related fields of study both at home and abroad were also consulted. An interview schedule which is the instrument of qualitative part was designed followed by the findings of the quantitative part to investigate more details and in depth analysis of central phenomena of the study.

3.16 Validity and Reliability

This study conducted as mixed methods initiative. Here, the study entails the use of both qualitative and quantitative data. Traditionally the concepts used to express validity and reliability associated with quantitative research, for mixed methods, it is slightly broader than those. When working with qualitative data, the concepts of trustworthiness, dependability, transferability and reliability are also used. According to the Macmillan and Schumacher (2001), validity is the degree to which the interpretations and concepts have mutual meanings between the participants and the researcher. Reliability, on the other hand, according to Silverman (2004),

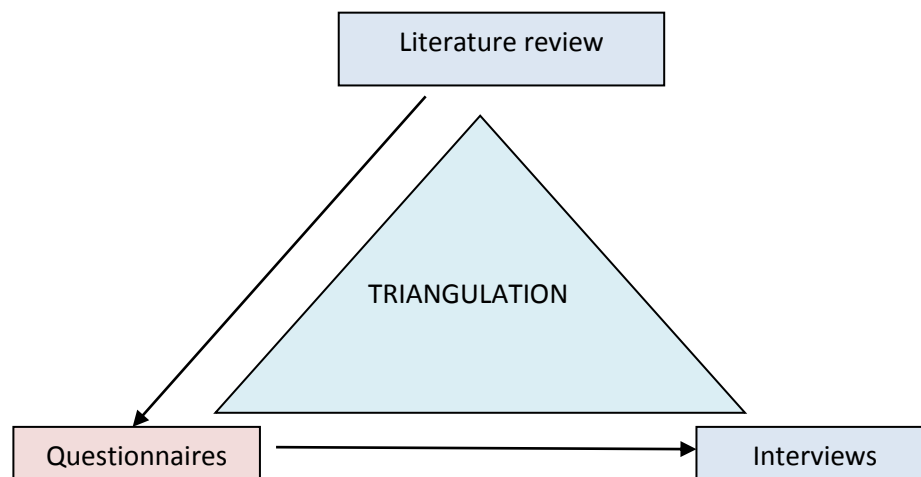
is the degree to which the findings of the research are independent of accidental circumstances. Joppe (2001) defines the reliability as the extent to which results are consistent over time, and are an accurate representation of the total population of the study. If the results of a study can be reproduced under a similar methodology, then the instrument is considered to be reliable (Mafuwane, 2011).

In this study, in order to ensure the validity and reliability of the content of the questionnaires were reviewed by the statisticians from the Department of Statistics, University of Rajshahi, Bangladesh and the supervisors of the researcher. Available books on research methods have also been studied to learn different data collection methods, sampling procedure and their strengths and weaknesses which helped to construct the questionnaires and interview schedule. The all questionnaires were piloted with ten secondary level vocational institutions in the two districts of Rajshahi Division, namely Bogra and Rajshahi and 226 (126 students, 50 Trade instructors, and 50 guardians) respondents of all groups of respondents. After piloting the questionnaires, valuable points have been added and questions that seemed to be un-useful have been excluded. Clear instructions have been provided to avoid ambiguity. Leading questions have consciously been avoided. Learned supervisors and senior researchers' suggestions have sincerely been considered. For ensuring validity and reliability, legitimizing the data, and lending credibility to the research report, triangulation, thick description and peer review were used in this study.

Firstly, it is discussed about triangulation. Triangulation is a verification procedure whereby researchers search for junction among multiple and different sources of information to form themes or categories in a study. It is a system of sorting through the data to find common themes or categories by eliminating overlapping areas. Triangulation was employed in this study for

gathering data. The 500 students, 80 Trade instructors, 20 Head Teachers/Principals and 142 guardians and social leaders are identified in various sampling manners to complete the four types of questionnaires. Moreover, 40 respondents were selected from all groups of respondents as per ratios for interviews, where male and female from different institutions and districts were ensured qualitative study, and thus provided multiple sources of information, and from which to form themes. The literature reviewed to provide secondary data which assisted to formulate questions for the questionnaire. In the questionnaire, most of the questions were drawn directly from the literature. The findings from the analyzed questionnaires informed the types of questions or themes which were included in the interview schedule. For data triangulation, there are three data sources used in this study, namely: literature review, questionnaires and interviews and how they are triangulated, are represented in the diagram below.

Figure 3.7: Representation of the triangulations of data sources



Source: Mafuwane, 2011.

For methodological triangulation, a study concerns itself with the use of both qualitative and quantitative methods in the same study. A detailed exploration of the two research methods has already been provided in this study. Secondly, thick description is a procedure that is used in

qualitative research to ensure validity and reliability. This procedure is concerned with describing the setting, the participants and the themes of a qualitative study in rich detail. Thick description has been used in this study in the presentation of qualitative research findings where the actual words of the participants have been used constantly. The purpose of reporting the findings using thick description is to provide as much detail as possible for the readers to make decision about the applicability of the findings to other settings or similar contexts. In this study, the researcher has described in detail the central phenomena with two sections, major themes and minor themes in chapter eight.

The third and last procedure for ensuring validity and reliability of this study is peer review. According to Lincoln and Guba (1985), peer review is the review of the data and research process by someone who is familiar with the research or the phenomena being explored. A peer reviewer provides support, plays devil's advocate, challenges the researchers' assumptions, pushes the researcher to the next step, and asks in-depth questions about methods and interpretations (Mafuwane, 2011). This procedure was used in this study during both phases of data collection and interpretation. The peer reviewer was an experienced person who has expertise and knowledge of the subject matter of the thesis and provided quality advice and feedback.

3.17 Summary and Conclusion

This chapter has focused on the research approach, design and methodology that used in this study. Detailed information regarding the mixed methods design and its relevance to this study were explored in this chapter. The following chapters construct on from the methodological propositions made in this chapter by employing the proposed data presentation and analysis approaches to analyze the quantitative and qualitative data.

CHAPTER FOUR

Factors Related to Vocational Education

4. Introduction

The purpose of this chapter is to identify the factors related to VE that represents the relation between independent and dependent factors where the demographic and socio-economic background of the respondents plays a role as independent factors which influence the respondents' attitude and behavior to various variables and phenomena to VE that was plays as dependent factors.

4.1 Independent Factors

The study considered four types of respondents namely students, trade instructors, head teachers/principals and guardians and social leaders. The demographic and socio-economic profiles of the respondents provide a logical basis to understand their attitude and behavior to VE. It has a strong influence to receive or deny the courses of VE. Before analyzing the factors determining the present situation, problems and prospects of VE, it is essential to describe socio-economic and demographic background of the respondents. It is easy understandable to focus on the frequency and percentage distribution of the considered demographic and socio-economic variables. In this study, a discussion was made of the background characteristics of four types of respondents (i) students, (ii) Trade instructors, (iii) Head teachers/Principals and, (iv) guardians and social leaders.

4.1.1 Background Characteristics of the Students

The ten factors were considered to illustrate the background characteristics of the respondents that are age, education levels, gender, father's and mother's education and occupation, monthly family income, district and type of institutions. Here age and gender were considered the demographic factors and others were socio-economic factors (Table 4.1).

Table 4.1: Background characteristics of the students ($n = 500$)

Factors	Frequency (n)	Percentage (%)	Factors	Frequency (n)	Percentage (%)
Age (in years)			Father's occupation		
13 – 15	299	59.80	Service	84	16.80
16 – 20	201	40.20	Agriculture	146	29.20
Gender			Business	169	33.80
Male	263	52.60	Others	101	20.20
Female	237	47.40	Mother's occupation		
Education level			Housewife	468	93.80
IX (Nine)	286	57.20	Service	16	3.20
X (Ten)	214	42.80	Others	16	3.20
Father's education			Monthly family income (in Taka)		
Illiterate	52	10.40	≥ 2000	104	20.80
Primary	204	40.80	2001 – 5000	160	32.00
Secondary	160	32.00	5001 - 10000	116	23.20
Higher secondary	36	7.20	10001 - 15000	56	11.20
Degree and above	48	9.60	15001 - 20000	34	6.80
Mother's education			>20000	30	6.00
Illiterate	42	8.40	District		
Primary	250	50.00	Rajshahi	249	49.80
Secondary	170	34.00	Bogra	140	28.00
Higher secondary	26	5.20	Natore	111	22.20
Degree and above	12	2.40	Institution's type		
			Government	243	48.60
			Non-government MPO	203	40.60
			NGO	54	10.80

Note: MPO: Monthly Payment Order, NGO: Non-Government Organization

4.1.1.1 Demographic Characteristics of the Students

Demographic characteristics play an important role in the analysis of present status, challenges and prospects of VE in Bangladesh. Data were collected from 500 students from the study area.

The frequency and percentage distribution of the selected demographic variables are given below:

4.1.1.1.1 Age

Age is one of the most important influential factors to enter in VE. It gives an idea about what proportion under particular age groups are admitted in VE. From Table 3.1, 299 (59.80%) students ranges in age group (13-15) years which means that they are regular students and 201(40.20%) students ranges in age group 16-20 years are irregular students that may be represented the drop-out students whose are admitted in VE. Table 3.2 also revealed that 286 (57.20%) studied at class IX and 214 (42.80%) student studied at class X.

Table 4.2: Percentage distribution of the students by their ages and classes ($n = 500$)

Age (in years)		Classes		Total
		IX (Nine)	X (Ten)	
		Number (%)	Number (%)	
Age group	13 - 15	211 (73.80)	88 (41.10)	299 (59.80)
	16 – 20	75 (26.20)	126 (58.90)	201 (40.20)
Total		286 (100.00)	214 (100.00)	500 (100.00)

Among 286 students of class IX, 211 (73.80%) students range in age group 13-15 years which mean that they are regular students. (Among them) only 75 (26.20%) students are in the age group 16-20 years are irregular students that may be represented the drop-out students whose are admitted in VE. Among 214 student of class X, 88 (41.10%) students are in the age group 13-15 years which means that they are regular students. Among 214 student of class X, 126 (58.90%) students range in the age group 16-20 years are irregular student that may be represented the drop-out student admitted in VE (Table 4.2). From this table it can be said that majority of the students admitted in the SSC (Voc) course were regular.

4.1.1.1.2 Gender

Gender is an important demographic factor for analysis any developmental issue like educational enrollment. Considering gender factor, it is a great signer to reduce social discrepancy in every aspect. In this study, it was considered consciously that opinion collected from the respondents without gender biasness. The study revealed that 52.6% respondents were male and 47.4% respondents were female which shows that their opinions are normally distributed by gender (Table 4.1).

4.1.1.2 Socio-economic Characteristics

Socio-economic characteristics reflect the social and economic condition of a society which is very important determinant factors for the analysis of various variables related to any kind of data. In this study, the factors fathers and mother's education and occupation, monthly family income, district (region), types of institutions etc. were considered to interpret the respondent's opinion. The percentage distributions of these socio-economic factors are discussed in the following manner:

4.1.1.2.1 Father's Education

In Bangladesh, most of the families are dominated by fathers as guardians and main income generating person. Traditionally a father makes decision in maximum context of family affaires including child education, marriage, selecting profession and many other cases of child future life and his education also contributes to construct his children's mental structure, perception, attitude and approach. In this case, father's educational background plays a vital role in children lives including their making perception to take proper decision in every aspect. This study results revealed that most of the respondent's father's educational qualification (83.2%) up to secondary level. Under this, half (40.8%) of them are primary level education and it is the large portion of

fathers. There are 10.4% fathers are illiterate and only 9.6% fathers have degree level and above education (Table 4.1). Thus, it is clear that most of the students in VE come from less fathers' education level.

4.1.1.2.2 Mother's Education

Mother is the centrifugal force of a family. Mother's education always deposits a positive impact in a family. Mother's education also influences the children attitude, approach and perception as like as father's education. The results revealed that the mother whose educational qualification up to secondary level (92.4%) are about 10.0% more than that of father's educational qualification (83.2%). This meant that mothers are less qualified than fathers. The halves of the mothers' (50.0%) education are primary level and it is the large portion of mothers. There are 8.4% mothers are illiterate. Only 3.0% mothers have bachelor and master degree which is also less than that of fathers (Table 4.1). The comparison between fathers and mothers' educational qualification clarifies that in Bangladesh till now a day's mothers are less qualified than fathers in the families.

4.1.1.2.3 Father's Occupation

Occupation is the very influential variable of socio-economic characteristics. Person's economic condition depends on his occupation and economic condition motivates other socio-economic factors. Father's economic condition can fix up their children education status and level. In many situations it plays the negative role to survive children in educational institutions. One of the major causes of drop-out is father's poor economic condition. The study findings showed that fathers' occupation possess the first position is business (33.8%), second position agriculture (29.2%) and third position service (16.8%). The mentionable finding is that majority of the father's occupation are business and agriculture because they are lower education holders (Table 4.1).

4.1.1.2.4 Mother's Occupation

Mother's occupation also plays a vital role to their children education status. A service holder or business woman mother can help their children to receive better education whatever she chooses. On the other hand, a housewife or jobless mother cannot play the similar role as like as service holder or business woman mother. The results revealed that most of the mothers (93.6%) are housewife (Table 4.1). It means that most of the VE students come from that type of families that their income generating person only father.

4.1.1.2.5 Monthly Family Income

In this study monthly income is grouped into six categories. Monthly expenditure depends on monthly income. It might have some influences on living status and education, health care etc accessibility. Generally, people think that the family with higher monthly income has a higher purchasing power to get any service or opportunity than family with lower monthly income although they have a monthly saving. Among the six categories the largest category is 2001-5000 where the maximum 32.0% students' monthly family income falls. There are 76.0% student's monthly family income is under 10,000 and only 6% student's monthly family income is over twenty thousand BD Takas (Table 4.1). This study also revealed that students whose are receiving VE come largely from low income level families.

4.1.1.2.6 District

Data were collected from three districts (Rajshahi, Bogra, Natore) of Rajshahi division, Bangladesh. Of them around half (49.80%) portion respondents were come from Rajshahi district because of Mohila Technical Training Centre (MTTC) and NGO (UCEF technical

school) directed schools are situated here. In Rajshahi district, student respondents are 22.0% more than Bogra district and 28.00% more than Natore district (Table 4.1).

4.1.1.2.7 Types of Institutions

The VE institutions were classified into three types, viz. government, non-government monthly payment order (MPO) listed (non-government institutions where government provides staff salary and others infrastructure support) and NGO directed institutions. There are around half (48.6%) of the students were selected and the more trades were introduced in Government institutions (Table 4.1).

4.1.2 Background Characteristics of Trade instructor

Trade instructors are the very closer part of the VE. They involve in the implementation level of curriculum of VE. In this study, they were considered as important respondents to know the real present situation, problems and prospect of VE. The demographic and socio-economic factors of Trade instructors may influence the study effectively. The study collected data from 80 Trade instructors to assess the factors. The frequency and percentage distribution of the selected demographic and socio-economic factors are given below:

Table 4.3: Background characteristics of the Trade instructors ($n = 80$)

Factors	Frequency (<i>n</i>)	Percentage (%)	Factors	Frequency (<i>n</i>)	Percentage (%)
Age (in years)			Teaching exp. (in years)		
20 – 39	46	57.50	1 – 12	41	51.20
40 – 59	34	42.50	>12	39	48.80
Gender			District		
Male	66	82.50	Rajshahi	35	43.80
Female	14	17.50	Bogra	24	30.00
Edu. qualification			Natore	21	26.20
HSC/equivalent	44	57.10	Institution's types		
Degree/equivalent	16	20.80	Government	22	27.50
Masters/equivalent	17	22.10	MPO listed and NGO	58	72.50)

Note: MPO: Monthly Payment Order, NGO: Non-Government Organization, HSC: Higher Secondary School Certificate

4.1.2.1 Demographic Characteristics of Trade instructors

Demographic factors were considered in this study are age and gender of the respondents. Here 80 respondents were considered to assess the factors. A discussion was made of the selected demographic variables is given below:

Age is one of the most important influential factors to assess something like educational variables. Because of age influenced the person by achieving experience and knowledge. In this study it helps to know the ideas and views of the respondents about the society's attitude to the VE. The study results revealed that majority of the trade instructors (57.5%) are comparatively young (age 20-39 years) and contemporary in ideas and knowledge about VE.

Gender is also very important factor of demographic characteristics for analysis any issue and perception due to its various discrepancies in society. In this study, gender was considered consciously and opinion collected from the respondents without gender biasness. The study revealed that 82.5% Trade instructors are male and 17.5% are female which shows that collected opinion for this study are normally distributed by gender (Table 4.3).

4.1.2.2 Socio-economic Characteristics of the Trade instructors

The socio-economic characteristics of Trade instructors named education; teaching experience, type of institutions (where Trade instructors are employed) and district are considered for analyzing the factors related to VE. The results of factors described in the following way:

4.1.2.2.1 Educational Qualification

This results revealed that more than half (57.10%) of the Trade instructors' educational qualification were HSC/equivalent. Most of the equivalent degree is diploma of related

vocational and technical trade. There are 20.8% Trade instructors also having bachelor/equivalent degree and 22.1% are masters/equivalent degree (Table 4.3). The educational qualifications of Trade instructors were found satisfactory.

4.1.2.2.2 Teaching Experiences

The study also revealed that more than half (51.2%) of the Trade instructors are having 1-12 years teaching experiences which are satisfactory and it is mentioned that the teaching staff are till now young. There are 48.8% Trade instructors have achieved experiences above twelve years (Table 4.3). The study identified that teaching experiences of trade instructors are satisfactory level.

4.1.2.2.3 Type of Institutions

The respondents were selected from the government, MPO listed non-government and NGO directed institutions. The government owned institutions includes Technical Training Centers (TTC) and Vocational and Technical Schools and Colleges. Most of the trade instructors (72.50%) were found non-government MPO listed and NGO employed (Table 4.3).

4.1.2.2.4 District

Data were collected from three districts (Rajshahi, Bogra, Natore) of Rajshahi division, Bangladesh. More than one third (43.80%) portion respondents were from Rajshahi district. As the student respondents, easy access and situating the MTTC and NGO directed institution, Trade instructor respondents were more selected in Rajshahi district than other two districts. It is the same case in Bogra district than Natore (Table 4.3).

4.1.3 Background Characteristics of Head teacher/Principal

Head teachers/Principals are the management part of the VE. They involve in the implementation level as an administrative and monitoring successor of VE. The study considered them as an important part to certify the opinion of the other respondents as a well-known person about the real present situation, problems and prospect of VE. The demographic and socio-economic factors of Head teachers/Principals may influence the study effectively. Data were collected from 20 Head teachers/Principals to assess the factors. The frequency and percentage distribution of the selected demographic and socioeconomic variables are given below:

Table 4.4: Background characteristics of the Head teachers/Principals (n=20)

	Frequency (n)	Percentages (%)
Age (in years)		
25-42	7	35.00
43 – 59	13	65.00
Gender		
Male	19	95.00
Female	1	5.00
Education		
Degree/equivalent	5	25.00
Masters/equivalent	15	75.00
Training		
B. Ed	5	25.00
M. Ed	2	10.00
Others	3	15.00
No training	10	50.00
Teaching experience(in years)		
≤ 20 years	13	65.00
>20 years	7	35.00
District		
Rajshahi	7	35.00
Bogra	8	40.00
Natore	5	25.00
Institution's types		
Government	4	20.00
Non-government MPO	14	70.00
Others (NGO and private)	2	10.00

Note: MPO: Monthly Payment Order, NGO: Non-Government Organization, B. Ed: Bachelor of Education, M. Ed: Master of Education

The results revealed that most of the respondents (65.0%) were found aged 43-59 years. The heads of these institutions were found adult enough and thus their perceptions and knowledge are

dependable. It is found that almost all (95.0%) respondents were male and most of them (65.0%) were experienced (≤ 20 years). In case of institutions type, it is found that most of the institutions (70.0%) are non-government MPO listed (where the Head teachers or Principals were working). Most of the Head teachers or Principals (75.0%) have masters/equivalent degree, and half of them (50.0%) have any professional training (Table 4.4).

4.1.4 Background Characteristics of Guardian and Social leader

Guardians or parents are very influential factor for choosing career of a student and they provide endless support to achieve career path in each and everybody. Similarly, the social leaders can play an important role to give instructions in this regard. The study considered them as the effective respondents to collect data about the attitude towards VE. The demographic and socio-economic factors of the guardians and social leaders are very needful. The study collected data from 142 guardians and social leaders to assess the factors related to the problems and prospects of VE. The frequency and percentage distribution of the selected demographic and socio-economic variables are given below:

Table 4.5: Background characteristics of the guardians and social leaders (n=142)

Factors	Frequency (n)	Percentage (%)
Age (in years)		
18 – 39	73	51.40
≥ 40	69	48.60
Gender		
Male	98	69.00
Female	44	31.00
Type of respondents		
Guardians	51	35.90
Social leaders	91	64.10

The guardians and social leaders were involved to give opinion irrespective of age group in this study. Their perception and knowledge were considered valuable for assessing the condition of various aspects of VE. The results revealed that around half of the respondents (51.4%) were aged 18-39 years and most of the respondents were male (69.0%) and social leaders (64.1%) (Table 4.5).

4.2 Dependent Factors

Various attitudes exist towards VE in the society. In developing countries, it is very much complicate. In Bangladesh, VE suffers many kinds of challenges; negative attitude is one of the most important barriers to it. Negative attitude towards VE are influenced by some important factors which strongly connected to the vocational professional character namely social dignity, social values, physical labor, religious customs and restrictions for girls.

4.2.1 Social Dignity

Parents want their children to get even a clerical job or office assistant because of the desk oriented job nature though a technician can earn more than these jobs. In many countries like Bangladesh, VE has always been considered by the peoples and parents as the carrier choice for the less academically qualified students with the image that VE is for drop-outs and weak students though it is an important education to make skilled workers. Peoples invest too much attention and resources to general education rather than VE (Kumar, 2015). Two social dilemmas exist here that one is, only weak student admitted in VE because they are not enough intelligent to continue GE and another is, the VE is narrowing the scope of future professional prospects. Vocational graduates do not get enough social respect because their opportunities are very limited (Newaz, 2013). But in this study, the results revealed that mindset of the educated people are changing. There are 52.5% Trade instructors and 75.0% Head teachers were disagreed with this idea. But among the guardians and social leaders it is mildly (51.4%) were agreed with this idea (Table 4.6).

Table 4.6: Opinion about social dignity of VP

Question	Trade instructor (n=80)		Head teacher /Principal (n=20)		Guardian & Social leader (n=142)	
Do you the think that VP suffers the less social dignity?	Yes	No	Yes	No	Yes	No
	38 (47.5)	42 (52.5)	5 (25.0)	15 (75.0)	73 (51.4)	69 (48.6)

Note: VP: Vocational Profession, percentage shown in parenthesis

The results also revealed that between the guardians and social leaders there are 62.74% guardians were agreed with this idea but on the other hands, 45.05% social leaders were agreed with this matter (Table 4.7).

Table 4.7: Opinion between guardians and social leaders

Question	Opinion	Respondent		Total
		Guardians	Social leaders	
Do you think that vocational profession suffers the less social dignity?	Yes	32 (62.74)	41 (45.05)	73(51.4)
	No	19 (37.26)	50 (54.95)	69(48.6)
	Total	51 (100.0)	91 (100.0)	142(100.0)

Note: percentage shown in parenthesis

4.2.2 Traditional Social Values

Our social custom/tradition is that some specific jobs and skills must be specified for some castes or groups of people of the society. The transmission of a given profession from generation to generation, within strictly family, group or caste, is a founding element of many societies in South-Asia (Vollmann, 2010). Traditions actually cover a wide and complex variety of social behavioral patterns, where strict rules of kinship play a major role. It is one of the biggest obstacles for TVET in the rural areas that a special group of people of the community are governing specific jobs and skills as the traditions of the community. For example, the son of fisherman is to be fisherman, son of carpenter to be carpenter, and so on. We are obviously confronted with a complex social and cultural situation in rural areas: i) the ever present role of strong kinship ties, ii) traditional marriage patterns, often resulting in keeping women at home, iii) the power of religious, linguistic and ethnic values and beliefs, generating specific behavior patterns, and finally, iv) the rigid and exclusive professional picture. All the above mentioned elements have direct impacts on the success or failure of TVET policies. Vollmann (2010), defines that the prevalence of specific traditional value systems and clarify consequent rigid behavioral patterns, characterize life, and professional life, in the rural areas. In this study the

researcher also found the same values exist in Bangladesh society. The respondents (Head teachers and guardians and social leaders) were agreed about this matter (Table 4.8).

Table 4.8: Negative social values

Comments	Head teacher /Principal (n=20)		Guardian & Social leader (n=142)	
	Yes	No	Yes	No
It is the value of the society that learning other cast vocational trade (like kamar, kumar, tanti etc) is dishonorable. So, it is a problem of creating skill of that vocational trade from generation to generation.	15 (75.0)	5 (25.0)	106 (74.6)	36 (25.4)

Note: percentage shown in parenthesis

4.2.3 Physical Labor

VE is basically work based and its employment nature is widely mid-level rank and income oriented, so guardians do not send their children to VE institutions in spite of weak quality merits of them. The negligence about VE is not entirely the fault of government. It is also because of public and middle class mindsets and an illogical biasness for white-collar employment. The society does not care about honoring or celebrating blue-collar employees. For instance, even if an automobile mechanic has ten trainee apprentices under him, we would not regard him as a teacher. The government has fuelled such social prejudice by failing to connect VE with the world of work (Yasmeen, 2014). The researcher has tried to give a clear picture about the matter in the next chapter. All respondents were agreed that it is the great cause of less enrolment in VE (Table 5.10).

4.2.4 Religious, Social and Cultural Restriction for Girls

In South Asian countries, women faces many kinds of complex ground realities like low levels of literacy, discriminatory social customs and traditions, limited hours available in training and work, limited exposure and unfamiliarity with new technology (Chenoy, 2012). In this area and

especially in rural areas of Bangladesh, customs and traditions actually cover a wide and complex variety of social behavior patterns, where strict rules of kinship play a major role. At kinship structures we would be able to identify certain rules relating to the exercise of professional activities as well as the place of women in rural communities. The most well-known kinship practices can be found in current marriage traditions where early and arranged marriages are largely practiced according to strict kinship rules. According to inherited rules of social behavior most of the marriages are patrilocal (bride lives at in-laws place) which is exogamous in Hindu communities and endogamous in Islamic communities. Another but rare practiced is called matrilocal (bridegroom stays with his in-laws) are found in some ethnic group. Heritage, land or other property is transmitted either following the patrilinear or matrilinear rules. According to customary and religious laws girls inherit nothing in Hindu communities and in Islamic community daughters would be entitled to 50 percent of what the male inheritor would receive. In rural areas for the reason of patrilocal marriage and patrilinear inheritance system young women tend to be strongly excluded or discouraged from work or learning a job or skill. It has been also found that early marriages tend to keep young women at home and in pursuance of purdah (To follow the Islamic dress) tradition they expected to raise children and be a home provider. Women living in such rigid marital conditions are usually not showing much interest in any kind of job training or VE neither are they encouraged by their husband or his family (Vollmann, 2010). In this study all respondents were commented about this matter and the results revealed that 73.20% guardians and social leaders were agreed with this comment (Table 4.9).

Table 4.9: Cause of Low Entrance of Girls in Vocational Education

Comments	Student (n=500)		Trade instructor (n=80)		Head teacher (n=20)		Guardian & Social leader (n=142)	
	Yes	No	Yes	No	Yes	No	Yes	No
Religious, social and cultural restrictions for girls is a cause of low entrance in VE	288 (57.8)	212 (42.2)	42 (52.5)	38 (47.5)	10 (50.0)	10 (50.0)	104 (73.2)	38 (26.8)

Note: percentage shown in parenthesis

4.3 Low Quality Vocational Education

Low quality of VE do not inspire the guardians/children to involve in this education, because of, a vocational graduate while fails to show sufficient skills about their related trade after completion of course, others realized that it is bogus or good for nothing. In this context, the society neglects VE. The trades of most vocational institutes are obsolete and they have little interaction with industry. The consequence is that we will never catch up with China or Korea in industrial manufacturing (Yasmeen, 2014). The study revealed that all respondents were agreed with the comments that lack of proper education is also a cause of less enrolment (Table 4.10). The study also revealed that only 56.2% Trade instructors were agreed that SSC (Voc) course are qualitative but there are 85.0% Head teacher and 76.1% guardian and social leaders were disagreed with that (Table 4.10).

Table 4.10: Quality of SSC (Voc) course

Question	Trade instructor (n=80)		Head teacher /Principal (n=20)		Guardian & Social leader (n=142)	
	Yes	No	Yes	No	Yes	No
Do you think that SSC (Voc) course is qualitative?	45(56.2)	35(43.8)	3(15.0)	17(85.0)	34(23.9)	108(76.1)

Note: percentage shown in parenthesis

In this study, it was considered the some causes of low quality of VE. The most of the cases the respondents were strongly agreed with the causes. The causes are as follows: a) Lack of skilled and trained teacher, b) Shortage/insufficient of class rooms, c) Lack of lab and instruments, d) Lack of practical experiences/expertise of teacher, e) Lack of sincerity and regularity of teachers and instructors, f) Lack of students own sincerity, g) Lack of guardian consciousness and help, and h) Lack of monitoring of the head of institutions (Table 4.11).

Table 4.11: Causes of low quality SSC (Voc)

Comments	Trade instructor (n=35)		Head teacher /Principal (n=17)		Guardian & Social leader (n=108)		
	Yes	No	Yes	No	Yes	No	Do not know
Lack of skilled trained teacher/instructor	34 (97.1)	1 (2.9)	16 (94.1)	1 (5.9)	89 (82.4)	19 (17.6)	0 (0.0)
Shortage/insufficient class room	31 (88.6)	4 (11.4)	10 (58.8)	7 (41.2)	83 (76.9)	24 (22.2)	1 (0.9)
Lack of lab and instruments	35 (100.0)	0 (0.0)	16 (94.1)	1 (5.9)	98 (90.7)	9 (8.3)	1 (0.9)
Lack of practical experiences	31 (88.6)	4 (11.4)	13 (76.5)	4 (23.5)	92 (85.2)	15 (13.9)	1 (0.9)
Lack of sincerity and regularity of teacher and instructor	20 (57.1)	15 (42.9)	8 (47.1)	9 (52.9)	72 (66.7)	26 (24.1)	10 (9.3)
Lack of students own sincerity	33 (94.3)	2 (5.7)	14 (82.4)	3 (17.6)	82 (75.9)	19 (17.6)	7 (6.5)
Lack of guardians consciousness and help	32 (91.4)	3 (8.6)	14 (82.4)	3 (17.6)	77 (71.3)	28 (25.9)	3 (2.8)
Lack of monitoring of head of institute	17 (48.6)	18 (51.4)	6 (35.3)	11 (64.7)	77 (71.3)	27 (25.0)	4 (3.7)

Note: percentage shown in parenthesis

4.3.1 Shortage of Skilled Instructors and Physical Facilities

The acute shortage of skilled instructors and teachers is the main cause of less quality of VE, in addition, shortage of physical facilities of institutions like class rooms, labs, equipments and workplaces (for practical apprenticeship) also affect the quality of VE negatively. VE is not only for achieving certificates; it has the big part on practical training. When students do not find efficient instructors in their institutions, they lose interest in VE. Eventually the students will remain unskilled that will discourage others to get themselves admitted into VE. Both of these problems are created because of insufficient skills of Trade instructors. The WB (2006) indicates that VE in Bangladesh suffers from under-utilization of resources, lack of equipments, unavailability of qualified instructors; shortage of teacher's training facilities, and out dated and obsolete curriculum. In this study, it is revealed that the respondents whose were disagreed with the quality of VE they were also agreed with the same discussion above. Almost all Trade instructors (97.1%), Head teachers (94.1%) and guardians and social leaders (82.4%) said that lack of skilled and trained instructors is the cause of low quality of VE. There are almost all Trade instructors (88.6%), most of the Head teachers (58.8%) and most of the guardians and

social leaders (76.9%) were agreed with the cause shortage of sufficient class room and there are all Trade instructors (100.0%), almost all Head teachers (94.1%) and guardians and social leaders (90.7%) also were agreed with the cause lack of labs and instruments are liable for low quality of VE (Table 4.11).

4.3.2 Theoretical and Practical Learning

One of the main criticisms of VE and skill development training programs are their acceptability to market standards in terms of practical learning quality and type of skills required (Kumar, 2015). The vocational institutions need to achieve proper practical skill development among their graduates by conducting regular and sufficient practical session with the theoretical background. The Government inherited an apprenticeship act in 1961 to connect job seekers and industrial units. It will have to be obligatory for employers to provide basic skills and job trainings according to prescribed standards. There is a need for improvements in the act 1961 because of the present times, circumstances and challenges faced by youth which are different from those existed at that time of the formulation of the act. The employment scenario has changed and for this reason, different types of skills are required to meet the present industrial demand. This study is obviously exposed that lack of practical experiences and expertise of teacher, student cannot learn trade lesson properly. Absence of apprenticeship and lack of labs and instruments, student may be strongly deprived from practical learning. In this study, there are almost all Trade instructors (88.6%), most of the Head teachers (76.5%) and almost all guardians and social leaders (85.2%) were agreed with this opinion (Table 4.11).

4.3.3 Poor Management

A proper monitoring and evaluation system would help to promote the vocational institutions in taking steps in time when needed and assure quality of education and training for sustainable skill development. It is very important and crucial to evaluate the progress and quality of practical learning and training of students provided by the teacher/instructor and whether it is between the needs of learners and the nature of education or training provided or between the kinds of skill and the demand of job market. In this study, it has been investigated the management activities for quality assurance of VE, it is found that there are 57.1% Trade instructors were agreed with the cause lack of sincerity and regularity of the trade instructors but 52.9% Head teachers/Principals were disagreed with the same. On the other hands, 66.7% guardians and social leaders were agreed with this cause. It is also found that there are 51.4% Trade instructors and 64.7% Head teachers were disagreed with the cause lack of proper monitoring of the head of the institutions to ensure teaching learning activities but 71.3% guardians and social leaders were agreed with the same (Table 4.11).

4.3.4 Teacher Training

A good and high performing teacher always can increases student learning and perception. In VE, the quality of skilled graduates is directly related to the quality of teachers or instructors. Quality can be improved in several ways: encouraging industry participation in training of teachers, using local practitioners of trades to impart skills in demand in that particular area, setting standards for the quality of instruction and augmenting and improving the quality of teacher training. In the context of teacher training, it has been investigated the status of trained teacher appointed in VE, the study found that there are 67.5% Trade instructors were agreed that

in VE sector have trained teacher for teaching but there are 55% Head teachers were disagreed with the same matter. There are 58.5% guardians and social leaders also were agreed that VE have trained teacher (Table 4.12). The overall comments were mentioned that the training of teachers of VE is not satisfactory level.

Table 4.12: Quality of SSC (Voc) course

Comments	Trade instructor (n=80)		Head teacher /Principal (n=20)		Guardian & Social leader (n=142)		
	Yes	No	Yes	No	Yes	No	Do not know
Have any skilled teachers/ instructors in VE	54 (67.5)	26 (32.5)	9 (45.0)	11 (55.0)	83 (58.5)	44 (31.0)	15 (10.6)
Syllabus of SSC(Voc) is sufficient and skill based	48 (60.0)	32 (40.0)	10 (50.0)	10 (50.0)	70 (49.3)	39 (27.5)	33 (23.2)

Note: percentage shown in parenthesis

4.3.5 Teaching and Learning of Trades

Since the VE is work based and training oriented education, so, teaching and learning of VE strongly depends on practical class and apprenticeship. It is known to all that and the investigation of this study also revealed that physical facilities of VE institutions of study area are poor and problematic. In this connection, the teaching and learning condition of VE may be poor. But the Trade instructors try to conduct their teaching as much as possible for student better learning. In this study, the researcher asked the question to students about their conducted practical class. There are almost all students (84.0%) were commented that they learn their trade lesson practically (Table 4.13).

Table 4.13: Practical learning of VE

Question	Student (n=500)		
	Opinion	Frequency (n)	Percentage (%)
Do you learn your trade lesson/work practically?	Yes	420	84.0
	No	80	16.0
	Total	500	100.0

4.3.6 Extra Care

There are normally weak and drop-out students admitted in VE. Sometimes it may be needed extra care for their proper learning of trade lesson. In this context, the researcher asked the students to get any extra class or help from the teacher outside the class room. Most of the students (55.20%) were agreed that they get extra classes from teachers for their help of learning and 73.8% were agreed that they get any type of help related to trade works outside the class room (Table 4.14).

Table 4.14: Opinion about extra care in VE

Question	Student (n=500)		
	Yes	No	Total
Is the teacher conducted any extra class for weak student?	276(55.2)	224(44.8)	500(100.0)
Do you get any help from the teacher related to trade work outside the class room?	369(73.8)	131(26.2)	500(100.0)

Note: percentage shown in parenthesis

4.4 Lack of Awareness about Vocational Education

In comparison with the history of education, the history of VE is very recent. The VE providers and the government have not taken necessary steps to build awareness about VE among the people. In Bangladesh, about 40.0% peoples are illiterate, most of the guardians of rural areas are the same and urban area it is mildly increased. In this situation, awareness of VE cannot be good. This is why, the common people of Bangladesh have lacking for clear perception of VE which are the researcher assumes, and results are low enrollment in VE. In this context, the researcher asked the question to the students that whether they feel any lack of awareness about VE. The study revealed that there are 73.0% students answered that they feel having lack of awareness about VE in the society (Table 4.15).

Table 4.15: Lack of awareness about VE

Student (n=500)		
Opinion	Frequency (n)	Percentage (%)
Yes	365	73.0
No	135	27.0
Total	500	100.0

4.5 Appropriateness of Vocational Education

Though the VE suffers many kinds of problems and challenges, then it is very acceptable for the students. The students whose are admitted in VE are satisfied in most of the cases for its appropriateness of learning content and acquiring skills matter for developing a competent person in demand of job market and others socio-economic context. In the whole world, VE are treated as a fruitful and demand oriented education. In Bangladesh, it should be treated as the same. So, In spite of some obstacles, in Bangladesh, it is growing popular to the students, guardians and other stakeholders. The Government has also good willingness to patronize VE for development of skilled manpower. In this context, the researcher investigated the mind setting of the students about the present situation of VE. There are almost all students (99.6%) were commented that the techniques that students learn in the VE are useful in their daily life, 98.8% were commented that they feel good about the subject matter that they study in VE, 85.0% were commented that they understand the study content clearly in their class room, 91.2% were commented that they will be able to perform as a skilled worker after completion of SSC (Voc) course, 67.4% were commented that having no one subjects or one or more subjects as a hard for their understanding in SSC (Voc) course, 98.4% were agreed that VE trades may be ensured their professional life as an self-employed or an employee of any industries, 95.2% were commented that they feel honored for getting that type of job which they get after completion of VE course, 55.6% were commented that they do not think that they have limited job scope for

admitting in VE, 75.8% were commented that they do not think that VE profession suffers less income crisis, 97.2% were commented that they think that VE has vast scope of employment in foreign country and for this reason they can earn the most needful foreign currency for our country and 68.6% were also commented that they do not feel that the VE is not expensive than General Education (GE) (Table 4.16).

Table 4.16: Indicator of appropriateness of VE according to student opinion

Indicators	Opinion (n=500)	
	Yes	No
Techniques that students learn in VE are useful in daily life	498(99.6)	2(0.4)
Students feel good about content that study in VE	494(98.8)	6(1.2)
Understanding of study content clearly that teach in VE class rooms	425(85.0)	75(15.0)
After completion of SSC, students can able to perform as a skill worker in own trade	456(91.2)	44(8.8)
One or more subjects are very difficult for students that teach in VE class or course	163(32.6)	337(67.4)
As a work based education VE, insured learner's professional life as an employee.	492(98.4)	8(1.6)
Students feel honored for that kinds of jobs which getting after completion the SSC (Voc)	476(95.2)	24(4.8)
Students feel anxiety for limited job scope in vocational profession	222(44.4)	278(55.6)
Students feel less income in vocational profession	121(24.2)	379(75.8)
Students feel having vast scope of employment in abroad after completion the VE	486(97.2)	14(2.8)
Students feel expense of VE is more than general education	157(31.4)	343(68.6)

Note: percentage shown in parenthesis

In this context, it has been collected the opinion from others respondents like Trade instructors, Head teachers and guardians and social leaders about the appropriateness of VE. There are 82.5% Trade instructors, 75.0% Head teachers and 65.5% guardians and social leaders were commented that the SSC (Voc) course are enough competent with our social-economic and political need. There are also 61.2% Trade instructors, 70.0% Head teachers and 45.8% guardians and social leaders were commented that VE trades and syllabus are appropriate for job market. In about appropriateness of job markets of VE trades, there are 29.6% guardians and social leaders were commented that they do not know about this matter (Table 4.17).

Table 4.17: How appropriate SSC (Voc) course as a VE

Comments	Trade instructor (n=80)		Head teacher /Principal (n=20)		Guardian & Social leader (n=142)		
	Yes	No	Yes	No	Yes	No	Do not know
SSC(Voc) is enough with social and political need	66 (82.5)	14 (17.5)	15 (75.0)	5 (25.0)	93 (65.5)	28 (19.7)	21 (14.8)
Trades and syllabus of VE are appropriate for job market	49 (61.2)	31 (38.8)	14 (70.0)	6 (30.0)	65 (45.8)	35 (24.6)	42 (29.6)
Trades are not appropriate for job market	20 (57.1)	15 (42.9)	11 (64.7)	6 (35.3)	59 (54.6)	39 (36.1)	10 (9.3)

Note: percentage shown in parenthesis

4.6 Mismatch with Job Markets

In Bangladesh, graduates do not know what sort of jobs they will get after finishing the education. It mainly occurs for mismatch between the education offered and the demand in the job market (Yasmeen, 2014). In this study, it has been investigated the opinion about the mismatch of trades offering and learning with the job market. Here the respondents whose are not agreed with the quality of VE are satisfactory level, they only opined in this context. So, the researcher found that there are 57.1% Trade instructors, 64.7% Head teachers and 54.6% guardians and social leaders were agreed with this comment that trades are not appropriate with the job markets (Table 4.18).

Table 4.18: How appropriate SSC (Voc) with job market

Comments	Trade instructor (n=35)		Head teacher /Principal (n=17)		Guardian & Social leader (n=108)		
	Yes	No	Yes	No	Yes	No	Do not know
Trades are not appropriate for job market	20 (57.1)	15 (42.9)	11 (64.7)	6 (35.3)	59 (54.6)	39 (36.1)	10 (9.3)

Note: percentage shown in parenthesis

4.7 Limited Scope of Higher Education

One of the biggest problems for VET in South Asian countries is the poor quality and low status among potential students. Lack of co-ordination between specialized technical or trade skills and high degree among the government, the private sectors and others stakeholders and scope of higher education for potential students to achieve more skills or degree is not clear (Kumar, 2015). In order to job prospects locally and abroad, VET curricula should be relevant to today's job market with direct linkages to industries skills and markets and related higher education or skills are needed today. In Bangladesh, there is no specialized vocational university or institutions where graduates could be taken more education for higher skill and status. In this study, it is revealed that it is an important barrier for potential student's enrolment in VE. This study also revealed that in Bangladesh, vocational student has demand to enter higher education. There are 88.4% students want to get admitted in higher education after completion of SSC (Voc), on the other hands, only 11.6% students want to seek or involve in related trade jobs or self-employment (Table 4.19).

Table 4.19: VE students' intention to admit in higher education

Comments	Frequency (n)	Percentage (%)	Cumulative percentage (%)
Want to get admitted in higher education	442	88.4	88.4
Want to seek/involve in related trade jobs/self-employment	58	11.6	100.0
Total	500	100.0	

4.8 Expenditure of Vocational Education

In context of Bangladesh, vocational trades are not highly equipped and resources oriented. All institutional introduced VE is achievable for mass people. Institute facilitates minimum facilities and supplies tools minimum for practical practicing. Fees and costs of course and materials related to trades are not so high for our economic context.

4.9 Importance of Vocational Education

In the human capital framework, knowledge and skills are specific forms of human capital. While general education is knowledge intensive, VTE are skills intensive (Becker, 1964). The VET enriches an individual with human capital providing pertinent job training and skills which eventually facilitates a student with the competence to build up self-employment and thereby encourage entrepreneurship. These self-employment and entrepreneurship play a pivotal role in reducing unemployment in populous country like Bangladesh where there are lots of unemployment people with GE and from where for lack of jobs every year a great number of people migrate overseas an unskilled manpower (WB, 2006).

The VE i.e. skill training may be alternative tool to prepare workforce as the competent of labor market, self-employment, entrepreneurship and migration for abroad as skilled workers. It can be the option to escape from traditional unproductive jobless education system and to reduce unemployment and underemployment.

Table 4.20: Importance of VE

Question	Student ($n=500$)		
	Opinion	Frequency (n)	Percentage (%)
VE is a crying need for developing our populous country Bangladesh	Yes	480	96.0
	No	20	4.0
	Total	500	100.0

4.10 As a Tool of Women Empowerment

Women are half of the nation. Educated and active income generating women can play same role of men to our family, society and national growth. Women whose are income generating, they can establish their opinion to make any decision in their family affairs and also their own matters but depending women cannot so. Since the VE make women able to active in income generating activities, and then reduce their dependency on family and can able to make decision about their own matters and family affairs. In this point, VE may be consider as the tool of women empowerment which is strongly justified by the student respondents (97.0%) is an important prospect of VE (Table 4.21).

Table 4.21: Importance of VE as a tool of women empowerment

Question	Student (<i>n</i> =500)		
	Opinion	Frequency (<i>n</i>)	Percentage (%)
Increasing skills of women by providing VE may be an instrument of women empowerment and gender discrepancy	Yes	485	97.0
	No	15	3.0
	Total	500	100.0

CHAPTER FIVE

Vocational Education and Its Present Status

5. Introduction

The present state of VE depends on various types of socio-economic factors which help to provide contemporary and quality VE that are demand oriented for job markets. In Bangladesh, only two decade aged VE faces many challenges and it has a lot of glorious prospects for building the nation by providing skilled manpower. At present, the VE offers two types of courses viz; basic trade course and certificate course. In the SSC level, it is certificate course for two years which is an entry point of VE. Moreover, SSC (Voc) course is trade based along with some common general subjects. There are thirty five trades offered but most of the institutions have only one to five trades. The GOB encourages VE to reduce drop-out situation from GE and to develop skilled manpower for labor market in nationally and internationally. Many steps and projects are taken by the GOB in recent years to enhance the enrollment in VE and for providing quality VE. As an education system of developing countries, the VE system of Bangladesh faces some problematic and prospective situation as like as other countries. In this chapter, it has been tried to examine how much better or worse conditions lead VE at present time in Bangladesh. In this study, it is discussed by the opinion of four types of respondents like students, respective guardians, Trade instructors and Head teachers/Principals of VE institutions and guardians and social leaders of the selected study area as stakeholders.

5.1 Present Condition of Vocational Education

Present condition of VE is not so good though the GOB strongly emphasized to develop the overall situation of VE. It is newly introduced course; in the SSC level and it is more attractive course in terms of time demand in the job market. In Bangladesh, there is a large number of skilled labor force shortage in various industry sectors, on the other hand, a large number of general educated graduates and drop-out students from GE are jobless for their unskilled manner. In this context, VE should be highly demandable course for all types of learners along with the drop-out students but situation is not so. The VE suffers low enrolment situation even it is less than ten percent of GE. The study tried to know the condition of VE from students, Trade instructors, Head teachers or Principals, guardians and social leaders. To do so, some questions were asked and these are explained as follows:

5.1.1 Level of Satisfaction of present status of Vocational Education

The respondents were asked about the satisfactory level of present condition of VE and the results are presented in table 5.1. Only around two-fifth students (38.2%) replied that VE is satisfactory and a few respondents (10.0% Head teachers, 17.5% Trade instructors and 16.2% guardians and social leaders) replied the same. Most of the guardians and social leaders (58.5%), around half of the Trade instructors (48.8%), more than one third of the students (44.8%) and a few of Head teachers (15.0%) replied that VE is moderately satisfactory. Most of the Head teachers (75.0%) replied that VE is not satisfactory (Table 5.1).

Table 5.1: Comments about present condition of VE

Opinion	Respondents			
	Students	Trade instructor	Head teacher /Principal	Guardians & Social leader
	Frequency (%)	Frequency (%)	Frequency (%)	Frequency (%)
Satisfactory	191 (38.2)	14 (17.5)	2 (10.0)	23 (16.2)
Moderate satisfactory	224 (44.8)	39 (48.8)	3 (15.0)	83 (58.5)
Not satisfactory	85 (17.0)	27 (33.8)	15 (75.0)	36 (25.4)
Total	500 (100.0)	80 (100.0)	20 (100.0)	142 (100.0)

The subject of analysis of this section was whether the present condition of VE is satisfactory or not. To assess the present condition of VE, the respondents replied in a trichotomous form as (i) satisfactory (ii) moderate satisfactory and (iii) not satisfactory. These indicators were subsequently categorized to the dichotomous form as (i) satisfactory and (ii) not satisfactory by merging the median category (Moderate satisfactory) with satisfactory category. To examine the relationships between the present condition of VE (response variable) and socio-demographic characteristics (explanatory variables) of the respondents, both qualitative and quantitative analysis were applied here. For statistical analyses, present condition of VE (satisfactory, coded 1 or not, coded 0) was made a binary response. The analyses were performed by using some statistical tools like bivariate analysis (χ^2 -test) to determine the association among the variables and binary logistic regression analysis (multivariate analysis) to determine the relative effects of the independent variables to the dependent variable.

The study has tried to find out the associations between the satisfaction level of present condition of VE and socio-demographic factors of the students. For bivariate analysis (χ^2 -test), the study used 10 socio-demographic variables (explanatory variables) with categories (shown in parenthesis): age (in years) (13-15, 1; 16-20, 2); education (in classes) (IX, 1; X, 2); gender (male, 1; female, 2); father's education (illiterate, 1; primary, 2; secondary, 3; higher secondary, 4; degree and above, 5); mother's education (illiterate, 1; primary, 2; secondary, 3; higher

secondary, 4;); father's occupation (service, 1; agriculture, 2; business, 3; others, 4); mother's occupation (housewife, 1; service, 2; others, 3); monthly income in taka (≤ 2000 , 1; 2001-5000, 2; 5001-10000, 3; 10001-15000, 4; 15001-20000, 5; > 20000 , 6); district (Rajshahi, 1; Bogra, 2; Natore, 3); institution types (Government, 1; MPO listed, 2; NGO owned, 3). The binary logistic regression model was fitted to identify the determinants of the satisfaction level of present condition of VE. In logistic regression analysis, satisfaction level of present condition of VE (Y) treated as the dependent variable and other variables (X_i , $i = 1, 2, 3 \dots 10$) treated as independent variables. In this model, the dependent variable (Y) is classified in the following manner:

$$\text{Model: } Y_1 = \begin{cases} 1 ; \text{present condition of VE is satisfactory} \\ 0 ; \text{Not satisfactory} \end{cases}$$

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analyses are presented in Table 5.2:

Table 5.2: Association between present condition of VE and socio-demographic factors of students

Independent factor (student)	Present condition of VE		χ^2 value	p-value
	Satisfactory (%)	Not satisfactory (%)		
Age (in years)				
13 - 15	247(82.6)	52(17.4)	0.081	0.776
16 - 20	168(83.6)	33(16.4)		
Gender				
Male	228(86.7)	35(13.3)	5.360	0.021
Female	187(78.9)	50(21.1)		
Class (Study level)				
IX (Nine)	239(83.6)	47(16.4)	0.152	0.697
X (Ten)	176(82.2)	38(17.8)		
Father's education				
Illiterate	38(73.1)	14(26.9)	10.894	0.051
Primary	177(86.8)	27(13.2)		
Secondary	126(78.8)	34(21.2)		
Higher secondary	31(86.1)	5(13.9)		
Degree and above	43(89.6)	5(13.9)		
Mother's education				
Illiterate	29(69.0)	13(31.0)	7.281	0.063
Primary	208(83.2)	42(16.8)		
Secondary	144(84.7)	26(15.3)		
Higher secondary	34(89.5)	4(10.5)		
Father's occupation				
Service	69(82.1)	15(17.9)	0.472	0.925
Agriculture	120(82.2)	26(17.8)		
Business	143(84.6)	26(15.4)		
Others	83(82.2)	18(17.8)		
Mother's occupation				
Housewife	390(83.3)	78(16.7)	0.797	0.671
Service	13(81.2)	3(18.8)		
Others	12(75.0)	4(25.0)		
Monthly family income (Tk)				
≤ 5000	217(82.2)	47(17.8)	1.176	0.882
5001 - 10000	95(81.9)	21(18.1)		
10001 - 15000	48(85.7)	8(14.3)		
15001 - 20000	30(88.2)	4(11.8)		
>20000	25(83.3)	5(16.7)		
District				
Rajshahi	206(82.7)	43(17.3)	8.440	0.015
Bogra	108(77.1)	32(22.9)		
Natore	101(91.0)	10(9.0)		
Institution's type				
Government	194(79.8)	49(20.2)	5.466	0.065
Non govt. MPO	171(84.2)	32(15.8)		
NGO	50(92.6)	4(7.4)		

Note: VE; Vocational Education, MPO; Monthly Payment Order, NGO; Non-Government Organization,

The results revealed that the respondent's gender, father's education, mother's education, district and institution types were statistically significantly associated with the present condition of VE. The female students were comparatively less satisfied than that of male students because of trade's diversification and the nature of trades. Female students normally admitted in some limited trades like dress making, food processing etc. Students whose fathers and mothers were illiterate, they were less satisfied than those parents are educated. Students of NGO directed institutions were highly satisfied than that of government and MPO listed institutions. The students of Natore district were comparatively more satisfied than that of others two districts (Table 5.2).

Results of the Multivariate Analysis

The results of the binary logistic regression model are presented in Table 5.3:

Table 5.3: Effects of socio-demographic factors on present condition of VE

Independent factor (Student)	β	S.E	Wald	<i>p</i> value	Odds ratio (OR)	95% CI for OR	
						Lower	Upper
Gender							
Male					1.00		
Female	-0.555	0.241	5.281	0.022	0.574	0.358	0.922
Father's education							
Illiterate					1.00		
Primary	0.446	0.443	1.014	0.314	1.563	0.655	3.725
Secondary	-0.295	0.450	0.430	0.512	0.745	0.308	1.797
Higher secondary	-0.043	0.662	0.004	0.948	0.958	0.262	3.503
Degree and above	0.422	0.674	0.392	0.531	1.525	0.407	5.717
Mother's education							
Illiterate					1.00		
Primary	0.522	0.450	1.344	0.246	1.685	0.698	4.069
Secondary	0.979	0.496	3.900	0.048	2.661	1.007	7.029
Higher secondary	1.268	0.740	2.933	0.087	3.554	0.833	15.170
District							
Rajshahi					1.00		
Bogra	-0.222	0.290	0.585	0.444	0.801	0.454	1.414
Natore	0.882	0.391	5.089	0.024	2.417	1.123	5.203
Institution's type							
Government					1.00		
Non govt. MPO	0.396	0.274	2.084	0.149	1.485	0.868	2.542
NGO	1.307	0.563	5.387	0.020	3.697	1.226	11.150

Note: VE; Vocational Education, MPO; Monthly Payment Order, NGO; Non-Government Organization,

The results revealed that the respondent's gender, mother's education, district and institutions types were statistically significant predictors for the present condition of VE. In this case, the mother's education, district, and institution type had a similar relationship with this present condition of VE. On the other hands, gender had an inverse relationship with this condition. The Students whose mother's education were secondary level and higher secondary level were 2.661times (OR = 2.661, 95% CI = 1.007-7.029) and 3.554 times (OR = 3.554, 95% CI = 0.833 – 15.170) more likely to be satisfied on the present condition of VE than those mothers who were illiterate. Students in Natore district were 2.417 times (OR = 2.417, 95% CI = 1.123 – 5.203) more likely to be satisfied on the present condition of VE than those of Rajshahi district. In case of institution types, the students of the NGO listed institutions were 3.697 times (OR = 3.697, 95% CI= 1.226 -11.150) more likely to be satisfied on the present condition of VE than the students in the government institutions. Female students were 0.574 times (OR = 0.574, 95% CI = 0.358 – 0.922) less likely to be satisfied on the present condition of VE than that of male students (Table 5.3).

5.1.2 Steps to develop Present Condition of Vocational Education

Various causes exist behind the not satisfactory level of VE. Causes of less enrolment represent the major parts to become satisfactory level not yet and absence of some qualitative and quantitative factors also play a role to consist VE not satisfactory level yet. It has been investigated among the respondents who were agreed with not satisfactory level of VE to find out what qualitative and quantitative factors can be able to develop VE as a competitive and time fitted education system. The study has revealed some qualitative factors or steps like training of teachers/instructors, infrastructure development, increasing monitoring, creating scope of higher education, financial and other supportive motivation, creating scope of exporting skilled

manpower, introducing new demand oriented trades, social advertising for awareness and expanding VE in the root level and some quantitative factors like increasing institutions, increasing classroom, increasing labs/instruments and increasing number of trades.

Table 5.4: Steps to develop present condition of Vocational Education

Comments	Students (n=85)		Trade instructor (n=27)		Head teacher /Princip (n=15)		Guardian & Social leader (n=119)		
	Yes	No	Yes	No	Yes	No	Yes	No	Do not know
Qualitative Steps									
Training of teachers/instructors	76 (89.4)	9 (10.6)	25 (92.6)	2 (7.4)	14 (93.3)	1 (6.7)	107 (89.9)	8 (6.7)	4 (3.4)
Infrastructure development	72 (84.7)	13 (15.3)	25 (92.6)	2 (7.4)	13 (86.7)	2 (13.3)	97 (81.5)	16 (13.4)	6 (5.0)
Increasing monitoring	76 (89.4)	9 (10.6)	26 (96.3)	1 (3.7)	14 (93.3)	1 (6.7)	112 (94.1)	5 (4.2)	2 (1.7)
Creating scope of higher education	78 (91.8)	7 (8.2)	25 (92.6)	2 (7.4)	13 (86.7)	2 (13.3)	116 (97.5)	2 (1.7)	1 (0.8)
Financial and other supportive motivation	78 (91.8)	7 (8.2)	26 (96.3)	1 (3.7)	15 (100.0)	0 (0.0)	108 (90.8)	9 (7.6)	2 (1.7)
Creating scope of exporting skill manpower	77 (90.6)	8 (9.4)	25 (92.6)	2 (7.4)	14 (93.3)	1 (6.7)	107 (89.9)	9 (7.6)	3 (2.5)
Introducing new demand oriented trades	76 (89.4)	9 (10.6)	25 (92.6)	2 (7.4)	14 (93.3)	1 (6.7)	116 (97.5)	1 (0.8)	2 (1.7)
Social advertising for awareness	76 (89.4)	9 (10.6)	25 (92.6)	2 (7.4)	14 (93.3)	1 (6.7)	109 (91.6)	6 (5.0)	4 (3.4)
Expanding VE in root level	78 (91.8)	7 (8.2)	24 (88.9)	3 (11.1)	13 (86.7)	2 (13.3)	110 (92.4)	6 (5.0)	3 (2.5)
Quantitative Steps									
Increasing student enrollment	75 (88.2)	10 (11.8)	21 (77.8)	6 (22.2)	15 (100.0)	0 (0.0)	112 (94.1)	5 (4.2)	2 (1.7)
Increasing institutions	78 (91.8)	7 (8.2)	21 (77.8)	6 (22.2)	13 (86.7)	2 (13.3)	106 (89.1)	12 (10.1)	1 (0.8)
Increasing classrooms	73 (85.9)	12 (14.1)	24 (88.9)	3 (11.1)	14 (93.3)	1 (6.7)	109 (91.6)	7 (5.9)	3 (2.5)
Increasing lab/instruments	77 (90.6)	8 (9.4)	26 (96.3)	1 (3.7)	14 (93.3)	1 (6.7)	111 (93.3)	6 (5.0)	2 (1.7)
Increasing number of trades	76 (89.4)	9 (10.6)	21 (77.8)	6 (22.2)	15 (100.0)	0 (0.0)	102 (85.7)	12 (10.1)	5 (4.2)

Note: VE: Vocational Education

5.1.2.1 Qualitative Steps

5.1.2.1.1 Training of Instructors

To provide quality education, quality teacher is a must. For preparing quality teaching staff training is very effective initiative. There is no alternative of training of teachers/instructors to

provide quality VE because of VE mostly depends on hands training and practical based besides theoretical learning. This study has revealed that almost all students (89.6%), Trade instructors (92.6%), Head teachers/Principals (93.3%) and guardians and social leaders (89.9%) whose were commented that the VE condition is not satisfactory emphasized to the training programs to develop the present conditions of VE (Table 5.4).

5.1.2.1.2 Infrastructure Development

Infrastructure is also the most important factors for all types of development. Educational development always demands sufficient infrastructures. Land, building, furniture, playground and others supportive constructions are always vital factors for providing quality education. The respondents whose were not satisfied, of them, almost all students (84.7%), Trade instructors (92.6%), Head teachers/Principals (86.7%) and guardian and social leader (81.5%) were agreed to develop infrastructure to provide satisfactory level of education (Table 5.4). Here also revealed that most of the respondents comment the same type.

5.1.2.1.3 Monitoring

Without monitoring all arrangement may be misguided and as a result output is nothing. Monitoring is a very useful and fruitful part of management and all institutional output and performance depends now a day on proper monitoring activities. Competent head of the institutions and their motivation to take all necessary steps to provide proper education, monitoring plays fruitful role in this context. In this study, all types of respondents comment the necessity of monitoring. Among the classified respondents almost all students (89.4%), Trade instructors (96.3%), Head teachers/Principals (93.3%) and guardians and social leaders (94.1%) were agreed with the increasing monitoring in management level for providing satisfactory VE (Table 5.4).

5.1.2.1.4 Scope of Higher Education

It is a natural intention of any meritorious or able person to achieve higher academic or professional degree. All educational systems deserve the scope of higher education. Though the VE is skill based and labor oriented mid-level workers provider but for increasing social dignity and personal efforts, scope of higher education is very necessary wing of it. All respondents were strongly supported it for satisfactory level of VE. Among the respondents almost all students (91.8%), Trade instructors (92.6%), Head teachers/Principals (86.7%) and guardians and social leaders (97.5%) were commented that scope of higher education is very necessary for satisfactory level of VE (Table 5.4).

5.1.2.1.5 Financial and Other Supportive Motivation

Drop-out children, girls and rural areas students faces many kinds' of financial and family problems. Financial support is very influential matter for staying schools and achieving skill in related trades for every student. In maximum stages, poor students cannot achieve quality knowledge and skills for want of sufficient financial support. Other supports also are helpful for any needy learners in context of VE. In this study, it is favored great attention from the respondents. All types of respondents were agreed with this opinion. Among them almost all students (91.8%), Trade instructors (96.3%), Head teachers/Principals (100.0%) and guardians and social leaders (90.8%) were being till support (Table 5.4).

5.1.2.1.6 Creating Scope of Exporting Skill Manpower

It is an influential factor for encouraging students to receive VE because of skilled labor force demand in foreign countries is known to all. Steps have been created for any kind of scope to export skilled manpower will be promoted enrollment of VE. Govt. and other providers should be ensured creating scope to export manpower as well as providing vocational skills. Among the

respondents almost all students (90.6%), Trade instructors (92.6%), Head teachers/Principals (93.3%) and guardians and social leaders (89.9%) were emphasized this matter to increase enrollment and to develop of VE (Table 5.4). It is an evident that all respondents were agreed with this comment and it is fruitful steps for developing present condition of VE.

5.1.2.1.7 Introducing New Demand Oriented Trades

Whether trades are not time befitted and demand oriented, students generally dislike admitting to these trades. So, maximum institutions should be remain available demand oriented trades and having scope to introduce new trades that are time befitted. It will be ensured the demand and supply of skilled manpower and create healthy condition of VE. In this study, all respondents were strongly agreed with this comment. There are almost all students (89.4%), Trade instructors (92.6%), Head teachers/Principals (93.3%) and guardians and social leaders (97.5%) were commented positive about this matter (Table 5.4).

5.1.2.1.8 Social Advertising for Awareness

In Bangladesh, it is newly introducing educational system and it faces some social dilemma and myth. For this reason, it faces some challenges for developing it conditions and status. In this context, social awareness may play a pivotal role to overcome this situation. For increasing social awareness, advertising in all forms might be very fruitful. Government and provider institutions separately and jointly can advertise to receive VE for it necessity and demand and can express its scope to get jobs in locally and abroad. The study exposed that social advertising for awareness is very important for developing present condition of VE. There are almost all students (89.4%), Trade instructors (92.6%), Head teachers/Principals (93.3%) and guardians and social leaders (91.6%) were supported it (Table 5.4).

5.1.2.1.9 Expanding Vocational Education in Root Level

Distance and poor communication are great obstacles for rural areas especially for girls and poor peoples. Girls are always discouraged by distances and poor communications. Families and other socio-cultural factors raise wall to go long distances for receiving education or others purpose for girls in the traditional society of Bangladesh. So, educational institutions should be available in root level and also for VE it should be the same. Drop-out girls bearing various causes can return educational ground only if institutions are available in their home ground. In this study, there are also almost all students (91.8%), Trade instructors (88.9%), Head teachers/Principals (86.7%) and guardians and social leaders (92.4%) were agreed about this comment for developing present conditions of VE (Table 5.4).

5.1.2.2 Quantitative Steps

5.1.2.2.1 Increasing Institutions

Graduates of VE are short supply in Bangladesh; on the other hand, graduates of general education are surplus. Industry sectors suffer lack of skilled manpower. A large number of general education graduates enter in job market in each year but not get suitable jobs as their educational qualification matching or bearing a workless life for a long time because of not fit for any jobs. Their education cannot help to get any jobs. On the other hand, various industry sectors do not get suitable work force or skilled persons to recruit for their industries. It is hard reality that in one side there are a large number of graduates are jobless and in another side a large number of shortage of skilled workforce. For this reason, to create and supply skilled manpower, VE is must and providing a large number of drop-out children as a skilled work force, VE is only fruitful way but present VE system does not provide the same needful number

of VE graduates. So, this is a great need of increasing vocational institutions for increasing graduates. The study revealed that all the respondents were also agreed to this comment. There are 91.8% students, 77.8% Trade instructors, 86.7% Head teachers/Principals and 89.1% guardians and social leaders were agreed to this comment (Table 5.4).

5.1.2.2.2 Increasing Classrooms

In this study, it has been asked to the respondents to develop present condition of VE, increasing classrooms whether need or not. Among the respondents, there are almost all students (85.9%), Trade instructors (88.9%), Head teachers (93.3%) and guardians and social leaders (91.6%) give opinion towards increasing classrooms for developing present condition of VE (Table 5.4).

5.1.2.2.3 Increasing Lab/Instruments

The study also revealed that for developing present condition of VE increasing labs/instruments is a must and most prior factor. Among the respondents, there are almost all students (90.6%), Trade instructors (96.3%), Head teachers/Principals (93.3%) and guardians and social leaders (93.3%) were agreed towards increasing labs/instruments for developing present condition of VE (Table 5.4).

5.1.2.2.4 Increasing Number of Trades

This is also a vital factor to develop present condition of VE. All respondents in this study were agreed with this comment. There are all Head teachers (100.0%) were commented positive to this and other respondents also were largely agreed with this comment. Among them there are 89.4% students, 77.8% Trade instructors and 85.7% guardians and social leaders were also emphasized to increase number of trades to cover all types of hand on and physical labor

oriented jobs which are included in vocational trades (Table 5.4). For creating dignity in society, many traditional professions like hair cutting, cobbling may be included in vocational trades.

5.2 Attitude towards SSC (Voc) Course

In this study, the researcher asked the respondents that as a type of VE, SSC (Voc) course is appropriate or not. There are 63.8% Trade instructors, 80.0% Head teachers and 57.7% guardians and social leaders were commented that it is appropriate program. But 17.6% guardians and social leaders were also commented that they do not know about this matter. Again 36.2% Trade instructors, 20.0% Head teachers/Principals and 24.6% guardians and social leaders were commented that SSC (Voc) course is not appropriate as a VE course (Table 5.5).

Table 5.5: Attitude towards of SSC (Voc) course

Comments	Trade instructor (n=80)		Head Teacher /Principal (n=20)		Guardian & Social leader (n=142)		
	Yes	No	Yes	No	Yes	No	Do not know
Is SSC (Voc) course enough and suitable?	51 (63.8)	29 (36.2)	16 (80.0)	4 (20.0)	82 (57.7)	35 (24.6)	25 (17.6)

Note: percentage shown in parenthesis

The respondents were also asked in various angles for clarifying the suitability of SSC (Voc) course. There are 82.5% Trade instructors, 75.0% Head teachers/Principals and 65.5% guardians and social leaders were exposed that SSC (Voc) course is enough according to social and political need in Bangladesh. It has been seen that there are 61.2% Trade instructors, 70.0% Head teachers and 45.8% guardians and social leaders were agreed that trades of SSC (Voc) course are appropriate for job markets. The study also found that there are 67.5% Trade instructors, 40.0% Head teachers/Principals and 45.8% guardians and social leaders were agreed to the theoretical and practical learning of SSC (Voc) course are good. In the context of question

of having skilled teachers or instructors in VE, there are 67.5% Trade instructors, 45.0% Head teachers/Principals and 58.5% guardians and social leaders were commented that it is positive and in the context of question of having sufficient labs/instruments and infrastructure, there are 23.8% Trade instructors, 25.0% Head teachers/Principals and 21.8% guardians and social leaders were agreed with this comment (Table 5.6).

Table 5.6: How appropriate SSC (Voc) course as a Vocational Education

Comments	Trade instructor (n=80)		Head teacher /Principal (n=20)		Guardian & Social leader (n=142)		
	Yes	No	Yes	No	Yes	No	Do not know
SSC(Voc) is consistent with social and state need	66 (82.5)	14 (17.5)	15 (75.0)	5 (25.0)	93 (65.5)	28 (19.7)	21 (14.8)
Trades of VE are appropriate for job market	49 (61.2)	31 (38.8)	14 (70.0)	6 (30.0)	65 (45.8)	35 (24.6)	42 (29.6)
Theoretical and practical learning is good	54 (67.5)	26 (32.5)	8 (40.0)	12 (60.0)	65 (45.8)	46 (32.4)	31 (21.8)
Have any skilled teacher/ instructor in VE	54 (67.5)	26 (32.5)	9 (45.0)	11 (55.0)	83 (58.5)	44 (31.0)	15 (10.6)
Have sufficient labs/instrument and infrastructure of the institutions	19 (23.8)	61 (76.2)	5 (25.0)	15 (75.0)	31 (21.8)	94 (66.2)	17 (12.0)

Note: percentage shown in parenthesis

In this section, the researcher wants to discuss that all said indicators of attitudes towards VE were supported by the respondents. The subject of analysis of this section was indicators of attitudes towards VE. To assess the attitudes towards VE, 5 related indicators were considered (Table 5.6). The respondents were answered in a dichotomous form as (i) Yes (coded 1) and (ii) No (coded 0).

Here the indicators have been discussed one after one. The discussion performed some statistical analysis like bivariate analysis (χ^2 test) to determine the association among the variables and binary logistic regression analysis (multivariate analysis) to determine the relative effect of the independent variables to the dependent variables. To examine the relationship between the indicators of attitudes (response variables) and socio-demographic characteristics (explanatory

variables) of the respondents, both qualitative and quantitative analyses were applied here. For statistical analyses, each indicator was made a binary response. Bivariate analysis (χ^2 test) was used to determine the association between the indicators of attitudes of VE and socio-demographic factors. In this study, bivariate and multivariate analyses were occurred for the Trade instructors and guardians and social leaders but for the Head teachers these did not occur due to small sample size. The study used 6 socio-demographic (explanatory) variables with categories (shown in parenthesis) in the case of Trade instructors and 3 (three) socio-demographics (explanatory) variables for guardians and social leaders respectively: age (in years) (20-39, 1; 40-59, 2); gender (male, 1; female, 2); education (HSC/equivalent, 1; Degree/equivalent, 2; Masters/equivalent, 3); teaching experiences (1-12 years, 1; > 12 years, 2); district (Rajshahi, 1; Bogra, 2; Natore, 3); institutions (Government, 1; MPO listed and NGO owned, 2) and age in years (18-39, 1; >= 40, 2); gender (male, 1; female, 2); type of respondent (guardian, 1; social leaders, 2) respectively. The binary logistic regression models were fitted for every indicator of attitudes separately to identify the determinants of indicators of attitudes among the respondents. In logistic regression analysis, indicators of attitudes (Y) is treated as the dependent variable and other variables (X_i , $i = 1, 2, 3, \dots$) treated as independent variables. In this model, the dependent variables (Y_j , $j = 1, 2, 3, 4, 5$) are classified in the following manner:

$$\text{Model 1: } Y_1 = \begin{cases} 1 ; \text{ SSC (Voc)course is consistent with social and country need,} \\ 0 ; \text{ Otherwise.} \end{cases}$$

$$\text{Model 2: } Y_2 = \begin{cases} 1 ; \text{ Trades are appropriate for job market,} \\ 0 ; \text{ Otherwise} \end{cases}$$

$$\text{Model 3: } Y_3 = \begin{cases} 1 ; \text{ Theoretical and practical trade learning is good.} \\ 0 ; \text{ Otherwise.} \end{cases}$$

Model 4: $Y_4 = \begin{cases} 1 ; \text{Haveskilled teacher and instructor in VE,} \\ 0 ; \text{Otherwise.} \end{cases}$

Model 5: $Y_5 = \begin{cases} 1 ; \text{Havesufficient labs / instruments and inf rastructure in VE,} \\ 0 ; \text{Otherwise} \end{cases}$

5.2.1 Indicator 1: SSC (Voc) Course is Consistent with Social and country Needs

Most of the respondents among all types were agreed that SSC (Voc) course are consistent with the social and country need.

In the Case of Head teachers/Principals

There are 75.0% Head teachers were agreed about the consistency of SSC (voc) course which means that there is no significance different about the opinions of Head teachers/Principals in all types of background characteristics (Table 5.6).

In the Case of Trade instructors

In this context, it has been tried to show the associations between indicator 1 (SSC (Voc) course is consistent with social and country need) of attitudes towards VE and socio-demographic characteristics of the trade instructors.

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analysis is presented in Table 5.7:

Table 5.7: Associations between indicator 1 and socio-demographic factors of trade instructor ($n = 80$)

Independent factors (Trade instructor)	SSC (Voc) course is consistent with social and state need		χ^2 value or Fisher exact F-test	p - value
	Yes (%)	No (%)		
Age (in years)				
20 - 39	38(82.6)	8(17.4)	0.001	0.976
40 - 59	28(82.4)	6(17.6)		
Gender				
Male	53(80.3)	13(19.7)	1.261	0.261
Female	13(92.9)	1(7.1)		
Education				
HSC/equivalent	39(88.6)	5(11.4)	7.765	0.021
Degree/equivalent	14(87.5)	2(12.5)		
Masters/equivalent	10(58.8)	7(41.2)		
Teaching exp (in years)				
1 – 12	33(80.5)	8(19.5)	0.236	0.627
>12	33(84.6)	6(15.40)		
District				
Rajshahi	30(85.7)	5(14.3)	3.438	0.179
Bogra	17(70.8)	7(29.2)		
Natore	19(90.5)	2(9.5)		
Institution's type				
Government	20(90.9)	2(9.1)	1.486	0.223
MPO listed and NGO	46(79.3)	12(20.7)		

Note: MPO: Monthly Payment Order, NGO: Non-Government Organization, HSC: Higher Secondary School Certificate, VE: Vocational Education

The results of bivariate analysis revealed that the respondent's education were statistically significantly associated with indicator I only. In this study, it has been seen that the Trade instructors whose educational qualification are HSC/equivalent and degree/equivalent were comparatively more agreed with the indicator 1 than masters/equivalent degree holders (Table 5.7).

Results of the Multivariate Analysis

The results of the binary logistic regression model are presented in Table 5.8:

Table 5.8: Effects of socio-demographic factors of Trade instructor on indicator 1

Independent factor (Trade instructor)	β	S.E	Wald	<i>p</i> value	Odds ratio (OR)	95% CI for OR	
						Lower	Upper
Education							
HSC/equivalent					1.00		
Degree/equivalent	-0.108	0.893	0.015	0.904	0.897	0.156	5.164
Masters/equivalent	-1.697	0.684	6.150	0.013	0.183	0.048	0.701

Note: VE: Vocational Education

In logistic regression analysis, the respondent's education was statistically significant predictor for this indicator. In this case, respondent's education had an inverse relationship with this indicator. In this indicator, respondents whose educational qualification is masters/equivalent were 0.183 times (OR = 0.183, 95% CI = 0.048 -0.701) less likely to be agreed on the indicator 1 than those respondents whose education level were HSC/equivalent (Table 5.8).

In the Case of Guardian and Social leaders

In this context, the researcher has tried to show the association between indicator 1 of attitudes towards VE and socio-demographic characteristics of the guardians and social leaders.

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analysis is presented in Table 5.9:

Table 5.9: Associations between Indicator 1 and socio-demographic factors of guardians and social leaders

Independent factors (Guardian and Social leader)	Consistency of SSC (Voc) course with social and state need		χ^2 value	<i>p</i> - value
	Yes (%)	No (%)		
Age (in years)				
18 - 39	44(60.3)	29(30.9)	1.811	0.178
≥ 40	49(71.0)	20(29.0)		
Gender				
Male	64(65.3)	34(34.7)	0.005	0.944
Female	29(65.9)	15(34.1)		
Type of respondents				
Guardians	35(68.6)	16(31.4)	0.346	0.556
Social leaders	58(63.7)	33(36.3)		

The results of bivariate analysis revealed that there is no socio-demographic characteristics of the respondents were statistically significantly associated with indicator I. It has been seen that most of the respondents of all age categories, gender and subtype of respondents were agreed with this indicator (Table 5.9).

5.2.2 Indicator 2: Trades are Appropriate for Job Markets

Most of the respondents among all types were agreed that Trades are appropriate for job markets.

In the Case of Head teachers/Principals

Most of the Head teachers (70.0%) were agreed that trades are appropriate for job markets which mean that there is no significance different about the opinions of Head teachers/Principals in all types of background characteristics (Table 5.6).

In the Case of Trade instructors

In this context, the researcher has tried to show the association between the indicator 2 (Trades are appropriate for job markets) of attitudes towards VE and socio-demographic characteristics of the trade instructors.

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analysis is presented in Table 5.10:

Table 5.10: Associations between indicator 2 and socio-demographic factors of Trade instructor ($n = 80$)

Independent factors (Trade instructor)	Trades are appropriate for job markets		χ^2 value	p - value
	Yes (%)	No (%)		
Age (in years)				
20 - 39	28(60.9)	18(39.1)	0.007	0.935
40 - 59	21(61.8)	13(38.20)		
Gender				
Male	39(59.1)	27(40.9)	0.741	0.389
Female	10(71.4)	4(28.60)		
Educational qualification				
HSC/equivalent	27(61.4)	17(38.6)	0.051	0.975
Degree/equivalent	10(62.5)	6(37.5)		
Masters/equivalent	10(58.8)	7(41.2)		
Teaching exp (in years)				
1 – 12	24(58.5)	17(41.5)	0.261	0.610
>12	25(64.1)	14(35.9)		
District				
Rajshahi	17(48.6)	18(51.4)	7.752	0.021
Bogra	14(58.3)	10(41.7)		
Natore	18(86.7)	3(14.3)		
Institution's type				
Government	13(59.1)	9(40.9)	0.060	0.807
MPO listed and NGO	36(62.1)	22(37.9)		

Note: MPO: Monthly Payment Order, NGO: Non-Government Organization, HSC: Higher Secondary School Certificate, VE: Vocational Education

The results of bivariate analysis revealed that the respondent's district were statistically significantly associated with the indicator 2. In this study it has been seen that trade instructors of Natore district were more agreed than that of Bogra and Rajshahi districts consequently (Table 5.10).

Results of the Multivariate Analysis

The results of the binary logistic regression model are presented in Table 5.11:

Table 5.11: Effects of socio-demographic factors of Trade instructor on indicator 2

Independent factor (Trade instructor)	β	S.E	Wald	<i>p</i> value	Odds ratio (OR)	95% CI for OR	
						Lower	Upper
District							
Rajshahi					1.00		
Bogra	0.394	0.535	0.542	0.462	1.482	0.520	4.227
Natore	1.849	0.709	6.793	0.009	6.353	1.582	25.517

In logistic regression analysis, respondent's district was statistically significant predictors for this indicator. In this case, respondent's district had a similar relationship with this indicator. Trade instructors of Natore district were 6.353 times (OR = 6.353, 95% CI = 1.582- 25.517) more likely to be agreed with this indicator than those of Rajshahi district (Table 5.11).

In the Case of Guardian and Social leaders

In this context, the researcher has tried to show the associations between the indicator 2 (Trades are appropriate for job markets) of attitudes towards VE and socio-demographic characteristics of the guardians and social leaders.

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analyses are presented in Table 5.12:

Table 5.12: Associations between indicator 2 and socio-demographic factors of guardians and social leaders (*n* = 142)

Independent factors (Guardian and Social leader)	Trades are appropriate for job markets		χ^2 value	<i>p</i> - value
	Yes (%)	No (%)		
Age (in years)				
18 - 39	39(53.4)	34(46.6)	3.542	0.060
≥ 40	26(37.7)	43(62.3)		
Gender				
Male	44(44.9)	54(55.1)	0.098	0.754
Female	21(47.7)	23(52.3)		
Type of respondents				
Guardians	27(52.9)	24(47.1)	1.647	0.199
Social leaders	38(41.8)	53(58.2)		

The results of bivariate analysis revealed that respondent's age was statistically significantly associated with the indicator 2. In this study it has been seen that the respondents whose ages are 18-39 are more agreed with this indicator than those whose ages are 40 and above (Table 5.12).

Results of the Multivariate Analysis

The results of the binary logistic regression model are presented in Table 5.13:

Table 5.13: Effects of socio-demographic factors guardians and social leaders on indicator 2

Independent factor (Guardian and Social leader)	β	S.E	Wald	<i>p</i> value	Odds ratio (OR)	95% CI for OR	
						Lower	Upper
Age (in years)							
18 - 39					1.00		
≥ 40	-0.640	0.342	3.511	0.061	0.527	0.270	1.030

In logistic regression analysis, respondent's ages were statistically significant predictors for this indicator. In this case, respondent's age had an inverse relationship with this indicator. Respondents whose ages are 40 years and above were 0.527 times (OR = 0.527, 95% CI = 0.270 – 1.030) less likely to be agreed than those whose ages are 18-39 years (Table 5.13).

5.2.3 Indicator 3: Theoretical and Practical Learning is good

Among the respondents most of the Trade instructors were agreed that theoretical and practical learning is good but most of the Head teachers and guardians and social leaders were disagreed with this indicator.

In the Case of Head teachers/Principals

There are most of the Head teachers (60.0%) were disagreed with the indicator 3 (Theoretical and practical learning is good) which means that there is significance different about the opinions of Head teachers/Principals in all types of background characteristics (Table 5.6).

In the Case of Trade instructors

In this context, the researcher has tried to show the associations between the indicator 3 (Theoretical and practical learning is good) of attitudes towards VE and socio-demographic characteristics of the Trade instructors.

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analysis is presented in Table 5.14:

Table 5.14: Association between indicator 3 and socio-demographic factors of Trade instructor ($n = 80$)

Independent factors (Trade instructor)	Theoretical and practical learning is good		χ^2 value	<i>p</i> - value
	Yes (%)	No (%)		
Age (in years)				
20 - 39	29(64.4)	16(35.6)	0.739	0.390
40 - 59	25(73.5)	9(26.5)		
Gender				
Male	42(64.6)	23(35.4)	2.371	0.124
Female	12(85.7)	2(14.3)		
Educational qualification				
HSC/equivalent	31(72.1)	12(27.9)	0.516	0.773
Degree/equivalent	10(62.5)	6(37.5)		
Masters/equivalent	12(70.6)	5(29.4)		
Teaching exp (in years)				
1 – 12	26(63.4)	15(36.6)	0.962	0.327
>12	28(73.7)	10(26.3)		
District				
Rajshahi	16(47.1)	18(52.9)	14.635	0.001
Bogra	18(75.0)	6(25.0)		
Natore	20(95.2)	1(4.8)		
Institution's type				
Government	13(59.1)	9(40.9)	1.210	0.271
MPO listed and NGO	41(71.9)	16(28.1)		

Note: MPO: Monthly Payment Order, NGO: Non-Government Organization, HSC: Higher Secondary School Certificate, VE: Vocational Education

The results of bivariate analysis revealed that the respondent's district were statistically significantly associated with the indicator 3. In this study it has been seen that the Trade instructors of Natore district were more agreed with this indicator than other two districts.

Between other two districts, the Trade instructors of Rajshahi were very less agreed than those of Bogra (Table 5.14).

In the Case of Guardian and Social leaders

In this context, the researcher has tried to show the associations between the indicator 3 of attitudes towards VE and socio-demographic characteristics of the guardians and social leaders.

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analysis is presented in Table 5.15:

Table 5.15: Association between indicator 3 and socio-demographic factors of guardians and social leaders ($n = 142$)

Independent factors (Guardian and Social leader)	Theoretical and practical learning is good		χ^2 value	p - value
	Yes (%)	No (%)		
Age (in years)				
18 - 39	31(42.5)	42(57.5)	0.663	0.416
≥ 40	34(49.3)	35(50.7)		
Gender				
Male	44(44.9)	54(55.1)	0.098	0.754
Female	21(47.7)	23(52.3)		
Type of respondents				
Guardians	32(62.7)	19(37.3)	9.234	0.002
Social leaders	33(36.3)	58(63.7)		

The results of bivariate analysis revealed that respondent's subtype was statistically significantly associated with the indicator 3. In this study it has been seen that guardians were more agreed with the indicator 3 than social leaders (Table 5.15).

Results of the Multivariate Analysis

The results of the binary logistic regression model are presented in Table 5.16:

Table 5.16: Effects of socio-demographic factors of guardians and social leaders on indicator 3

Independent factor (Guardian and Social leader)	β	S.E	Wald	p value	Odds ratio (OR)	95% CI for OR	
						Lower	Upper
Type of respondents							
Guardians					1.00		
Social leaders	-1.085	0.363	8.961	0.003	0.338	0.166	0.688

In logistic regression analysis, respondent's subtype was statistically significant predictors for this indicator. In this case, respondent's subtype had an inverse relationship with this indicator. Respondent's subtype social leaders were 0.338 times (OR = 0.338, 95% CI = 0.166 -0.688) less likely to be agreed with this indicator than subtype guardians (Table 5.16).

5.2.4 Indicator 4: Having Skilled Instructor in Vocational Education

Among the respondents most of the Trade instructors were agreed that having skilled instructors in VE but most of the Head teachers and guardians and social leaders were disagreed with this indicator.

In the Case of Head teachers/Principals

In the case of Head teachers there are 55.0% respondents are disagreed about having skilled instructors in VE which means that there is significance different about the opinions of Head teachers/Principals in all type background characteristics (Table 5.6).

In the Case of Trade instructors

In this context, the researcher has tried to show the association between the indicator 4 (Having skilled instructor in VE) of attitudes towards VE and socio-demographic characteristics of the Trade instructors.

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analysis is presented in Table 5.17:

Table 5.17: Association between indicator 4 and socio-demographic factors of Trade instructor ($n = 80$)

Independent factors (Trade instructor)	Having skilled teacher/instructor in VE		χ^2 value	p - value
	Yes (%)	No (%)		
Age (in years)				
20 - 39	30(65.2)	16(34.8)	0.257	0.612
40 - 59	24(70.6)	10(29.4)		
Gender				
Male	44(66.7)	22(33.3)	0.119	0.730
Female	10(71.4)	4(28.6)		
Educational qualification				
HSC/equivalent	35(79.5)	9(20.5)	5.536	0.063
Degree/equivalent	9(56.2)	7(43.8)		
Masters/equivalent	9(52.9)	8(47.1)		
Teaching exp (in years)				
1 – 12	26(63.4)	15(36.6)	0.640	0.424
>12	28(71.8)	11(28.2)		
District				
Rajshahi	23(65.7)	12(34.3)	8.455	0.015
Bogra	12(50.0)	12(50.0)		
Natore	19(90.5)	2(9.5)		
Institution's type				
Government	17(77.3)	5(22.7)	1.321	0.250
MPO listed and NGO	37(63.8)	21(36.2)		

Note: MPO: Monthly Payment Order, NGO: Non-Government Organization, HSC: Higher Secondary School Certificate, VE: Vocational Education

The results of bivariate analysis revealed that the respondent's education and district were statistically significantly associated with the indicator 4. In this study it has been seen that the Trade instructors whose education level are HSC/equivalent (Diploma) were more agreed than those whose education level were Degree/equivalent and Masters/equivalent. It is also revealed that according to education level low to high, level of agreement of Trade instructors were decreased for this indicator (Table 5.17).

Results of the Multivariate Analysis

The results of the binary logistic regression model are presented in Table 5.18:

Table 5.18: Effects of socio-demographic factors of Trade instructors on indicator 4

Independent factor (Trade instructor)	β	S.E	Wald	<i>p value</i>	Odds ratio (OR)	95% CI for OR	
						Lower	Upper
Education							
HSC/equivalent					1.00		
Degree/equivalent	-1.068	0.664	2.587	0.108	0.344	0.094	1.263
Masters/equivalent	-1.020	0.705	2.090	0.148	0.361	0.090	1.437
District							
Rajshahi					1.00		
Bogra	-0.226	0.634	0.128	0.721	0.797	0.230	2.761
Natore	1.658	0.849	3.812	0.051	5.250	0.994	27.740

In logistic regression analysis, respondent's district was statistically significant predictors for this indicator. In this case, respondent's district had a similar relationship with this indicator. On the other hands, respondent's education had an inverse relationship with this indicator. The respondents of Natore district were 5.250 times (OR = 5.250, 95% CI = 0.994-27.740) more likely to be agreed with this indicator than those of Rajshahi district (Table 5.18).

In the Case of Guardian and Social leaders

In this context, the researcher has tried to show the associations between the indicator 4 (Having skilled instructors in VE) of attitudes towards VE and socio-demographic characteristics of the guardians and social leaders.

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analysis is presented in Table 5.19:

Table 5.19: Associations between indicator 4 and socio-demographic factors of guardians and social leaders ($n = 142$)

Independent factors (Guardian and Social leader)	Having skilled teacher/instructor in VE		χ^2 value	p - value
	Yes (%)	No (%)		
Age (in years)				
18 - 39	44(60.3)	29(39.7)	0.206	0.650
≥ 40	39(56.5)	30(43.5)		
Gender				
Male	51(52.0)	47(48.0)	5.351	0.021
Female	32(72.7)	12(27.3)		
Type of respondents				
Guardians	39(76.5)	12(23.5)	10.641	0.001
Social leaders	44(48.5)	47(51.6)		

Note: VE: Vocational Education

The results of bivariate analysis revealed that respondent's gender and subtype was statistically significantly associated with the indicator 4. In this study it has been seen that female respondents were more agreed than male respondent with this indicator. It has been also seen that 76.50% guardians were more agreed than social leaders in this respect (Table 5.19).

Results of the Multivariate Analysis

The results of the binary logistic regression model are presented in Table 5.20:

Table 5.20: Effects of socio-demographic factors of guardians and social leaders on indicator 4

Independent factor (Guardian and Social leader)	β	S.E	Wald	p value	Odds ratio (OR)	95% CI for OR	
						Lower	Upper
Gender							
Male					1.00		
Female	1.007	0.411	5.993	0.014	2.737	1.222	6.128
Type of respondents							
Guardians					1.00		
Social leaders	-1.322	0.401	10.852	0.001	0.267	0.121	0.585

In logistic regression analysis, respondent's gender and subtype was statistically significant predictors for this indicator. In this case, respondent's gender had a similar relationship with this

indicator. On the other hands, respondent's subtype had an inverse relationship with this indicator. The female respondents were 2.737 times (OR = 2.737, 95% CI = 1.222- 6.128) more likely to be agreed with this indicator than male respondents. Respondent's subtype social leaders were 0.267 times (OR = 0.267, 95% CI = 0.121- 0.585) less likely to be agreed with this indicator than subtype guardians (Table 5.20).

5.2.5 Indicator 5: Having Sufficient Labs/Instruments and Infrastructure of the Institutions

Most of the respondents of all types were disagreed that having sufficient labs/instruments and infrastructure of the vocational institutions.

In the case of Head teachers/Principals

Most of the Head teachers (75.0%) were disagreed with the indicator 5 (Having sufficient labs/instruments and infrastructure of the institutions) of attitudes which means that there is significance different about the opinions of Head teachers/Principals in all types of background characteristics (Table 5.6).

In the Case of Trade instructors

In this context, the researcher has tried to show the associations between the indicator 5 of attitudes towards VE and socio-demographic characteristics of the Trade instructors.

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analysis is presented in Table 5.21:

Table 5.21: Associations between indicator 5 and socio-demographic factors of Trade instructors ($n = 80$)

Independent factors (Trade instructor)	Having sufficient labs/instruments and infrastructure of the institutions		χ^2 value	p - value
	Yes (%)	No (%)		
Age (in years)				
20 - 39	10(21.7)	36(78.3)	0.242	0.623
40 - 59	9(26.5)	25(73.5)		
Gender				
Male	17(25.8)	49(74.2)	0.839	0.360
Female	2(14.3)	12(85.7)		
Educational qualification				
HSC/equivalent	10(22.7)	34(77.3)	0.474	0.789
Degree/equivalent	5(31.2)	11(68.8)		
Masters/equivalent	4(23.5)	13(76.5)		
Teaching exp (in years)				
1 – 12	9(22.0)	32(78.0)	0.150	0.698
>12	10(25.6)	29(74.4)		
District				
Rajshahi	5(14.3)	30(85.7)	17.812	0.000
Bogra	2(8.3)	22(91.7)		
Natore	12(57.1)	9(42.9)		
Institution's type				
Government	6(27.3)	16(72.7)	0.208	0.648
MPO listed and NGO	13(22.4)	45(77.6)		

Note: MPO: Monthly Payment Order, NGO: Non-Government Organization, HSC: Higher Secondary School Certificate, VE: Vocational Education

The results of bivariate analysis revealed that the respondent's district were statistically significantly associated with the indicator 5. In this study it has been seen that major portion of the Trade instructors of Natore district were agreed with this indicator but a few number of Trade instructors of Bogra and Rajshahi district were agreed with this indicator (Table 5.21).

Results of the Multivariate Analysis

The results of the binary logistic regression model are presented in Table 5.22:

Table 5.22: Effects of socio-demographic factors of Trade instructors on indicator 5

Independent factor (Trade instructor)	β	S.E	Wald	<i>p</i> value	Odds ratio (OR)	95% CI for OR	
						Lower	Upper
District							
Rajshahi					1.00		
Bogra	-.606	0.882	0.472	0.492	0.545	0.097	3.076
Natore	2.079	0.654	10.108	0.001	8.000	2.220	28.828

In logistic regression analysis, only respondent's district were statistically significant predictors for this indicator. In this case, respondent's district had a similar relationship with this indicator. In this indicator, respondents of Natore district were 8.00 times (OR = 8.000, 95% CI = 2.220 – 28.828) more likely to be agreed with this indicator than those of Rajshahi district (Table 5.22).

In the Case of Guardian and Social Leaders

In this context, the researcher has tried to show the associations between the indicator 5 of attitudes towards VE and socio-demographic characteristics of the guardians and social leaders.

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analyses are presented in Table 5.23:

Table 5.23: Association between indicator 5 and socio-demographic factors of guardians and social leaders ($n = 142$)

Independent factors (Guardian and Social leader)	Having sufficient labs/instruments and infrastructure of the institutions		χ^2 value	<i>P</i> - value
	Yes (%)	No (%)		
Age (in years)				
18 – 39	18(24.7)	55(75.3)	0.703	0.402
>= 40	13(18.8)	56(81.2)		
Gender				
Male	17(17.3)	81(82.7)	3.726	0.054
Female	14(31.8)	30(68.2)		
Type of respondents				
Guardians	19(37.3)	32(62.7)	11.094	0.001
Social leaders	12(13.2)	79(86.8)		

The results of bivariate analysis revealed that respondent's gender and subtype were statistically significantly associated with the indicator 5. In this study it has been seen that the female respondents were more agreed with the indicator 5 than male indicator and only a few number of male and female respondent were agreed with this indicator. It has been also seen that a few number of social leaders were agreed with this indicator which is less than guardian's respondents (Table 5.23).

Results of the Multivariate Analysis

The results of the binary logistic regression model are presented in Table 5.24:

Table 5.24: Effects of socio-demographic factors of guardians and social leaders on indicator 5

Independent factor (Guardian and Social leader)	β	S.E	Wald	<i>p</i> value	Odds ratio (OR)	95% CI for OR	
						Lower	Upper
Gender							
Male					1.00		
Female	0.922	0.445	4.290	0.038	2.514	1.051	6.017
Type of respondents							
Guardians					1.00		
Social leaders	-1.438	0.436	10.874	0.001	0.237	0.101	0.558

In logistic regression analysis, respondent's gender and subtype was statistically significant predictors for this indicator. In this case, respondent's gender had a similar relationship with this indicator. On the other hand, respondent's subtype had an inverse relationship with this indicator. The female respondents were 2.514 times (OR = 2.514, 95% CI = 1.051-6.017) more likely to be agreed with this indicator than male respondents. Here, the social leaders were 0.237 times (OR = 0.237, 95% CI = 0.101-0.558) less likely to be agreed with this indicator than guardians (Table 5.24).

5.3 Attitude of Students towards SSC (Voc) Course

In this study the researcher justified the attitudes towards VE in the eyes of students view by asking various related questions of learning, skills, infrastructure, jobs' scope and management. The researcher has received the comments that there were 99.6% students has expressed that the techniques that they learn in SSC (Voc) course are useful in their daily life. That means that the vocational course is time befitted because it is obviously related to daily practical life. There were 98.8% students feel good about content of SSC (Voc) course; it is meant that the syllabus and study content is suitable for them. They could not feel any uneasiness or hardness about the content of the course because there were 85.0% students are commented that they understand the content clearly in the class rooms. After completion of SSC (Voc) course, there are 91.2% students were agreed that they have achieved enough knowledge about their trade that they could be able to perform as a skill worker in their own trade. It is exposed that trade learning is enough and it is suitable for job markets. In this study the researcher also asked the students for more clear perception about their trade learning and hardness of subjects that they feel whether any difficulties or hardness in one or more subjects that teach in their class or course, there are 67.4% students were disagreed with that comments that means that there is no subject in the SSC (Voc) course are so hard or difficult that is not understandable for students. As a work based education SSC (Voc) course ensured or being fruitful path of learner's professional life as an employee in related industry sectors; in this context, there are 98.4% students were agreed about this comment and also 95.2% were agreed about the dignity of professions or jobs which getting after completion of SSC (Voc) course (Table 5.25).

Table 5.25: Indicator of attitudes of students towards SSC (Voc) course ($n = 500$)

Indicator	Opinion ($n=500$)	
	Yes	No
Techniques that students learn in VE are useful in daily life	498(99.6)	2(0.4)
Students feel good about content that study in VE	494(98.8)	6(1.2)
Understanding of study content clearly that teach in VE class rooms	425(85.0)	75(15.0)
After completion of SSC, students can able to perform as a skill worker in own trade	456(91.2)	44(8.8)
One or more subjects are very difficult for students that teach in VE class or course	163(32.6)	337(67.4)
As a work based education VE insured learner's professional life as an employee.	492(98.4)	8(1.6)
Students feel honored for that kinds of jobs which getting after completion the SSC (Voc)	476(95.2)	24(4.8)
Students feel anxiety for limited job scope in vocational profession	222(44.4)	278(55.6)
Students feel less income in vocational profession	121(24.2)	379(75.8)
Students feel having vast scope of employment in abroad after completion the VE	486(97.2)	14(2.8)
Students feel expense of VE is more than general education	157(31.4)	343(68.6)

Note: Percentage shown in parenthesis VE: Vocational Education

In this study the researcher also collected the opinion from the student about any anxiety for limited jobs scope of VE graduates. There are 55.6% students said that they were not feel any anxiety for this and the researcher also collect the opinion about low income of VE professional, it is exposed that 75.8% students feel that income of VE professional is not low position. That means the income of vocational profession and scope of jobs also exists in satisfactory level. The students opinion also revealed that there are vast scope of employment are always waiting in abroad for vocational graduates and sometimes it is possible after completion of SSC (voc) course. In this context there are 97.2% students were agreed about this idea. The comment about expense of VE whether it is more than general education or not, there are 68.6% students were commented that it is not more than general education (Table 5.25). It is revealed that according to student's perception, the SSC (Voc) course is strongly appropriate for Bangladesh and as well as reality of job markets.

5.4 Apprenticeship of Vocational Education

All work based education demand apprenticeship for student's quality learning. How to apply practical learning in workplace, apprenticeship is the right task/system for its application. Learner may be getting a vast chance to show his performance and skill by the apprenticeship system. In this study, the researcher has tried to know the opinion of respondents about the need of apprenticeship in VE. It is exposed that almost all Trade instructors (95.0%), Head teachers/Principals (100.0%) and guardians and social leaders (81.0%) were commented that there must be introduced apprenticeship in VE (Table 5.26).

Table 5.26: Need of apprenticeship in vocational trade course

Opinion	Trade instructor (n=80)		Head teacher /Principal (n=20)		Guardian & Social leader (n=142)		
	Yes	No	Yes	No	Yes	No	Do not know
Should introduce apprenticeship in vocational trade courses	76 (95.0)	4 (5.0)	20 (100.0)	0 (0.0)	115 (81.0)	3 (2.1)	24 (16.9)

Note: Percentage shown in parenthesis

5.5 Learning Status of Vocational Students

Learning status of VE is not quite satisfactory. There are most of the students (73.2%) said that their expertise is sufficient for doing a trade jobs after completion of SSC level. There are 26.8% expressed their weakness about the learning of trades materials and the researcher seeking the cause of insufficient learning in trade course by collecting opinions of students.

Table 5.27: Achieving expertise in the SSC (Voc) level for doing trade jobs

Student (n = 500)		
Question	Opinion	
	Yes	No
Do you have sufficient expertise to join trade jobs for learning in the SSC (Voc) level?	366(73.2)	134(26.8)

Note: Percentage shown in parenthesis

The subject of analysis of this section was whether the trade learning of VE is satisfactory or not. To assess the trade learning the researcher collected answers in a dichotomous form as (i) Yes (coded 1) (ii) No (coded 0).

The discussion performed some statistical analysis like bivariate analysis to determine the association among the independent variables and binary logistic regression analysis (multivariate analysis) to determine the relative effects of the independent variables to the dependent variable. To examine the relationship between the trade learning status of VE students (response variable) and socio-demographic characteristics (explanatory variables) of the respondents, both qualitative and quantitative statistics were applied here. For statistical analyses, trade learning status of VE students was made a binary response.

In the Case of Students

In this context, the researcher has tried to show the association between the trade learning status of VE students and socio-demographic characteristics of the students. For bivariate analysis (chi-square test) here the study used 10 socio-demographic (explanatory) variables with categories (shown in parenthesis): age (in years) (13-15, 1; 16-20, 2); education class (IX, 1; X, 2); gender (male, 1; female, 2); father's education (illiterate, 1; primary, 2; secondary, 3; higher secondary, 4; degree and above, 5); mother's education (illiterate, 1; primary, 2; secondary, 3; higher secondary, 4); father's occupation (service, 1; agriculture, 2; business, 3; others, 4); mother's occupation (housewife, 1; service, 2; others, 3); monthly income (<=2000, 1; 2001-5000, 2; 5001-10000, 3; 10001-15000, 4; 15001-20000, 5; >20000, 6); district (Rajshahi, 1; Bogra, 2; Natore, 3); institutions (Government, 1; MPO listed, 2; NGO directed, 3). The binary logistic regression models were fitted for trade learning status of VE students to identify the determinants among the respondent. In logistic regression analysis, trade learning status of VE students (Y) is

treated as the dependent variable and other variables (X_i , $i = 1, 2, 3 \dots 10$) treated as independent variables. In this model, the dependent variable (Y) was classified in the following manner:

$$\text{Model: } Y = \begin{cases} 1 ; \text{Trade learning of VE students is good,} \\ 0 ; \text{Otherwise.} \end{cases}$$

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analyses are presented in Table 5.28:

Table 5.28: Association between trades learning status and socio-demographic factors of students ($n = 500$)

Independent factors (Student)	Trade learning of VE students is good		χ^2 value	p - value
	Yes (%)	No (%)		
Age (in years)				
13 – 15	227(75.9)	72(24.1)	2.804	0.094
16 – 20	139(69.2)	62(30.8)		
Gender				
Male	183(69.6)	80(30.4)	3.703	0.054
Female	183(77.2)	54(22.8)		
Class (Study level)				
IX (Nine)	212(74.1)	74(25.9)	0.292	0.589
X (Ten)	154(72.0)	60(28.0)		
Father's education				
Illiterate	41(78.8)	11(21.2)	1.622	0.805
Primary	145(71.1)	59(28.9)		
Secondary	119(74.4)	41(25.6)		
Higher secondary	27(75.0)	9(25.0)		
Degree and above	34(70.8)	14(29.2)		
Mother's education				
Illiterate	33(78.6)	9(21.4)	2.782	0.426
Primary	188(75.2)	62(24.8)		
Secondary	120(70.6)	50(29.4)		
Higher secondary	25(65.8)	13(34.2)		
Father's occupation				
Service	56(66.7)	28(33.3)	4.965	0.174
Agriculture	115(78.8)	31(21.2)		
Business	125(74.0)	44(26.0)		
Others	70(69.3)	31(30.7)		
Mother's occupation				
Housewife	342(73.1)	126(26.9)	0.056	0.972
Service	12(75.0)	4(25.0)		
Others	12(75.0)	4(25.0)		
Monthly family income (Tk)				
≤ 5000	194(73.5)	70(26.5)	3.224	0.521
5001 – 10000	83(71.6)	33(28.4)		
10001 – 15000	39(69.6)	17(30.4)		
15001 – 20000	29(85.3)	5(14.7)		
>20000	21(70.0)	9(30.0)		
District				
Rajshahi	189(75.9)	60(24.1)	2.991	0.224
Bogra	95(67.9)	45(32.1)		
Natore	82(73.9)	29(26.1)		
Institution's type				
Government	180(74.1)	63(25.9)	0.324	0.850
Non govt. MPO	148(72.9)	55(27.1)		
NGO	38(70.4)	16(29.6)		

Note: MPO: Monthly Payment Order, NGO: Non Government Organization

The results of bivariate analysis revealed that the respondent's age and gender were statistically significantly associated with the trade learning of VE students. In this study it has been seen that the students whose ages are 13-15 years were more agreed to be good with trade learning condition of VE than the students whose ages are 16-20 years. It has been also seen that female students were more agreed to be good with the trade learning condition of VE than male students (Table 5.28).

Results of the Multivariate Analysis

The results of the binary logistic regression model are presented in Table 5.29:

Table 5.29: Effects of socio-demographic factors of students on trades learning status

Independent factor (Student)	β	S.E	Wald	<i>p</i> value	Odds ratio (OR)	95% CI for OR	
						Lower	Upper
Age (in years)							
13 – 15					1.00		
16 – 20	-0.315	0.205	2.354	0.125	0.730	0.488	1.091
Gender							
Male					1.00		
Female	0.371	0.206	3.254	0.071	1.449	0.968	2.169

Note: VE: Vocational Education

In logistic regression analysis, the respondent's age and gender were statistically significant predictors for the trade learning condition of VE. In this case, gender of the respondents had a similar relationship with the learning condition of VE. In this case, female guardians and social leaders were 1.449 times (OR = 1.449, 95% CI = 0.968-2.169) more likely to be agreed with this condition than male guardians and social leaders (Table 5.29).

5.6 Problems for not Growing Sufficient Expertise in SSC (Voc)

The respondents (134 students, 26.8%) whose were thought that they were not enough experts for doing trade job after completion of SSC level; they were commented about the causes that are liable for insufficient expertise. The following table (Table 5.30) showed the status of causes of growing insufficient expertise in this study.

Table 5.30: Problems for not growing sufficient expertise ($n = 134$)

Comments	Opinion	
	Number (%)	Number (%)
	Yes	No
Lack of infrastructure of the institution	57 (42.5)	77 (57.5)
Shortage/Insufficient class room	56 (41.8)	78 (58.2)
Lack of lab and instruments of related trade	73 (54.5)	61 (45.5)
negligence and absence of teacher/instructor	33 (24.6)	101 (75.4)
lack of trade related skill of teacher/instructor	36 (26.9)	98 (73.1)
Shortage of teacher/vacancy of teacher	51 (38.1)	83 (61.9)
Lack of sincerity and regularity of teacher	34 (25.4)	100 (74.6)
Lack of monitoring of head of institution	41 (30.6)	93 (69.4)
Lack of knowledge and pedagogy of teaching of teacher	25 (18.7)	109 (81.3)
Lack of trained teacher	34 (25.4)	100 (74.6)
Lack of proper co-operation of family	33 (24.6)	101 (75.4)

Note: Percentage shown in parenthesis

Lack of lab and instruments of related trade is the most liable cause of not growing sufficient expertness in SSC (Voc) course. There are 54.5% students were agreed with this cause, the second highest (42.8%) agreed cause was lack of infrastructure of the institution, third (41.8%) was shortage of class room and fourth was shortage of teacher/vacant of teacher. A low and few percent (Table 5.30, 18.7% -30.6%) were commented about the others causes like shortage of teacher/vacant of teacher, lack of trade related skills of teacher, lack of monitoring of the head of the institution, lack of trained teacher, lack of sincerity and regularity of teacher, negligence and absence of teacher, lack of knowledge and pedagogy of teacher and lack of proper co-operation of family.

5.6.1 Lack of Labs/Instruments is the Liabile Cause for not growing Sufficient Expertise in Vocational Education

The subject of analysis of this section was the trade learning of VE students is not satisfactory for the problem lack of labs and instruments of related trade. To assess this problem of trade learning the researcher collected answer in a dichotomous form as (i) Yes (coded 1) (ii) No (coded 0).

The discussion performed some statistical analysis like bivariate analysis to determine the association among the independent variables and binary logistic regression analysis (multivariate analysis) to determine the relative effect of the independent variables to the dependent variables. To examine the relationship between this problem of trade learning of VE students (response variable) and socio-demographic characteristics (explanatory variables) of the respondents, both qualitative and quantitative statistics were applied here. For statistical analyses, the problem of trade learning of VE students was made a binary response.

In the Case of Students

In this context, the researcher has tried to show the association between the problem (lack of labs and instruments of related trade) trade learning of VE students and socio-demographic characteristics of the students. For bivariate analysis (chi-square test) here the study used 10 (Ten) socio-demographic (explanatory) variables with categories (shown in parenthesis): age in years (13-15, 1; 16-20, 2); education class (IX, 1; X, 2); gender (male, 1; female, 2); father's education (illiterate, 1; primary, 2; secondary, 3; higher secondary, 4; degree and above, 5); mother's education (illiterate, 1; primary, 2; secondary, 3; higher secondary, 4); father's occupation (service, 1; agriculture, 2; business, 3; others, 4); mother's occupation (housewife, 1; service, 2; others, 3); monthly income (<=2000, 1; 2001-5000, 2; 5001-10000, 3; 10001-15000,

4; 15001-20000, 5; >20000, 6); district (Rajshahi, 1; Bogra, 2; Natore, 3); institutions (Government, 1; MPO listed, 2; NGO owned, 3). The binary logistic regression models were fitted for this problem of trade learning of VE students to identify the determinants among the respondent. In logistic regression analysis, this problem trade learning of VE students (Y) is treated as the dependent variable and other variables (X_i , $i = 1, 2, 3...10$) treated as independent variables. In this model, the dependent variable (Y) was classified in the following manner:

$$\text{Model: } Y = \begin{cases} 1; \text{ Lack of labs and instruments is the major problems of} \\ \text{trade learning,} \\ 0; \text{ Otherwise.} \end{cases}$$

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analyses are presented in Table 5.31:

Table 5.31: Association between the problem of trade learning and socio-demographic factors of students ($n = 500$)

Independent factors (Student)	Lack of labs and instruments is the major problem trade learning		χ^2 value	p - value
	Yes (%)	No (%)		
Age (in years)				
13 – 15	33(45.8)	39(54.2)	4.689	0.030
16 – 20	40(64.5)	22(35.5)		
Gender				
Male	41(51.2)	39(48.8)	0.834	0.361
Female	32(59.3)	22(40.7)		
Class (Study level)				
IX	35(47.3)	39(52.7)	3.436	0.064
X	38(63.3)	22(36.7)		
Father's education				
Illiterate	9(81.8)	2(18.2)	7.019	0.135
Primary	33(55.9)	26(44.1)		
Secondary	23(56.1)	18(43.7)		
Higher secondary	3(33.3)	6(66.7)		
Degree and above	5(35.7)	9(64.3)		
Mother's education				
Illiterate	5(55.6)	4(44.4)	3.591	0.309
Primary	39(62.9)	23(37.1)		
Secondary	23(46.0)	27(54.0)		
Higher secondary	6(46.2)	7(53.8)		
Father's occupation				
Service	12(42.9)	16(57.1)	5.893	0.117
Agriculture	22(71.0)	9(29.0)		
Business	21(47.7)	23(52.3)		
Others	18(58.1)	13(41.9)		
Mother's occupation				
Housewife	70(55.6)	56(44.4)	1.493	0.474
Service	1(25.0)	3(75.0)		
Others	2(50.0)	2(50.0)		
Monthly family income (Tk)				
≤ 5000	41(58.6)	29(41.4)	5.896	0.207
5001 – 10000	20(60.6)	13(39.4)		
10001 – 15000	6(35.3)	11(64.7)		
15001 – 20000	1(20.0)	4(80.0)		
>20000	5(55.6)	4(44.4)		
District				
Rajshahi	27(45.0)	33(55.0)	4.875	0.087
Bogra	30(66.7)	15(33.3)		
Natore	16(55.2)	13(44.8)		
Institution's type				
Government	22(34.9)	41(65.1)	19.063	0.000
Non govt. MPO	41(74.5)	14(25.5)		
NGO	10(62.5)	6(37.5)		

Note: VE: Vocational Education, MPO: Monthly Payment Order, NGO: Non Government Organization

The results of bivariate analysis revealed that the respondent's age, education class, district and institutions were statistically significantly associated with this problem not growing sufficient expertise of trade learning of VE students. In this study it has been seen that the students whose ages are 16-20 years were more agreed with the cause lack of labs and instruments is a major problem of not growing expertise of proper trade learning than the students whose ages are 13-15 years. The students of class X were more agreed with this problem than the students of class IX. It has been also seen that the students of Bogra and Natore district were more agreed with this problem than the students of Rajshahi district and the students of MPO listed and NGO directed institutions were more agreed with this problem than the students of government institutions (Table 5.31).

Results of the Multivariate Analysis

The results of the binary logistic regression model are presented in Table 5.32:

Table 5.32: Effects of socio-demographic factors of students on problem of trades learning

Independent factor (Student)	β	S.E	Wald	<i>p</i> value	Odds ratio (OR)	95% CI for OR	
						Lower	Upper
Age (in years)							
13 – 15					1.00		
16 – 20	0.492	0.435	1.279	0.258	1.635	0.697	3.834
Class (Study level)							
IX (Nine)					1.00		
X (Ten)	0.675	0.445	2.297	0.130	1.964	0.821	4.699
District							
Rajshahi					1.00		
Bogra	0.626	0.499	1.574	0.210	1.871	0.703	4.977
Natore	-0.029	0.607	0.002	0.962	0.972	0.296	3.193
Institution's type							
Government					1.00		
Non govt. MPO	1.570	0.430	13.303	0.000	4.806	2.067	11.173
NGO	0.827	0.731	1.278	0.258	2.287	0.545	9.590

Note: VE: Vocational Education, MPO: Monthly Payment Order, NGO: Non Government Organization

In logistic regression analysis, the respondent's institutions were statistically significant predictors for this problem not growing sufficient expertise of trade learning of VE. In this case, the institutions type had a similar relationship with this problem of learning trade. Students of MPO listed institutions were 4.806 times (OR = 4.806, 95% CI = 2.067-11.173) more likely to be agreed with this problem than those of government institutions (Table 5.32).

5.7 Appropriateness of Learning and Study Content

The researcher had been seeking the appropriateness of learning and study content by some questions to students which are presented in the following table (Table 5.33). The results were showed that there is no gaps existed in learning process. There are almost all students (84.8%) were agreed that they learn trade works practically, the syllabus of VE is sufficient and skill based, and have similarity between theoretical and practical learning of VE syllabus and most of the students (71.6%) were disagreed with the representation of the study content of the books of SSC (Voc) course is hard.

Table 5.33: appropriateness of learning and study content ($n = 500$)

Comments	opinion	
	Number (%)	Number (%)
	Yes	No
Do you learn your trade lesson/work practically?	420 (84.0)	80 (16.0)
Do you think the study content of SSC (voc) course is sufficient and skilled based?	424 (84.8)	76 (15.2)
Do you think have similarity between theoretical and practical learning in the syllabus of VE?	422 (84.4)	78 (15.6)
Do you think the representation of the study content of the books of VE is hard and unrealizable?	142 (28.4)	358 (71.6)

5.8 Problems of Learning in Institutional Level

In this study the researcher investigated the learning condition in institutional level. There are 80.6% students of selected institutions were said that the learning conditions of their institutions

were good. Only 19.4% student respondents were commented negative learning conditions (Table 5.34).

Table 5.34: Status of learning of SSC (Voc) in school level

Student (n=500)		
Question	Opinion	
	Number (%)	Number (%)
	Yes	No
Is learning of VE good state in your school?	403 (80.6)	97 (19.4)

The subject of analysis of this section was the learning of VE whether good condition or not in school level. To assess the conditions the researcher collected answer in a dichotomous form as (i) Yes (coded 1) (ii) No (coded 0).

The discussion performed some statistical analysis like bivariate analysis to determine the association among the independent variables and binary logistic regression analysis (multivariate analysis) to determine the relative effect of the independent variables to the dependent variable. To examine the relationship between the status of learning of VE in school level (response variable) and socio-demographic characteristics (explanatory variables) of the respondents, both qualitative and quantitative analyses were applied here. For statistical analyses, the trade learning conditions of VE students was made a binary response.

In this context, the researcher has tried to show the association between the status of VE in school level and socio-demographic characteristics of the students. For bivariate analysis (chi-square test) here the study used 10 socio-demographic (explanatory) variables with categories (shown in parenthesis): age in years (13-15, 1; 16-20, 2); education class (IX, 1; X, 2); gender (male, 1; female, 2); father's education (illiterate, 1; primary, 2; secondary, 3; higher secondary, 4; degree and above, 5); mother's education (illiterate, 1; primary, 2; secondary, 3; higher secondary, 4); father's occupation (service, 1; agriculture, 2; business, 3; others, 4); mother's

occupation (housewife, 1; service, 2; others, 3); monthly income (≤ 2000 , 1; 2001-5000, 2; 5001-10000, 3; 10001-15000, 4; 15001-20000, 5; > 20000 , 6); district (Rajshahi, 1; Bogra, 2; Natore, 3); institutions (Government, 1; MPO listed, 2; NGO owned, 3). The binary logistic regression models were fitted for the status of VE in school level to identify the determinants among the respondent. In logistic regression analysis, the status of VE in school level (Y) is treated as the dependent variable and other variables (X_i , $i = 1, 2, 3 \dots 10$) treated as independent variables. In this model, the dependent variable (Y) was classified in the following manner:

$$\text{Model: } Y = \begin{cases} 1 & \text{; Learning condition of VE is good in school level,} \\ 0 & \text{; Otherwise.} \end{cases}$$

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analysis is presented in Table 5.35:

Table 5.35: Association between problem of learning in institutional level and socio-demographic factors of students ($n = 500$)

Independent factors (Student)	Trade learning is good in your institutions		χ^2 value	p - value
	Yes (%)	No (%)		
Age (in years)				
13 – 15	241(80.6)	58(19.4)	0.000	0.999
16 – 20	162(80.6)	39(19.4)		
Gender				
Male	216(82.1)	47(17.9)	0.830	0.362
Female	187(78.9)	50(21.1)		
Class (Study level)				
IX	242(84.6)	44(15.4)	6.890	0.009
X	161(75.2)	53(24.8)		
Father's education				
Illiterate	38(73.1)	14(26.9)	7.007	0.135
Primary	169(82.8)	35(17.2)		
Secondary	123(76.9)	37(23.1)		
Higher secondary	33(91.7)	3(8.3)		
Degree and above	40(83.3)	8(16.7)		
Mother's education				
Illiterate	24(57.1)	18(42.9)	16.987	0.001
Primary	203(81.2)	47(18.8)		
Secondary	144(84.7)	26(15.3)		
Higher secondary	32(84.2)	6(15.8)		
Father's occupation				
Service	69(82.1)	15(17.9)	8.820	0.032
Agriculture	106(72.6)	40(27.4)		
Business	144(85.2)	25(14.8)		
Others	84(83.2)	17(16.8)		
Mother's occupation				
Housewife	372(79.5)	96(20.5)	5.991	0.050
Service	15(93.8)	1(6.2)		
Others	16(100.0)	0(0.0)		
Monthly family income (Tk)				
≤ 5000	206(78.0)	58(22.0)	6.873	0.143
5001 - 10000	94(81.0)	22(19.0)		
10001 - 15000	52(92.9)	4(7.1)		
15001 - 20000	28(82.4)	6(17.6)		
>20000	23(76.7)	7(23.3)		
District				
Rajshahi	213(85.5)	36(14.5)	20.193	0.000
Bogra	95(67.9)	45(32.1)		
Natore	95(85.6)	16(14.4)		
Institution's type				
Government	214(88.1)	29(11.9)	29.787	0.000
Non govt. MPO	140(31.0)	63(31.0)		
NGO	49(90.7)	5(9.3)		

Note: VE: Vocational Education, MPO: Monthly Payment Order, NGO: Non Government Organization

The results of bivariate analysis revealed that the respondent's education class, , mother's education, father's and mother's occupation, district and institutions' type were statistically significantly associated with this opinion of trade learning in institutional level. In this study it has been seen that the students of class IX were more agreed with the comment trade learning is good condition in their institutions than the students of class X. Almost all the students whose mothers' education are primary to higher secondary and above were more agreed with this comment than those whose mothers' education were illiterate. The students whose fathers and mothers occupation are agriculture and house wife were less agreed with this comment than those students whose fathers and mothers occupation were service, business and others. It has been also seen that the students of Natore and Rajshahi district were more agreed with this comments than those of Bogra districts. The students of NGO directed and government institutions were more agreed with this comment than those of MPO listed institutions (Table 5.35).

Results of the Multivariate Analysis

The results of the binary logistic regression model are presented in Table 5.36:

Table 5.36: Effects of socio-demographic factors of students on problem of learning in institutional level

Independent factor (Student)	β	S.E	Wald	<i>p</i> value	Odds ratio (OR)	95% CI for OR	
						Lower	Upper
Class (Study level)							
IX (Nine)					1.00		
X (Ten)	-0.750	0.267	7.909	0.005	0.472	0.280	0.797
Mother's education							
Illiterate					1.00		
Primary	1.044	0.419	6.216	0.013	2.840	1.250	6.452
Secondary	1.221	0.461	7.021	0.008	3.391	1.374	8.368
Higher secondary	1.432	0.637	5.063	0.024	4.189	1.203	14.585
Father's occupation							
Service					1.00		
Agriculture	-0.326	0.436	0.557	0.455	0.722	0.307	1.698
Business	0.420	0.408	1.060	0.303	1.522	0.684	3.388
Others	0.059	0.444	0.018	0.894	1.061	0.444	2.532
Mother's occupation							
Housewife					1.00		
Service	0.659	1.072	0.378	0.539	1.933	0.236	15.807
Others	19.616	9.531E3	0.000	0.998	3.306E8	0.000	
District							
Rajshahi					1.00		
Bogra	-0.463	0.309	2.247	0.134	0.629	0.343	1.153
Natore	0.689	0.374	3.401	0.065	1.992	0.958	4.146
Institution's type							
Government					1.00		
Non govt. MPO	-1.110	0.279	15.800	0.000	0.329	0.191	0.570
NGO	0.113	0.568	0.039	0.893	1.119	0.368	3.405

Note: VE: Vocational Education, MPO: Monthly Payment Order, NGO: Non Government Organization

In logistic regression analysis, the respondent's education class, mother's education, district and institutions type were statistically significant predictors for the opinion (Trade learning condition is good in school level) trade learning condition of VE. In this case, the mother's education and district had a similar relationship with this opinion. On the other hand, education class, and institutions had an inverse relationship with this opinion. Students whose mother's education are primary, secondary and higher secondary were 2.840 times (OR =2.840, 95% CI = 1.250-6.452), 3.391 times (OR = 3.391, 95% CI = 1.374-8.368) and 4.189 times (OR = 4.189, 95% CI = 1.203-

14.585) more likely to be agreed with this opinion than students whose mothers are illiterate. Students who studied in class X were 0.472 times (OR = 0.472, 95% CI =0.280-0.797) less likely to be agreed with this opinion than those of class IX. Students of the Natore district were 1.992 times (OR = 1.992, 95% CI = 0.958 – 4.146) more likely to be agreed with this comments than the students of Rajshahi district. Students of MPO listed institutions were 0.329 times (OR = 0.329, 95% CI = 0.191-0.570) less likely to be agreed with this opinion than those of government institutions (Table 5.36).

The researcher also investigated the causes that the students (97 students, 19.4%) whose were commented negative condition of learning in their institutions. Among them, there are the highest 85.6% students were agreed with the comment lack of lab, instruments and training materials are the main cause of low condition of learning in SSC (Voc) level. There are 75.3% students respondents were agreed with the cause of lack of supervision and monitoring of the head of institutions, 73.2% of that were agreed with lack of sufficient class room, 57.7% were agreed with negligence and absence of teacher, 48.5% were agreed with lack of teachers/instructors expertise and 40.2% were agreed with poor syllabus is the cause of low condition of learning in SSC level in VE (5.37).

Table 5.37: Causes of not good condition (state) of SSC (Voc) in school level

Students (n = 97)		
Comments	opinion	
	Number (%)	Number (%)
	Yes	No
Poor syllabus or syllabus is not appropriate	39 (40.2)	58 (59.8)
Negligence and absence of teacher/instructor	56 (57.7)	41 (42.3)
Lack of teacher's/instructor's expertness	47 (48.5)	50 (51.5)
Lack of sufficient class room	71 (73.2)	26 (26.8)
Lack of lab/instruments/training materials	83 (85.6)	14 (14.4)
Lack of supervision and monitoring of head of institutions	73 (75.3)	24 (24.7)

Note: Percentage shown in parenthesis

The researcher also investigated the classroom and other facilities that are helpful for learning. There are more than half of the student's respondents were commented that it is sufficient. According to descending order the state and facilities of classroom were placed as availability of light and air (69.8%), seat arrangement of students (69.6%), facilities of chalk board (69.0%), arrangement of demonstration of lessons (66.8%), sufficient time allocation for class teaching and practical session (65.4%), size of class room (64.8%), cleanliness of classroom (54.8%), supply/use of teaching materials (53.0%), using lab facilities (50.6%), availability of instruments (46.6%), sufficient fund for trade learning expense (45.2%) and sufficient books in library (42.2%) (Table 5.38).

Table 5.38: State and facilities of class room and others that students get in school level

Student ($n = 500$)			
State and facilities of class room	opinion		
	Number (%)	Number (%)	Number (%)
	Sufficient	Moderate	Not sufficient
Cleanliness of class room	274 (54.8)	189 (37.8)	37 (7.4)
Size of class room	324 (64.8)	147 (29.4)	29 (5.8)
Availability of light and air	349 (69.8)	110 (22.0)	41 (8.2)
Seat arrangement of student	348 (69.6)	103 (20.6)	49 (9.8)
Facilities of chalk board	345 (69.0)	91 (18.2)	64 (12.8)
Arrangement of demonstration of lesson	334 (66.8)	132 (26.4)	34 (6.8)
Using lab facilities	253 (50.6)	131 (26.2)	116 (23.2)
Availability of instruments	233 (46.6)	141 (28.2)	126 (25.2)
Supply/use of teaching material	265 (53.0)	158 (31.6)	77 (15.4)
Sufficient books in library	211 (42.2)	136 (27.2)	153 (30.6)
Sufficient fund of trade learning expense	225 (45.2)	173 (34.6)	102 (20.4)
Sufficient time allocation for class teaching/practical session	327 (65.4)	112 (22.4)	61 (12.2)

Note: Percentage shown in parenthesis

5.9 Conducting Practical Class

Practical class is the most important part of vocational course. It is very well known and real truth that without practical learning VE is totally bogus and failure to achieve its real purpose. Low quality VE cannot meet the challenge and need of global and local demands of industries and other diversified sectors. The researcher investigated the state of practical class in SSC level

VE in this study and the results were more desirable than the researcher expectation. There are most of the students (78.4%) said that the practical classes were conducted in their school in regularly (Table 5.39). There are 15.4% students said that it was conducted irregularly and only 6.2% of that said that it was conducted not at all.

Table 5.39: State of practical class in SSC (Voc) in school level

student ($n = 500$)			
Question	Opinion		
	Regular	Irregular	Not at all
How much practical class conducted in your school?	392 (78.4)	77 (15.4)	31 (6.2)

Note: Percentage shown in parenthesis

The subject of analysis of this section was whether the practical classes are conducted in schools are regularly or not. To assess the condition of practical class conducting in VE, the respondents answered in a trichotomous form as (i) regularly (ii) irregularly and (iii) Not at all. These indicators were subsequently categorized to the dichotomous form as (i) Regular (ii) Not regular by removing the last category (Not at all).

The discussion performed some statistical analysis like bivariate analysis to determine the association among the independent variables and binary logistic regression analysis (multivariate analysis) to determine the relative effects of the independent variables to the dependent variable. To examine the relationship between the opinion of conducting practical class in VE (response variable) and socio-demographic characteristics (explanatory variables) of the respondents, both qualitative and quantitative statistics were applied here. For statistical analyses, conducting practical class in school level was made a binary response.

In this context, the researcher has tried to show the associations between the opinion of conducting practical class in VE and socio-demographic characteristics of the students. For bivariate analysis (chi-square test) here the study used 10 socio-demographic (explanatory)

variables with categories (shown in parenthesis): age in years (13-15, 1; 16-20, 2); education class (IX, 1; X, 2); gender (male, 1; female, 2); father's education (illiterate, 1; primary, 2; secondary, 3; higher secondary, 4; degree and above, 5); mother's education (illiterate, 1; primary, 2; secondary, 3; higher secondary, 4); father's occupation (service, 1; agriculture, 2; business, 3; others, 4); mother's occupation (housewife, 1; service, 2; others, 3); monthly income (≤2000, 1; 2001-5000, 2; 5001-10000, 3; 10001-15000, 4; 15001-20000, 5; >20000, 6); district (Rajshahi, 1; Bogra, 2; Natore, 3); institutions (Government, 1; MPO listed, 2; NGO owned, 3). The binary logistic regression models were fitted for opinion of conducting practical class in VE to identify the determinants among the respondent. In logistic regression analysis, opinion of conducting practical class in VE (Y) is treated as the dependent variable and other variables (X_i , $i = 1, 2, 3...10$) treated as independent variables. In this model, the dependent variable (Y) was classified in the following manner:

$$\text{Model: } Y = \begin{cases} 1; & \text{The teachers conduct practical class regularly,} \\ 0; & \text{Otherwise.} \end{cases}$$

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analysis is presented in Table 5.40:

Table 5.40: Association between the opinion of conducting practical class and socio-demographic factors of students ($n = 500$)

Independent factors (Student)	Teacher conducted practical class		χ^2 value	p - value
	Regular (%)	Not regular (%)		
Age (in years)				
13 – 15	249(83.3)	50(16.7)	10.449	0.001
16 – 20	143(71.1)	58(28.9)		
Gender				
Male	217(82.5)	46(17.5)	5.533	0.019
Female	175(73.8)	62(26.2)		
Class (Study level)				
IX	239(83.6)	47(16.4)	10.533	0.001
X	153(71.5)	61(28.5)		
Father's education				
Illiterate	35(67.3)	17(32.7)	13.668	0.008
Primary	172(84.3)	32(15.7)		
Secondary	116(72.5)	44(27.5)		
Higher secondary	32(88.9)	49(11.1)		
Degree and above	37(77.1)	11(22.9)		
Mother's education				
Illiterate	26(61.9)	16(38.1)	7.448	0.059
Primary	199(79.6)	51(20.4)		
Secondary	137(80.6)	33(19.4)		
Higher secondary	30(78.9)	8(21.1)		
Father's occupation				
Service	66(78.6)	18(21.4)	4.684	0.196
Agriculture	106(72.6)	40(27.4)		
Business	136(80.5)	33(19.5)		
Others	84(83.2)	17(16.8)		
Mother's occupation				
Housewife	365(78.0)	103(22.0)	2.382	0.304
Service	12(75.0)	4(25.0)		
Others	15(93.8)	1(6.2)		
Monthly family income (Tk)				
≤ 5000	209(79.2)	55(20.8)	2.094	0.718
5001 - 10000	92(79.3)	24(20.7)		
10001 - 15000	42(75.0)	14(25.0)		
15001 - 20000	28(82.4)	6(17.0)		
>20000	21(70.0)	9(30.0)		
District				
Rajshahi	215(86.3)	34(13.7)	24.183	0.000
Bogra	91(65.0)	49(35.0)		
Natore	86(77.5)	25(22.5)		
Institution's type				
Government	229(94.2)	14(5.8)	83.198	0.000
Non govt. MPO	119(58.6)	84(41.4)		
NGO	44(81.5)	10(18.5)		

Note: VE: Vocational Education, Note: MPO: Monthly Payment Order, NGO: Non Government Organization

The results of bivariate analysis revealed that the respondent's age, gender, education class, father's education, mother's education, district and institutions type were statistically significantly associated with the opinion of conducting practical class regularly in school. In this study it has been seen that the students whose ages are 13-15 years were more agreed with this opinion than the students whose ages are 16-20. The male students were also more agreed than female students and the students of class IX were more agreed with this opinion than those of class X. Students whose fathers and mothers education are primary to master's level were more agreed with this opinion than the students whose fathers and mothers are illiterate. It has been also seen that students of Rajshahi district were more agreed than other two district and the students of government institutions were more agreed than the students of non-government MPO listed and NGO directed institutions (Table 5.40).

Results of the Multivariate Analysis

The results of the binary logistic regression model are presented in Table 5.41:

Table 5.41: Effects of socio-demographic factors of students on opinion of conducting practical class

Independent factor (Student)	β	S.E	Wald	<i>p</i> value	Odds ratio (OR)	95% CI for OR	
						Lower	Upper
Age (in years)							
13 – 15					1.00		
16 – 20	0.329	0.283	1.349	0.245	1.389	0.798	2.419
Gender							
Male					1.00		
Female	0.512	0.272	3.544	0.060	1.669	0.979	2.844
Class (Study level)							
IX (Nine)					1.00		
X (Ten)	0.745	0.294	6.412	0.011	2.106	1.183	3.748
Father's education							
Illiterate					1.00		
Primary	-0.589	0.517	1.296	0.255	0.555	0.201	1.529
Secondary	0.034	0.522	0.004	0.949	1.034	0.372	2.877
Higher secondary	-1.603	0.787	4.153	0.042	0.201	0.043	0.941
Degree and above	-0.213	0.725	0.086	0.769	0.808	0.195	3.346
Mother's education							
Illiterate					1.00		
Primary	-0.492	0.527	0.871	0.351	0.611	0.217	1.718
Secondary	-0.407	0.563	0.523	0.470	0.666	0.221	2.007
Higher secondary	-0.936	0.787	1.425	0.233	0.392	0.084	1.823
District							
Rajshahi					1.00		
Bogra	0.610	0.342	3.182	0.074	1.840	0.942	3.597
Natore	0.239	0.377	0.401	0.526	1.270	0.606	2.661
Institution's type							
Government					1.00		
Non govt. MPO	2.564	0.347	54.737	0.000	12.990	6.586	25.682
NGO	1.357	0.512	7.036	0.008	3.884	1.425	10.586

Note: VE: Vocational Education, Note: MPO: Monthly Payment Order, NGO: Non Government Organization

In logistic regression analysis, the respondent's gender, education class, father's education district and institutions type were statistically significant predictors for the opinion of conducted practical classes regularly in school level. In this case, gender, education class, district and institutions had a similar relationship with this opinion. On the other hands, father's education had an inverse relationship with this opinion. In this case, female students were 1.669 times (OR = 1.669, 95% CI = 0.979 – 2.844) more like to be agreed than male students in respect to positive

about conducting practical class in school. Students of class X were 2.106 times (OR = 2.106, 95% CI = 1.183-3.748) more likely to be agreed with this consent than students of class IX. Students whose father's education are higher secondary level were 0.201 times (OR = 0.201, 95% CI = 0.043-0.941) less likely to be agreed with this consent than those fathers are illiterate. Students of Bogra district were 1.840 times (OR = 1.840, 95% CI = 0.942 – 3.597) more likely to be agreed with this consent than the students of Rajshahi district. Students who are studied in MPO listed and NGO directed institutions were 12.990 times (OR = 12.990, 95% CI = 6.586-25.682) and 3.884 times (OR = 3.884, 95% CI = 1.425-10.586) more likely to be agreed with this consent than students of government institutions. (5.41).

5.10 Facilities of Practical Class and Test/Examination

In this study the researcher also investigated the tasks of practical skills and test or examination that co-operate the students to acquire good knowledge and skills. For this purpose, the researcher collected opinion from Trade instructors and students.

In the Case of Students

In the case of students most of the respondents (63.2%) were agreed with the comments that the sufficient instruments/equipments/labs are available in the school level for conducting practical class, almost all respondents (82.0%) were agreed with the comments that the teacher conducted any examination for evaluating proper practical skills of trade training, most of the respondents (55.2%) were agreed with the comments that the teacher conducted any extra class for weak students, most of the respondents (73.8%) were agreed with the comments that the teacher perform any kinds of help related to the trade learning outside the classroom and almost all respondents (82.6%) were agreed with the comments that the syllabus of trade course teaching is

finished in proper time (Table 5.42). It is also exposed that extra class for weak students not sufficiently conducted in institution level and also revealed the important cause ‘not availability of instruments/equipments and labs in school’ which is liable for all other types low status of VE.

Table 5.42: Present state of Practical class and test/exam

Student ($n = 500$)		
Question	Opinion	
	Yes	No
Do you feel the sufficient instruments/equipments/lab is available in your school for conducting practical class	316 (63.2)	184 (36.8)
Is the teacher conducted any examination to student for evaluating the proper practical skills of trade learning?	410 (82.0)	90 (18.0)
Is the teacher conducted any extra class for weak students?	276 (55.2)	224 (44.8)
Any help from teacher related to the trade outside the classroom	369 (73.8)	131 (26.2)
Is the syllabus of trade course finished in proper time?	413 (82.6)	87 (17.4)

Note: Percentage shown in parenthesis

Here, the subject of analysis was whether the teacher conducted any exam or test to evaluate the practical skills or learning in schools or not. To assess the conducting test or exam in school, the respondents answered in a dichotomous form as (i) Yes (coded 1) (ii) No (coded 0).

The discussion performed some statistical analysis like bivariate analysis to determine the association among the independent variables and binary logistic regression analysis (multivariate analysis) to determine the relative effects of the independent variables to the dependent variable. To examine the relationship between the opinion of conducting exam or test in school (response variable) and socio-demographic characteristics (explanatory variables) of the respondents, both qualitative and quantitative statistics were applied here. For statistical analyses, opinion of conducting exam or test in school was made a binary response.

In the Case of Students

In this context, the researcher has tried to show the association between the opinion of conducting exam or test in school and socio-demographic characteristics of the students. For bivariate analysis here the study used 10 socio-demographic (explanatory) variables with categories (shown in parenthesis): age (in years) (13-15, 1; 16-20, 2); education class (IX, 1; X, 2); gender (male, 1; female, 2); father's education (illiterate, 1; primary, 2; secondary, 3; higher secondary, 4; degree and above, 5); mother's education (illiterate, 1; primary, 2; secondary, 3; higher secondary, 4); father's occupation (service, 1; agriculture, 2; business, 3; others, 4); mother's occupation (housewife, 1; service, 2; others, 3); monthly income (≤ 2000 , 1; 2001-5000, 2; 5001-10000, 3; 10001-15000, 4; 15001-20000, 5; > 20000 , 6); district (Rajshahi, 1; Bogra, 2; Natore, 3); institutions (Government, 1; MPO listed, 2; NGO owned, 3). The binary logistic regression models were fitted for opinion of conducting practical class in VE to identify the determinants among the respondent. In logistic regression analysis, opinion of conducting practical class in VE (Y) is treated as the dependent variable and other variables (X_i , $i = 1, 2, 3 \dots 10$) treated as independent variables. In this model, the dependent variable (Y) was classified in the following manner:

$$\text{Model:} \quad Y = \begin{cases} 1; \text{Teachers conduct any examination or test in school,} \\ 0; \text{Otherwise.} \end{cases}$$

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analyses are presented in Table 5.43:

Table 5.43: Associations between the opinion of present state of conducting test or examination and socio-demographic factors of students ($n = 500$)

Independent factors (Student)	Teacher conducted any examination or test in school		χ^2 value	p - value
	Yes (%)	No (%)		
Age (in years)				
13 – 15	250(83.6)	49(16.4)	1.310	0.252
16 – 20	160(79.6)	41(20.4)		
Gender				
Male	218(82.9)	45(17.1)	0.298	0.585
Female	192(81.0)	45(19.0)		
Class (Study level)				
IX (Nine)	244(85.3)	42(14.7)	4.974	0.026
X (Ten)	166(77.6)	48(22.4)		
Father's education				
Illiterate	33(63.5)	19(36.5)	18.088	0.001
Primary	175(85.8)	29(14.2)		
Secondary	129(80.6)	31(19.4)		
Higher secondary	34(94.4)	2(5.6)		
Degree and above	39(81.2)	9(18.8)		
Mother's education				
Illiterate	26(61.9)	16(38.1)	14.591	0.002
Primary	204(81.6)	46(18.4)		
Secondary	148(87.1)	22(12.9)		
Higher secondary	32(84.2)	6(15.8)		
Father's occupation				
Service	69(82.1)	15(17.9)	1.589	0.662
Agriculture	115(78.8)	31(21.2)		
Business	141(83.4)	28(16.6)		
Others	85(84.2)	16(15.8)		
Mother's occupation				
Housewife	382(81.6)	86(18.4)	0.701	0.704
Service	14(87.5)	2(12.5)		
Others	14(87.5)	2(12.5)		
Monthly family income (Tk.)				
≤ 5000	208(78.8)	56(21.2)	5.070	0.280
5001 - 10000	99(85.3)	17(14.7)		
10001 - 15000	50(89.3)	6(10.7)		
15001 - 20000	29(85.3)	5(14.7)		
>20000	24(80.0)	6(20.0)		
District				
Rajshahi	218(87.6)	31(12.4)	38.688	0.000
Bogra	91(65.0)	49(35.0)		
Natore	101(91.0)	10(9.0)		
Institution's type				
Government	216(88.9)	27(11.1)	31.847	0.000
Non govt. MPO	143(70.4)	60(29.6)		
NGO	51(94.4)	3(5.6)		

Note: VE: Vocational Education, MPO: Monthly Payment Order, NGO: Non Government Organization

The results of bivariate analysis revealed that the respondent's class, father's education, mother's education, district and institutions type were statistically significantly associated with the opinion of conducting examination or test to evaluate the practical skills in school. In this study it has been seen that students of class IX were more agreed with this opinion than the students of class X. The students whose fathers and mothers are educated were more agreed with this consent than those fathers and mothers are illiterate. Students of Bogra district were less agreed than other two districts. It has been also seen that students of NGO directed institutions were more agreed with this consent government and MPO listed institution (Table 5.43).

Results of the Multivariate Analysis

The results of the binary logistic regression model are presented in Table 5.44:

Table 5.44: Effects of socio-demographic factors of students on opinion of the status of conducting test or examination in school

Independent factor (Student)	β	S.E	Wald	<i>p</i> value	Odds ratio (OR)	95% CI for OR	
						Lower	Upper
Class (Study level)							
IX (Nine)					1.00		
X (Ten)	-0.589	0.278	4.493	0.034	0.555	0.322	0.957
Father's education							
Illiterate					1.00		
Primary	0.818	0.460	3.166	0.075	2.267	0.920	5.582
Secondary	0.370	0.467	0.627	0.428	1.448	0.579	3.617
Higher secondary	1.737	0.880	3.896	0.048	5.682	1.012	31.894
Degree and above	0.337	0.660	0.261	0.609	1.401	0.384	5.106
Mother's education							
Illiterate					1.00		
Primary	0.176	0.484	0.132	0.717	1.192	0.462	3.078
Secondary	0.717	0.537	1.782	0.182	2.048	0.715	5.868
Higher secondary	0.775	0.743	1.087	0.297	2.170	0.506	9.317
District							
Rajshahi					1.00		
Bogra	-0.717	0.310	5.354	0.021	0.488	0.266	0.896
Natore	0.908	0.421	4.640	0.031	2.479	1.085	5.662
Institution's type							
Government					1.00		
Non govt. MPO	-1.211	0.284	18.203	0.000	0.298	0.171	0.520
NGO	0.619	0.666	0.863	0.353	1.857	0.503	6.851

Note: VE: Vocational Education, MPO: Monthly Payment Order, NGO: Non Government Organization

In logistic regression analysis, the respondent's education class, father's education, district and institutions type were statistically significant predictors for the opinion of conducted exam or test for evaluating practical skills in school level. In this case, the father's education and district had a similar relationship with this opinion. On the other hands, education class, district and institutions type had an inverse relationship with this opinion. In this case, students of class X were 0.555 times (OR = 0.555, 95% CI = 0.322-0.957) less likely to be agreed with this consent than students of class IX. Students whose father's education are primary and higher secondary level were 2.267 times (OR = 2.267, 95% CI = 0.920-5.582) and 5.682 times (OR = 5.682, 95% CI = 1.012-31.894) more likely to be agreed with this consent than those whose fathers are illiterate. Students of Bogra district were 0.488 times (OR = 0.488 95% CI = 0.266-0.896) less likely to be agreed with this consent than those of Rajshahi district and students of Natore district were 2.479 times (OR = 2.479, 95% CI = 1.085-5.662) more likely to be agreed with this consent than those of Rajshahi district. Students who are studied in MPO listed institutions were 0.298 times (OR = 0.298, 95% CI = 0.171-0.520) less likely to be agreed with this consent than the students of government institutions (Table 5.44).

In the Case of Trade instructors

In the case of trade teacher, there are 88.3% respondents were agreed with the comments that they are conducting practical class regularly, 61.0% respondents were disagreed with the comments that the sufficient materials have in their school for practical classes, 85.7% respondents were agreed with the comments that the teacher conducted examination to examine the merit and learning of the students, 93.5% respondents were agreed with the comments that the teacher finished his course in proper time and 77.9% respondents were agreed with the

comments that the teacher takes proper step to enrich to the weak students (Table 5.45). It is also exposed that the insufficient instruments and labs in school is liable for low status of VE.

Table 5.45: Present state of Practical class and test/exam

Trade instructor (n=77)		
Question	Opinion	
	Yes	No
Do you take the practical classes regularly?	68 (88.3)	9 (11.7)
Do you have sufficient materials for practical classes in your school?	30 (39.0)	47 (61.0)
Do you take any exam to examine the merit of the students?	66 (85.7)	11 (14.3)
Have you finished your course in proper time?	72 (93.5)	5 (6.5)
Do you take any step to the weak students?	60 (77.9)	17 (22.1)

Note: Percentage shown in parenthesis

5.11 Teacher Status of Vocational Education

Teaching staff is the main wheeler of any educational system. Quality education always depends on quality teaching staff. Quality teaching staff might be formed only providing by quality training and motivational support. Work based and training oriented education like SSC vocational course are strongly deserve the trained up teaching staff for its practical learning nature. In this study, the researcher collected opinion from the Trade instructors about training, usefulness of training and applying the training knowledge in their professional life. In this study, almost all the Trade inspectors (97.5%) were agreed with the necessity of occupational related training and most of them (78.8%) were reported that they have any one or more occupation related training. There are 98.4% Trade instructors confessed that training motivates the teacher to teach well, 100.0% Trade instructors were agreed with the comments that training inspire the teachers to use materials and practical teaching, 95.2% respondents were agreed, it helps the teacher to give suggestion and advices to the students and 100.0% respondents were agreed with the comments, training inspires the teachers to apply the different methods of teaching. It also revealed that there are 92.5% Trade instructors were commented that they follow lesson plan and teaching methods (Table 5.46).

Table 5.46: Necessity of training and existing trained trade instructors

Trade instructor (n=80)		
Question	opinion	
	Yes	No
Do you feel the necessity of the occupation related training?	78(97.5)	2(2.5)
Have you any occupation related training?	63(78.8)	17(21.2)
Trade instructor (n=63)		
Comments	opinion	
	Yes	No
It motivates the teacher to teach well	62(98.4)	1(1.6)
It inspires teacher to use materials & practical teaching	63(100.0)	0(0.0)
It helps teacher to give the suggestions & advices to the students	60(95.2)	3(4.8)
It inspires teacher to apply the different method of teaching	63(100.0)	0(0.0)
Trade instructor (n=80)		
Comments	opinion	
	Yes	No
Do you follow any lesson plan which include in teachers manual to teach in class room	74(92.5)	6(7.5)

Note: Percentage shown in parenthesis

5.11.1 Social and Economic Condition of Teachers/Instructors

In Bangladesh, the social and economic conditions of teacher are decreasing day by day. A large number of teachers lead their life in hand to mouth and hard to reach in the era of unstable inflation. The VE course namely SSC (Voc) is widely introduced in non government and semi-government institutions. The salary scale of Trade instructors is not competent according to job market and social status or expense of living in context of Bangladesh. In this study the researcher collected the opinion from the Trade instructor in this respect. Most of the Trade instructors (73.8%) were disagreed with the comment that their salary is sufficient. There are 60.0% Trade instructor were commented that their salary effects negatively on the trade education and 75.0% of the respondents were commented that their salary is not sufficient to maintain their family (Table 5.47).

Table 5.47: Salary related comments

Trade instructor (n=80)		
Question	opinion	
	Yes	No
Is your salary sufficient as a trade instructor?	21(26.2)	59(73.8)
Has your salary negative effect on the trade education?	48(60.0)	32(40.0)
Is your salary sufficient to maintain your family?	20(25.0)	60(75.0)
Have you any other source of income?	17(21.2)	63(78.8)

Note: Percentage shown in parenthesis

In this context the researcher asked the respondents about other source of income to maintain their family. There are 78.8% respondents were replied that they have no any other source of income. So it is clear that the economic condition of vocational course teacher is low and hard (Table 5.47).

5.12 Management of Vocational Education

In this study the researcher has collected management related information from twenty selected head of the institutions. All the heads (100.0%) of the institutions under study said that they have annual plan for achieving target about VE. Among the multifarious targets they have some common factors are admission target fulfill, regular theoretical and practical class conducting and 100.0% pass, proper monitoring in all respects which were agreed 95.0% respondents (Table 5.48).

Table 5.48: Annual plan for VE (SSC Voc) in school

Head teacher/Principal (n=20)		
Question	Opinion	
	Yes	No
Have you any annual plan for VE (SSC Voc) in your institution?	20(100.0)	0(0.0)
Head teacher (n=20)		
Have any annual plan for VE (SSC Voc) in your school. If yes, then what type of planning?		
Type of planning	Opinion	
	Yes	No
Admission target fulfill	19(95.0)	1(5.0)
Regular class conducting and 100% pass	19(95.0)	1(5.0)
Regular practical class conducting	19(95.0)	1(5.0)
Proper monitoring in all respects	20(100.0)	0(0.0)

Note: Percentage shown in parenthesis

In this connection, the researcher asked the respondents to know various management related information which are represent in the following table (Table 5.49). This table showed the scenario of VE according to root level managerial view. The physical conditions of vocational institutions are vulnerable which are represented by the comments of respondents in every aspect but other steps of management did not work properly for the weakness and limitations of the management. The results revealed that there were only 40.0% respondents agreed that in their schools have sufficient class room, labs, instruments and study materials for conducting practical class. Again 60.0% respondents were agreed with the comments that they have multimedia class room (Table 5.49).

Table 5.49: Management related question

Head teacher/Principal (n=20)		
Question	opinion	
	Yes	No
Do you monitor/inspect teaching activities regularly?	19(95.0)	1(5.0)
Do you feel need to have professional training of trade teacher/instructor of VE?	19(95.0)	1(5.0)
Does your school conduct regularly practical class for practically trade learning?	16(80.0)	4(20.0)
Does your school have sufficient class room/lab/instruments/materials for conducting practical class?	8(40.0)	12(60.0)
Do you take any examination to justify the proper trade learning and practical skill of students in your school?	17(85.0)	3(15.0)
Do you have any multimedia class room in your school?	12(60.0)	8(40.0)
Do you arrange guardians meeting every year in your school?	15(75.0)	5(25.0)
Do you monitor the ending of trade course teaching in time in your school?	20(100.0)	0(0.0)
Do you arrange to take any extra class/care/step for weak students in your school	18(90.0)	2(10.0)

Note: Percentage shown in parenthesis

CHAPTER SIX

Problems of Vocational Education which leads low enrolment

6. Introduction

In order to develop a nation's economy and society, it is important that in average two thirds of the population in most developing countries generally work in jobs that require a skill level which is usually associated with VET. The VET is that part of the education system that provides courses and training programs related to employment with a view to enable the transition from Secondary Education to work for young trainees / students and supply the labor market with competent apprentices (Wahba, M. M. M.). It has been suffering a lot of problems and challenges to change the mindset of parents, the community and stakeholders about VE being second choice to academic education. All parents want to see their children involved in white color jobs in future. Another negative image of TVET in developing countries is the social class. A plumber can be making as much money as an engineer but at the end of the day, he is still a plumber with a lower social status. Money does not always factor in this context. Apparently in some circles, a university degree is still the ticket to social mobility even if it does not lead to employment or more money. How do we change that perception so that parents use a different yardstick to measure their success as parents is an important issue? This is interesting question and part of the answer to the question is that better quality of TVET will lead to higher performance and productivity of TVET trained graduates and hence higher wages and more job chances. Like other developing countries secondary level SSC VE (course) of Bangladesh faces some similar problems and challenges to develop skill workers for its job market locally and abroad.

6.1 Variables related to Problems of Vocational Education

In this study the researcher found some similar challenges from previous literature and some interesting important obstacles from our own socio-economic context and reality. The researcher was collected data from four respondents groups in three districts of Rajshahi division to find the existing problems and challenges of VE. The study was highlighted a number of problems and challenges that are discussed in the following ways:

6.1.1 Enrolment Situation of Vocational Education

The enrollment of VE is the main issue according to government strategy and plan to provide skill development and mitigation the need of diversifying demand of labor force in locally and abroad. Now a day's all steps are centralized about the VE is to be enhanced the entrance into VTE though the ensuring quality and demand of industries. At present enrolment into VE is very low comparing with the GE is under 10.0%. The GOB set the goal to increase enrolment into VE up to the 20.0% by 2020. A large number of students exist in Bangladesh fulfilling criteria for entering the VE but situation expose that the reality is different. In this study the researcher assumed some causes to low entrance into VE and an empirical analysis has been done to conclude the real situation. An opinion survey conducted to know the stakeholder and social leader perception about the assumption which might be influenced the enrollment situation strongly.

Firstly, it is important to know the sources of inspiration of students to come in VE. Because of, it is a driving force to make a carrier decision and also an important factor about enrolment in any education or training course.

Table 6.1: Sources of inspiration to come in VE

Student (n=500)		
Sources of inspiration	Respondent	Percentage
Parents intention	170	34.0
Friends/neighbors/relatives suggestions	22	4.4
Teachers suggestions	25	5.0
Own intention	262	52.4
Parents + own intention	18	3.6
Parents intention + teachers suggestions	1	0.2
Teachers suggestions + own intention	2	0.4
Total	500	100.0

It has been seen that most of the students (52.4%) came to VE by own intention and one third students (34.0%) came by parents intention. Only few students (14.0%) inspired by others namely friends, neighbors, relatives, teachers and so on (Table 6.1). Usually, parents do not send their children to receive VE because of a good number of reasons which was discussed in some literatures earlier. In this research it was investigated to know to the parents, guardians and social leaders that it is true or not. The same question asks to the Trade instructors and Head teachers /Principals to support the opinions. Most of the guardians and social leaders (75.0%) and Trade instructors (85.0%) were agreed with this comment. On the other hand, most of the Head teachers/Principals were disagreed with that comment (Table 6.2). In Bangladesh, VE launched at the secondary level during the last two decades but situation is still unchanged.

Table 6.2: Parent's intention to admit their children in Vocational Education

Comments	Trade instructor (n=80)		Head Teacher /Principal (n=20)		Guardian & Social leader (n=142)	
	Yes	No	Yes	No	Yes	No
Parents do not send their children to receive VE because of all parents' wants to see their children are involved in higher profession and also think that vocational professions hold low dignity.	68 (85.0)	12 (15.0)	9 (45.0)	11 (55.0)	107 (75.4)	35 (24.6)

Note: Percentage shown in parenthesis

Society plays a negative role to enter into the VE by the many kinds of influencing factors. One of them is negligence towards VE. For the negligence, there are some great causes are existed

here. Trade instructors, Head teachers and guardians and social leaders were asked at this view to justify the negligence situation.

Table 6.3: Societies attitudes to admit in Vocational Education

Comments	Trade instructor (n=80)		Head Teacher /Principal (n=20)		Guardian/ social leader (n=142)	
	Yes	No	Yes	No	Yes	No
Society treats VE at negligible eye	64 (80.0)	16 (20.0)	6 (30.0)	14 (70.0)	114 (80.3)	28 (19.7)

Note: Percentage shown in parenthesis

This study revealed that there are most of the Trade instructors (80.0%) were agreed with this opinion but only one third Head teachers/Principals (30.0%) were support it. On the other hand, most of the guardians and socials leaders (80.0%) were confessed that negligence towards VE is still now in society (Table 6.3).

Students' quality is another factor to admit in VE. Society's perception is that only weak students can go into VE. It is also one of the main causes of negligence towards VE. To justify this view Trade instructors, Head teachers/Principals, guardians and social leaders were asked that what types of students should admit in VE.

Table 6.4: Types of student should come in VE

Types of students	Trade Teacher (n=80)		Head Teacher /Principal (n=20)		Guardian/ Social Leader (n=142)	
	Yes	No	Yes	No	Yes	No
Meritorious students	71 (88.8)	9 (11.2)	13 (65.0)	7 (35.0)	80 (56.3)	62 (43.7)
Mid-level student	60 (75.0)	20 (25.0)	6 (30.0)	14 (70.0)	88 (62.0)	54 (38.0)
Weak student	31 (38.8)	49 (61.2)	6 (30.0)	14 (70.0)	79 (55.6)	63 (44.4)
Drop-out student	37 (46.2)	43 (53.8)	12 (60.0)	8 (40.0)	90 (63.4)	52 (36.6)
All types of student	70 (87.5)	10 (12.5)	18 (90.00)	2 (10.0)	122 (85.9)	20 (14.1)

Note: Percentage shown in parenthesis

It has been seen that the types of students is an important factor to enroll in VE. The problems and prospects of VE influence to enroll here strongly. There are 88.8% Trade instructors given opinions that meritorious students need admit into VE because of weak student cannot realize the

subject matter properly. They felt disgusting in teaching to teach something cognitively. In some cases, on hands training is acceptable for weak students but in cognitive learning level they are very much low category. For this reason there are only 38.8% Trade instructors were agreed with the weak students, 46.2% with the drop-out students and 87.5% with the all types of students as vocational students. It is the important opinion that all types of students should admit in VE.

It has also been seen that almost all of the Head teachers/Principals (90.0%) were agreed to the opinion that all types of students should admit in VE and 60.0% for drop-out students, 65% for meritorious students. There are 85.9% guardians and social leaders were also agreed for all types of students, 63.4% for drop-out students and 62.0% for mid-level students, 56.3% for meritorious students and 55.6 for weak students (Table 6.4).

The study revealed that Trade instructors and Head teachers/Principals were not agreed for the weak student as vocational student, only Trade instructors were agreed with meritorious student as VE student. Head teachers and guardians were supported about drop-out students as vocational students but Trade instructors were less agreed with drop-out students. All types of respondent were agreed with all types of students as vocational students and it is the important result for prospectus future of VE. All types of career probability should be existed in VE and it should be fitted for all types of students and then the problems of enrolment will reduce properly.

6.1.1.1 Low Enrollment Situation of Vocational Education

In Bangladesh, comparing with the enrolment of GE and number of drop-out students in secondary level, it is assumed that a huge number of students should be enrolled in VE. But very fewer than assumption and need and it is gloomy that enrolment situation of VE is now less than 10.0% of general education enrolment. The respondent's perception is also the same. Almost all

(91.2%) Trade instructors were commented that the rate of admission in VE is less than necessary. The most of the Head teachers/Principals (85.0%) and guardians and social leaders (82.4%) also commented the same (Table 6.5).

Table 6.5: Opinion about rate of enrolment in VE

Comments	Trade Teacher (n=80)		Head Teacher (n=20)		Guardian/ Social Leader (n=142)	
	Yes	No	Yes	No	Yes	No
Rate of admission in VE is less than according to need	73 (91.2)	7 (8.8)	17 (85.0)	3 (15.0)	117 (82.4)	25 (17.6)

Note: Percentage shown in parenthesis

The various backward linkages contribute in VE for less enrolment. The researcher assumed some causes of less enrolment and justified the viability of these causes by collecting the opinions about the matters. All respondents including students, Trade instructors, Head teachers/Principals and guardians and social leaders were commented here about the matter.

Table 6.6: Causes of less admission in VE

Comments	Students (n=500)		Trade instructor (n=73)		Head teacher /Principal (n=17)		Guardian/Social Leader (n=117)		
	Yes	No	Yes	No	Yes	No	Yes	No	Do not know
Misconception about less social dignity of VP	257 (51.4)	243 (48.6)	55 (75.3)	18 (24.7)	6 (35.3)	11 (64.7)	82 (70.1)	32 (27.4)	3 (2.6)
It is physical work based	376 (75.2)	124 (24.8)	57 (78.1)	16 (21.9)	12 (70.6)	5 (29.4)	75 (64.1)	26 (22.2)	16 (13.7)
Lack of social awareness	374 (74.8)	126 (25.2)	72 (98.1)	1 (1.4)	16 (94.1)	1 (5.9)	107 (91.8)	8 (6.8)	2 (1.7)
Lack of proper learning in VE	289 (57.8)	211 (42.2)	61 (83.6)	12 (16.4)	13 (76.5)	4 (23.5)	99 (84.6)	15 (12.8)	3 (2.6)
Lack of relation between theore. and prac. Education	188 (37.6)	312 (62.4)	52 (71.2)	21 (28.8)	7 (41.2)	10 (58.8)	61 (52.1)	40 (34.2)	16 (13.7)
Misconception about less income of VP	132 (26.4)	368 (73.6)	38 (52.1)	35 (47.9)	1 (5.9)	16 (94.1)	33 (28.2)	74 (63.2)	10 (8.5)
Expense of VE is high	358 (71.6)	142 (28.4)	55 (75.3)	18 (24.7)	11 (64.7)	6 (35.3)	61 (52.1)	47 (40.2)	9 (7.7)
Subject matter of VE is hard	134 (26.8)	366 (73.2)	41 (56.2)	32 (43.8)	4 (23.5)	13 (76.5)	43 (36.8)	63 (53.8)	11 (9.4)
Scope of higher education is limited	178 (35.0)	322 (64.4)	47 (64.4)	26 (35.6)	8 (47.1)	9 (52.9)	66 (56.4)	41 (35.0)	10 (8.5)
Absence of VE course in nearest institutions	266 (53.2)	234 (46.8)	49 (67.1)	24 (32.9)	10 (58.8)	7 (41.2)	62 (53.0)	42 (35.9)	13 (11.1)

VE: Vocational Education, VP: Vocational Profession, percentage shown in parenthesis

The assumed causes were misconception about less social dignity of Vocational Profession (VP), the nature of VP is physical work based, lack of social awareness to admit in VE, lack of proper teaching and learning environment in VE institutions, lack of proper relation between theoretical and practical learning, misconception about less income level of VE, Expenses of VE is high, subject matter of VE is hard, scope of higher education is limited and not clear and absence of VE course/institutions in nearest areas. In this study the researcher wanted to know that all said constraints create how much hazards in VE enrolment that were supported by the respondents. The subject of analysis of this section was causes of less enrolment in VE. To assess the causes of less enrolment in VE, 10 related causes were considered as above said (Table 6.6). The respondents answered in a dichotomous form as (i) Yes (coded 1) and (ii) No (coded 0).

Here the causes have been discussed one after one. The discussion performed some statistical analyses like bivariate analysis (χ^2 test) to determine the associations among the variables and binary logistic regression analysis (multivariate analysis) to determine the relative effects of the independent variables to the dependent variables. To examine the relationships between the causes of less enrolment (response variables) and socio-demographic characteristics (explanatory variables) of the respondents, both qualitative and quantitative statistics were applied here. For statistical analyses, each cause was made a binary response. Bivariate analysis was used to determine the associations between the causes of less enrolment and socio-demographic factors. Here the study used 10 socio-demographic (explanatory) variables with categories (shown in parenthesis) in the case of students respondents: age (in years) (13-15, 1; 16-20, 2); education class (IX, 1; X, 2); gender (male, 1; female, 2); father's education (illiterate, 1; primary, 2; secondary, 3; higher secondary, 4; degree and above, 5); mother's education (illiterate, 1; primary, 2; secondary, 3; higher secondary, 4; degree and above, 5); father's occupation (service,

1; agriculture, 2; business, 3; others, 4); mother's occupation (housewife, 1; service, 2; others, 3); monthly income (<=2000, 1; 2001-5000, 2; 5001-10000, 3; 10001-15000, 4; 15001-20000, 5; >20000, 6); district (Rajshahi, 1; Bogra, 2; Natore, 3); institutions (Government, 1; MPO listed, 2; NGO owned, 3). The binary logistic regression models were fitted for every causes of less enrolment separately to identify the determinants of causes of less enrolment among the respondent. In logistic regression analysis, cause of less enrolment (Y) is treated as the dependent variable and other variables (X_i , $i = 1, 2, 3, \dots$) treated as independent variables. In this model, the dependent variables (Y_j , $j = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10$) are classified in the following manner:

$$\text{Model 1: } Y_1 = \begin{cases} 1 ; \text{ Think misconception about less social dignity of vocational profession,} \\ 0 ; \text{ Otherwise.} \end{cases}$$

$$\text{Model 2: } Y_2 = \begin{cases} 1 ; \text{ Think misconception about less income in vocational profession,} \\ 0 ; \text{ Otherwise.} \end{cases}$$

$$\text{Model 3: } Y_3 = \begin{cases} 1 ; \text{ Think vocational profession is work based,} \\ 0 ; \text{ Otherwise.} \end{cases}$$

$$\text{Model 4: } Y_4 = \begin{cases} 1 ; \text{ Think lack of social awareness about VE,} \\ 0 ; \text{ Otherwise.} \end{cases}$$

$$\text{Model 5: } Y_5 = \begin{cases} 1 ; \text{ Think lack of proper learning in VE,} \\ 0 ; \text{ Otherwise.} \end{cases}$$

$$\text{Model 6: } Y_6 = \begin{cases} 1 ; \text{ Think lack of proper relation between theo. and prac. Education,} \\ 0 ; \text{ Otherwise.} \end{cases}$$

$$\text{Model 7: } Y_7 = \begin{cases} 1 ; \text{ Think expense of VE is high,} \\ 0 ; \text{ Otherwise.} \end{cases}$$

$$\text{Model 8: } Y_8 = \begin{cases} 1 ; \text{ Think subject matter of VE is hard,} \\ 0 ; \text{ Otherwise.} \end{cases}$$

$$\text{Model 9: } Y_9 = \begin{cases} 1 ; \text{ Think scope of higher education is limited and not clear,} \\ 0 ; \text{ Otherwise.} \end{cases}$$

$$\text{Model 10: } Y_{10} = \begin{cases} 1 ; \text{ Think absence of VE course in nearest institutions,} \\ 0 ; \text{ Otherwise.} \end{cases}$$

6.1.1.1.1 Cause 1: Misconception about Less Social Dignity of Vocational Profession

Social dignity of vocational professions is the main factor for receiving VE. People feel indecision to get admission in VE for the less social dignity. It is a wrong idea but traditional values of the society take care of it. The study identified that around half (51.4%) of the students supported it. It is good sign that the students' perception might be changed about this misconception. There are Trade instructors (75.3%) and guardians and social leaders (70.1%) also thought that people of our society have misconception about less dignity of vocational profession. But, there are 64.7% Head teachers/Principals thought that vocational professions do not suffer any kinds of dignity problems (Table 6.6). Their conception is that less enrolment in VE did not influence by the less social dignity.

In the Case of Students

Among the student respondents, 257 students (51.4%) were agreed to the misconception about social dignity of vocational profession as a cause of less enrolment in VE. On the other hand, among the students, 243 students (48.6%) were disagreed to the same (Table 6.6). The researcher has tried to show the association between the cause 1 (Misconception about less social dignity of vocational profession) of less enrolment and socio-demographic characteristics of the students.

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analyses are presented in Table 6.7:

Table 6.7: Associations between the cause 1 of less enrolment and socio-demographic factors of students ($n = 500$)

Independent factors (Student)	Misconception about less social dignity is a cause of less enrolment in VE		χ^2 value	p - value
	Yes (%)	No (%)		
Age (in years)				
13 - 15	144 (48.20)	155 (51.80)	3.125	0.077
16 - 20	113 (56.20)	88 (43.80)		
Gender				
Male	136 (51.70)	127 (48.30)	0.021	0.883
Female	121 (51.10)	116 (48.90)		
Education class				
IX	134 (46.90)	152 (53.10)	5.530	0.019
X	123 (57.50)	91 (42.50)		
Father's education				
Illiterate	21 (40.40)	31 (59.60)	9.219	0.056
Primary	108 (52.90)	96 (47.10)		
Secondary	77 (48.10)	83 (51.90)		
Higher secondary	18 (50.00)	18 (50.00)		
Degree and above	33 (68.80)	15 (31.20)		
Mother's education				
Illiterate	21 (50.00)	21 (50.00)	3.638	0.303
Primary	128 (51.20)	122 (48.80)		
Secondary	83 (48.80)	87 (51.20)		
Higher secondary	25 (65.8)	13 (34.2)		
Father's occupation				
Service	43 (51.20)	41 (48.80)	2.037	0.565
Agriculture	76 (52.10)	70 (47.90)		
Business	92 (54.40)	77 (45.60)		
Others	46 (45.50)	55 (54.50)		
Mother's occupation				
Housewife	239 (51.10)	229 (48.90)	0.822	0.663
Service	10 (62.50)	6 (37.50)		
Others	8 (50.00)	8 (50.00)		
Monthly family income (Tk)				
≤ 5000	146 (55.30)	118 (44.70)	7.639	0.106
5001 - 10000	54 (46.60)	62 (53.40)		
10001 - 15000	21 (37.50)	35 (62.50)		
15001 - 20000	19 (55.90)	15 (44.10)		
>20000	17 (56.70)	13 (43.30)		
District				
Rajshahi	112 (45.00)	137 (55.00)	13.279	0.001
Bogra	72 (51.40)	68 (48.60)		
Natore	73 (65.80)	38 (34.20)		
Institution's type				
Government	122 (50.20)	121 (49.80)	5.362	0.069
Non govt. MPO	114 (56.20)	89 (43.80)		
NGO	21 (38.90)	33 (61.10)		

Note: VE: Vocational Education, MPO: Monthly payment order, NGO: Non-Government Organization

The results of bivariate analysis revealed that the respondent's age, education class, father's education, district and institutions types were statistically significantly associated with cause 1. Students whose ages are 16-20 years were more agreed with the cause 1 than the students whose ages are 13-15 years. Students of class X also were more agreed with the cause 1 than the students of class IX. Students whose fathers are educated were more agreed than the students whose fathers are illiterate. Students of Bogra and Natore district were more agreed with this cause 1 than the students of Rajshahi district. It has been also seen that students of NGO directed institutions were less agreed with this cause than government and MPO listed institutions (Table 6.7).

Results of the Multivariate Analysis

The results of the binary logistic regression model are presented in Table 6.8:

Table 6.8: Effects of socio-demographic factors on cause 1 of less enrolment in VE

Independent factor (Student)	β	S.E	Wald	<i>p</i> value	Odds ratio (OR)	95% CI for OR	
						Lower	Upper
Age (in years)							
13 - 15					1.00		
16 - 20	0.196	0.206	0.903	0.342	1.217	0.812	1.824
Education class							
IX					1.00		
X	0.300	0.211	2.020	0.155	1.350	0.893	2.042
Father's education							
Illiterate					1.00		
Primary	0.584	0.327	3.191	0.074	1.794	0.945	3.405
Secondary	0.340	0.333	1.040	0.308	1.405	0.731	2.698
Higher secondary	0.252	0.455	0.306	0.580	1.286	0.527	3.138
Degree and above	1.211	0.430	7.949	0.005	3.357	1.447	7.791
District							
Rajshahi					1.00		
Bogra	0.033	0.242	0.018	0.893	1.033	0.644	1.659
Natore	0.579	0.271	4.558	0.033	1.784	1.049	3.035
Institution's type							
Government					1.00		
Non govt. MPO	0.221	0.210	1.110	0.292	1.248	0.827	1.883
NGO	-0.437	0.335	1.711	0.191	0.646	0.335	1.244

Note: VE: Vocational Education, MPO: Monthly payment order, NGO: Non-Government Organization

In logistic regression analysis, the respondent's father's education and district were statistically significant predictors for this cause. In this cause, father's education and district had a similar relationship with this cause 1. The students whose father's education are primary and degree level and above were 1.794 times (OR = 1.794, 95% CI = 0.945-3.405) and 3.357 times (OR = 3.357, 95% CI = 1.447 – 7.791) more likely to be agreed with this cause 1 than those fathers are illiterate. Students of Natore district were 1.784 times (OR = 1.784, 95% CI = 1.049-3.035) more likely to be agreed with cause 1 than those of Rajshahi district (Table 6.8).

In the Case of Trade instructors

There are 80 respondents in Trade instructor group in three districts of Rajshahi Division. 73 respondents have been given opinion about this matter. Among the trade instructors, 55 Trade instructors (75.3%) were agreed to the misconception about less social dignity of vocational profession as a cause of less enrolment in VE. On the other hands, among the Trade instructors 18 Trade instructors (24.7%) were disagreed to the same (Table 6.6). So, it is clear that the Trade instructors strongly supported the opinion misconception about less social dignity is a cause of less enrolment in VE.

In the Case of Head Teachers/Principals

There are 20 respondents in Head teachers/Principals group in three districts of Rajshahi Division. Among them, 17 respondents have been given opinion about the cause 1. Among the 17 Head teachers/Principals, there are 6 Head teachers/Principals (35.3%) were agreed with the cause 1. On the other hands, 11 Head teachers/Principals (64.7%) were disagreed with the same (Table 6.6). So, it is concluded that Head teachers/Principals were not agreed with this cause.

In the Case of Guardians and Social leaders

Among the 142 guardians and social leaders, 117 respondents gave opinion about this matter. Among them, there are 82 respondents (70.1%) were agreed with the cause 1. On the other hand, 32 respondents (27.4%) were disagreed to the same and only 3 respondents (2.6%) were replied that they do not know about this matter (Table 6.6). In this context, the researcher has tried to show the associations between the misconception of less social dignity of vocational profession (cause 1) and socio-demographic characteristics of the guardians and social leaders.

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analyses are presented in Table 6.9:

Table 6.9: Associations between the cause 1 of less enrolment in VE and socio-demographic factors of students ($n = 142$)

Independent factors (Guardian and social leader)	Misconception about less social dignity is a cause of less enrolment in VE		χ^2 value	p - value
	Yes (%)	No (%)		
Age (in years)				
18 - 39	38(62.3)	23(37.7)	3.689	0.055
≥ 40	44(78.6)	12(21.4)		
Gender				
Male	58(73.4)	21(26.6)	1.288	0.256
Female	24(63.2)	14(36.8)		
Type of respondents				
Guardians	39(88.6)	5(11.4)	11.575	0.001
Social leaders	43(58.9)	30(41.1)		

Note: VE: Vocational Education

The results of bivariate analysis revealed that respondent's age and subtype were statistically significantly associated with the cause 1. Respondent whose ages are 40 and above were more agreed with this cause 1 than those whose ages are 18-39 years. Guardians were more agreed than social leaders with this cause 1 (Table 6.9).

Results of the Multivariate Analysis

The results of the binary logistic regression model are presented in Table 6.10:

Table 6.10: Effects of socio-demographic factors of guardians and social leaders on cause 1 of less enrolment in VE

Independent factor (Guardian and SL)	β	S.E	Wald	<i>p</i> value	Odds ratio (OR)	95% CI for OR	
						Lower	Upper
Age (in years)							
18 - 39					1.00		
≥ 40	0.724	0.439	2.714	0.099	2.063	0.872	4.881
Type of respondents							
Guardians					1.00		
Social leaders	-1.654	0.536	9.539	0.002	0.191	0.067	0.546

Note: VE: Vocational Education

In logistic regression analysis, respondent's age and subtype were statistically significant predictors for this cause. In this case, respondent's age had a similar relationship with this cause. On the other hand, respondent subtype had an inverse relationship with this cause. The respondents whose ages are 40 and above were 2.063 times (OR = 2.063, 95% CI = 0.872 – 4.881) more likely to be agreed with this cause than those whose ages are 18-39 years. The respondent social leaders were 0.191 times (OR = 0.191, 95% CI = 0.067-0.546) more likely to be agreed with this cause than the guardians (Table 6.10).

6.1.1.1.2 Cause 2: Misconception about Less Income in Vocational

Profession

There is a debate that vocational professionals earn less than others and their earning is limited. There is another debating issue that somewhere vocational experts earn more than higher educated technical persons. In this study, the researcher justified the opinions about income of vocational graduates and its impact to the enrolment in VE. The study exposed the opinion about income of vocational profession in the following table:

Table 6.11: Opinion about income of vocational education

Question	Opinion	Respondent		
		Trade instructor (n=80)	Head teacher /Principal (n=20)	Guardians and Social leaders (n=142)
Income of VE	Satisfactory	33(41.2)	10(50.0)	47(33.1)
	Moderate satisfactory	40(50.0)	9(45.0)	89(62.7)
	Not satisfactory	7(8.8)	1(5.0)	6(4.2)
	Total	80(100.0)	20(100.0)	142(100.0)

Note: Percentage shown in parenthesis, VE: Vocational Education

The above table (Table 6.11) is shown that income of vocational profession is moderate satisfactory according to the respondent's opinion. There are 62.7% guardians and social leaders, 45.0% Head teachers/Principals and 50.0% Trade instructors were given opinion in favor of the moderate satisfactory.

In this study, it has been shown that most of the students (73.6%) were disagreed with the cause 2 (misconception about less income in vocational profession) as the cause of less enrolment. There are 47.9% Trade instructors, 94.1% Head teachers/Principals and 63.2% guardians and social leaders were also disagreed to the same cause. Only 52.1% Trade instructors were agreed with this cause 2 (Table 6.6).

In the Case of Students

In this context, the researcher has tried to show the associations between the cause 2 (Misconception about less income in vocational profession) of less enrolment and socio-demographic characteristics of the students.

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analyses are presented in Table 6.12:

Table 6.12: Association between the cause 2 of less enrolment in VE and socio-demographic factors of students ($n = 500$)

Independent factors (Student)	Misconception about less income of VP is a cause of less enrolment in VE		χ^2 value	p - value
	Yes (%)	No (%)		
Age (in years)				
13 – 15	73 (24.40)	226 (75.60)	1.509	0.219
16 – 20	59 (29.40)	142 (70.60)		
Gender				
Male	53 (20.20)	210 (79.80)	11.147	0.001
Female	79 (33.30)	158 (66.70)		
Education class				
IX	71 (24.80)	215 (75.20)	0.853	0.356
X	61 (28.50)	153 (71.50)		
Father's education				
Illiterate	18 (34.60)	34 (65.40)	3.977	0.409
Primary	46 (22.50)	158 (77.50)		
Secondary	45 (28.10)	115 (71.90)		
Higher secondary	11 (30.60)	25 (69.40)		
Degree and above	12 (25.00)	36 (75.00)		
Mother's education				
Illiterate	14 (33.30)	28 (66.70)	2.784	0.570
Primary	69 (27.60)	181 (72.40)		
Secondary	38 (22.40)	132 (77.60)		
Higher secondary	11 (28.90)	27 (71.10)		
Father's occupation				
Service	22 (26.20)	62 (73.80)	9.467	0.024
Agriculture	50 (34.20)	96 (65.80)		
Business	43 (25.40)	126 (74.60)		
Others	17 (16.80)	84 (83.20)		
Mother's occupation				
Housewife	128 (27.40)	340 (72.60)	4.043	0.132
Service	3 (18.80)	13 (81.20)		
Others	1 (6.20)	15 (93.80)		
Monthly family income (Tk.)				
≤ 5000	80 (30.30)	184 (69.70)	10.953	0.027
5001 - 10000	19 (16.40)	97 (83.6)		
10001 - 15000	13 (23.20)	43 (76.80)		
15001 - 20000	13 (38.20)	21 (61.80)		
>20000	7 (23.20)	23 (76.70)		
District				
Rajshahi	47 (18.90)	202 (81.10)	17.051	0.000
Bogra	53 (37.90)	87 (62.10)		
Natore	32 (28.80)	79 (71.20)		
Institution's type				
Government	57 (23.50)	186 (76.50)	16.074	0.000
Non govt. MPO	70 (34.50)	133 (65.50)		
NGO	5 (9.30)	49 (90.70)		

Note: VE: Vocational Education, MPO: Monthly Payment Order, NGO: Non Government Organization

The results of bivariate analysis revealed that the respondent's gender, father's occupation, monthly family income, district and institutions types were statistically significantly associated with cause 2. Though the most male and female students were disagreed with this cause 2 but comparatively female students were more agreed with this cause 2 than male students. Most of the fathers of the students were disagreed with this cause 2 but the students whose fathers were agreed among them whose occupations are agriculture were more agreed than others. Most of all level of income group categories fathers was disagreed with this cause but among them high and low income group father were more agreed with this cause 2 than others. It has been also seen that district and institutions level, most of the students were disagreed with this cause but students of Bogra district and MPO listed institutions were more agreed with this cause 2 (Table 6.12).

Results of the Multivariate Analysis

The results of the binary logistic regression model are presented in Table 6.13:

Table 6.13: Effects of socio-demographic factors students on the cause 2 of less enrolment in VE

Independent factor (Student)	β	S.E	Wald	<i>p</i> value	Odds ratio (OR)	95% CI for OR	
						Lower	Upper
Gender							
Male					1.00		
Female	0.873	0.237	13.576	0.000	2.394	1.505	3.808
Father's occupation							
Service					1.00		
Agriculture	0.309	0.364	0.719	0.397	1.362	0.667	2.779
Business	0.102	0.330	0.095	0.758	1.107	0.580	2.113
Others	-0.364	0.388	0.880	0.348	0.695	0.325	1.486
Monthly family income (Tk.)							
≤ 5000					1.00		
5001 - 10000	-0.486	0.312	2.242	0.134	0.626	0.340	1.155
10001 - 15000	-0.203	0.383	0.281	0.596	0.816	0.385	1.730
15001 - 20000	0.631	0.424	2.218	0.136	1.880	0.819	4.314
>20000	-0.462	0.487	0.899	0.343	0.630	0.243	1.636
District							
Rajshahi					1.00		
Bogra	0.917	0.280	10.759	0.001	2.502	1.446	4.328
Natore	0.675	0.318	4.490	0.034	1.964	1.052	3.666
Institution's type							
Government					1.00		
Non govt. MPO	0.195	0.242	0.653	0.419	1.215	0.757	1.951
NGO	-0.721	0.531	1.838	0.175	0.486	0.172	1.379

Note: VE: Vocational Education, MPO: Monthly Payment Order, NGO: Non Government Organization

In logistic regression analysis, the respondent's gender and district were statistically significant predictors for this cause. In this cause, student's gender and district had a similar relationship with this cause 2. Female students were 2.394 times (OR = 2.394, 95% CI = 1.505-3.808) more likely to be agreed with this cause 2 than male students. Students of Bogra and Natore district were 2.502 times (OR = 2.502, 95% CI = 1.446-4.328) and 1.964 times (OR = 1.964, 95% CI = 1.052-3.666) more likely to be agreed with this cause than those of Rajshahi district (Table 6.13).

In the Case of Trade instructors

Among the Trade instructors who gave opinion about this cause, among them, 38 Trade instructors (52.1%) were agreed with this cause. On the other hand, 35 Trade instructors (47.9%) were disagreed to the same (Table 6.6).

In the Case of Head teachers/Principals

There are 20 respondents in Head teachers/Principals group in three districts of Rajshahi Division. 17 respondents have been given opinion about this cause. Among the Head teachers/Principals, there are 1 Head teacher (5.9%) was agreed with this cause. On the other hand, among the Head teachers/Principals 16 Head teachers/Principals (94.1%) were disagreed with the same (Table 6.6). So, it is concluded that Head teachers/Principals in all districts were not supported this cause as a cause of less enrolment.

In the Case of Guardians and Social Leaders

Among the 142 guardians and social leaders, 117 respondents gave opinion about this matter. Among the guardians and social leaders (117 out of 142) there are 33 respondents (28.2%) were agreed with this cause. On the other hand, 74 respondents (63.2%) were disagreed with the same and 10 respondents (8.5%) were replied that they do not know about this cause (Table 6.6). In this context, the researcher has tried to show the associations between the misconception of less income in vocational profession (cause 2) and socio-demographic characteristics of the guardians and social leaders.

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analyses are presented in Table 6.14:

Table 6.14: Association between the cause 2 of less enrolment in VE and socio-demographic factors of guardians and social leaders ($n = 117$)

Independent factors(Guardian and social leader)	Misconception about less income of VP is a cause of less enrolment in VE		χ^2 value	p - value
	Yes (%)	No (%)		
Age (in years)				
18 – 39	15(24.6)	46(75.4)	0.822	0.364
≥ 40	18(32.1)	38(67.9)		
Gender				
Male	24(30.4)	55(69.6)	0.568	0.451
Female	9(23.7)	29(76.3)		
Type of respondents				
Guardians	17(38.6)	27(61.4)	3.789	0.052
Social leaders	16(21.9)	57(78.1)		

Note: VE: Vocational Education

The results of bivariate analysis revealed that the respondent's subtype were statistically significantly associated with the cause 2. It has been seen that the guardians were more likely to be agreed than social leaders (Table 6.14).

Results of the Multivariate Analysis

The results of the binary logistic regression model are presented in Table 6.15:

Table 6.15: Effects of socio-demographic factors of guardians and social leaders on the cause 2 of less enrolment in VE

Independent factor (Guardian and SL)	β	S.E	Wald	p value	Odds ratio (OR)	95% CI for OR	
						Lower	Upper
Type of respondents							
Guardians					1.00		
Social leaders	-0.808	0.419	3.710	0.054	0.446	0.196	1.014

Note: VE: Vocational Education

In logistic regression analysis, respondent's subtype was statistically significant predictors for this cause. In this case, respondent's subtype had a similar relationship with this cause. The social leaders were 0.446 times (OR = 0.446, 95% CI = 0.196-1.014) more likely to be agreed with this cause than the guardians (Table 6.15).

6.1.1.1.3 Cause 3: Vocational Profession is Physical Labor Oriented

Maximum vocational professions are physical labor oriented. It is a great reason for not receiving the VE in middle class people. Sometimes parents treat a vocational graduate as a labor or low graded technician. Society's perception is all the same. It also seems that income of vocational graduates is limited. There are vast scope of higher education is not available and not clear the path of higher education. In this study, the researcher also tried to know the future plan or ambition of SSC (Voc) students.

Table 6.16: Distribution of the future plan of the students

Opinion	Respondent (n)	Percentage (%)	Cum. Percentage (%)
Want to get admitted in higher education	442	88.4	88.4
Want to seek/involve in related trade jobs/self-employment	58	11.6	100.0
Total	500	100.0	

In this study it has been seen that almost all (88.4%) SSC (Voc) students wanted to get admitted in the higher education after passing the SSC examination. Only 11.6% students wanted to seek or involve in the trade related jobs or self-employment (Table 6.6). So, the researcher assumed that ambition of higher education and physical labor oriented nature of VE, students were confused to get admitted in VE. There are 75.2% students were agreed that because of physical work based nature, VE suffers less enrolment problem. There are 78.1% Trade instructors, 70.6% Head teachers/Principals and 64.1% guardians and social leaders were also agreed with the same cause (Table 6.6).

In the Case of Students

In this context, the researcher has tried to show the associations between the cause 3 (Vocational profession is physical labor oriented) of less enrolment and socio-demographic characteristics of the students.

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analyses are presented in Table 6.17:

Table 6.17: Associations between the cause 3 of less enrolment of VE and socio-demographic factors of students ($n = 500$)

Independent factors (Student)	Physical work based nature of VP is a cause of less enrolment in VE		χ^2 value	p - value
	Yes (%)	No (%)		
Age (in years)				
13 – 15	221 (73.90)	78 (26.10)	0.661	0.416
16 – 20	155 (77.10)	46 (22.90)		
Gender				
Male	193 (73.40)	70 (26.60)	0.981	0.322
Female	183 (77.20)	54 (22.80)		
Education class				
IX	222 (77.60)	64 (22.40)	2.103	0.147
X	154 (72.00)	60 (28.00)		
Father's education				
Illiterate	37 (71.20)	15 (28.80)	2.446	0.654
Primary	159 (77.90)	45 (22.10)		
Secondary	115 (71.90)	45 (28.10)		
Higher secondary	28 (77.80)	8 (22.20)		
Degree and above	37 (77.10)	11 (22.90)		
Mother's education				
Illiterate	29 (69.00)	13 (31.00)	7.479	0.058
Primary	193 (77.20)	57 (22.80)		
Secondary	120 (70.60)	50 (29.40)		
Higher secondary	34 (89.50)	4 (10.50)		
Father's occupation				
Service	62 (73.80)	22 (26.20)	2.912	0.405
Agriculture	112 (76.70)	34 (23.30)		
Business	132 (78.10)	37 (21.90)		
Others	70 (69.30)	31 (30.70)		
Mother's occupation				
Housewife	352 (75.20)	116 (24.80)	0.671	0.715
Service	13 (81.20)	3 (18.80)		
Others	11 (68.80)	5 (31.20)		
Monthly family income				
≤ 5000	213 (80.70)	51 (19.30)	18.081	0.001
5001 - 10000	78 (67.20)	38 (32.80)		
10001 - 15000	45 (80.40)	11 (19.60)		
15001 - 20000	18 (52.90)	16 (47.10)		
>20000	22 (73.30)	8 (26.70)		
District				
Rajshahi	183 (73.50)	66 (26.50)	0.932	0.627
Bogra	109 (77.90)	31 (22.10)		
Natore	84 (75.70)	27 (24.30)		
Institution's type				
Government	185 (26.10)	58 (23.90)	0.792	0.673
Non govt. MPO	153 (75.40)	50 (24.60)		
NGO	38 (70.40)	16 (29.60)		

Note: VE: Vocational Education, MPO: Monthly Payment Order, NGO: Non Government Organization

The results of bivariate analysis revealed that the respondent's mother's education and monthly family income were statistically significantly associated with cause 3. The students whose mothers are educated were more agreed with this cause 3 than the students whose mothers were illiterate. The students whose families incomes are high level were less agreed than the students whose family's income are low level (Table 6.17).

Results of the Multivariate Analysis

The results of the binary logistic regression model are presented in Table 6.18:

Table 6.18: Effects of socio-demographic factors of students on the cause 3 of less enrolment in VE

Independent factor (Student)	β	S.E	Wald	<i>p</i> value	Odds ratio (OR)	95% CI for OR	
						Lower	Upper
Mother's education							
Illiterate					1.00		
Primary	0.454	0.377	1.450	0.229	1.575	0.752	3.297
Secondary	0.333	0.393	0.719	0.396	1.395	0.646	3.013
Higher secondary	1.616	0.649	6.205	0.013	5.035	1.411	17.963
Monthly family income							
≤ 5000					1.00		
5001 - 10000	-0.754	0.259	8.484	0.004	0.471	0.283	0.782
10001 - 15000	-0.088	0.377	0.054	0.816	0.916	0.438	1.918
15001 - 20000	-1.340	0.394	11.568	0.001	0.262	0.121	0.567
>20000	-0.667	0.467	2.037	0.154	0.513	0.205	1.283

Note: VE: Vocational Education

In logistic regression analysis, the respondent's mother's education and monthly family income were statistically significant predictors for this cause. In this case, Student's mother's education had a similar relationship, while monthly family income had an inverse relationship with this cause 3. Student's whose mother's education are higher secondary level were 5.035 times (OR = 5.035, 95% CI = 0.1411-17.963) more likely to be agreed with this cause than those mothers are illiterate. Students whose monthly family income are 5001 – 10000 and 15001-20000 were 0.471 times (OR = 0.471, 95% CI = 0.283-0.782) and 0.262 times (OR = 0.262, 95% CI = 0.121-0.567) less likely to be agreed with this cause than those monthly family income are ≤ 5000 (Table 6.18).

In the Case of Trade instructors

Among the Trade instructors who gave opinion about the respective cause, 57 Trade instructors (78.1%) were agreed to the cause 3. On the other hand, 16 Trade instructors (21.9%) were not agreed to the same (Table 6.6). So, it may be said that physical work based nature of vocational profession is a cause of less enrolment. The entire Trade instructors thought alike about this cause and it can be concluded that physical labor based nature of vocational profession is an important barrier of enrolment in VE.

In the Case of Head Teachers/Principals

There are 20 respondents in Head teachers/Principals group in three districts of Rajshahi Division. 17 respondents were given opinion about this cause. Among the Head teachers/Principals, there are 12 Head teachers/Principals (70.6%) were agreed with this cause. On the other hand, 5 Head teachers/Principals (29.4%) were disagreed with the same (Table 6.6). So, it is concluded that Head teachers in all districts supported this cause as a cause of less enrolment

In the Case of Guardians and Social leaders

Among the 142 guardians and social leaders, 117 respondents were given opinion about this cause. Among the respondents (117 out of 142) whose were given opinion about this cause, there are 75 respondents (64.1%) were agreed with this cause 3. On the other hand, 26 respondents (22.2%) were not agreed to the same and 16 respondents (13.7%) were replied that they do not know about this matter (Table 6.6). In this context, the researcher has tried to show the association between the cause 3 and socio-demographic characteristics of the guardians and social leaders.

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analyses are presented in Table 6.19:

Table 6.19: Associations between the cause 3 of less enrolment in VE and socio-demographic factors of guardians and social leaders ($n = 117$)

Independent factors(Guardian and social leader)	Physical work based nature of VP is a cause of less enrolment in VE		χ^2 value	p - value
	Yes (%)	No (%)		
Age (in years)				
18 – 39	42(68.9)	19(31.1)	1.250	0.264
≥ 40	33(58.9)	23(41.1)		
Gender				
Male	52(65.8)	27(34.2)	0.313	0.576
Female	23(60.5)	15(39.5)		
Type of respondents				
Guardians	28(63.6)	16(36.4)	0.007	0.935
Social leaders	47(64.4)	26(35.6)		

Note: VE: Vocational Education, VP: Vocational profession

The results of bivariate analysis revealed that there is no background factors was statistically significantly associated with the cause 3 (Table 6.19).

Results of the Multivariate Analysis

In logistic regression analysis, there is no background factors was statistically significant predictors for this cause.

6.1.1.1.4 Cause 4: Lack of Social Awareness about Vocational Education

Awareness is a common factor in every task. Many social attributes do not work properly without awareness and they do not produce proper output as society deserves. Sectors like education etc. depend much on the awareness for their output and for working properly. The VE as not age old introducing educational course with trade basis demands much attraction about social awareness for increasing enrolment. In this study the researcher assumed that lack of awareness is a major factor for enrolment in VE. Social awareness can play a vital role to

increase enrolment in VE. The researcher asked the students about lack of social awareness, there are 73.0% were replied as such that the lack of social awareness influences the VE (Table 6.20).

Table 6.20: Lack of social awareness about VE

Comments	Opinion	Student (<i>n</i> =500)	Percentage (%)
Lack of social awareness about VE	Yes	365	73.0
	No	135	27.0

VE: Vocational Education

In this study it has been seen that most of the students (74.8%) were agreed that lack of social awareness is the cause of less enrolment in VE. There are almost all Trade instructors (98.1%), Head teachers/Principals (94.1%) and guardians and social leaders (91.8%) were also agreed with the same cause (Table 5.6).

In the Case Students

In this context, the researcher has tried to show the associations between the cause 4 (Lack of social awareness about VE) of less enrolment in VE and socio-demographic characteristics of the students.

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analyses are presented in Table 6.21:

Table 6.21: Association between the cause 4 of less enrolment in VE and socio-demographic factors of students ($n = 500$)

Independent factors (Student)	Lack of social awareness about VE is a cause of less enrolment in VE		χ^2 value	p - value
	Yes (%)	No (%)		
Age (in years)				
13 - 15	220 (73.60)	79 (26.40)	0.589	0.443
16 - 20	154 (76.60)	47 (23.40)		
Gender				
Male	206 (78.30)	57 (21.70)	3.662	0.056
Female	168 (70.90)	69 (29.10)		
Education class				
IX	199 (69.60)	87 (30.40)	9.658	0.002
X	175 (81.80)	39 (18.20)		
Father's education				
Illiterate	37 (71.20)	15 (28.80)	6.467	0.167
Primary	148 (72.50)	56 (27.50)		
Secondary	117 (73.10)	43 (26.90)		
Higher secondary	31 (86.10)	5 (13.90)		
Degree and above	41 (85.40)	7 (14.60)		
Mother's education				
Illiterate	27 (64.30)	15 (35.70)	6.266	0.099
Primary	191 (76.40)	59 (23.60)		
Secondary	123 (72.40)	47 (27.60)		
Higher secondary	33 (86.80)	5 (13.20)		
Father's occupation				
Service	58 (69.00)	26 (31.00)	7.573	0.056
Agriculture	121 (82.90)	25 (17.10)		
Business	121 (71.60)	48 (28.40)		
Others	74 (73.30)	27 (26.70)		
Mother's occupation				
Housewife	351 (75.00)	117 (25.00)	0.321	0.852
Service	12 (75.00)	4 (25.00)		
Others	11 (68.80)	5 (31.20)		
Monthly family income				
≤ 5000	205 (77.70)	59 (22.30)	5.700	0.223
5001 - 10000	82 (70.70)	34 (29.30)		
10001 - 15000	44 (78.60)	12 (21.40)		
15001 - 20000	21 (61.80)	13 (38.20)		
>20000	22 (73.30)	8 (26.70)		
District				
Rajshahi	159 (63.90)	90 (36.10)	35.624	0.000
Bogra	113 (80.70)	27 (19.30)		
Natore	102 (91.90)	9 (8.10)		
Institution's type				
Government	182 (74.90)	61 (25.10)	3.552	0.169
Non govt. MPO	157 (77.30)	46 (22.70)		
NGO	35 (64.80)	19 (35.20)		

Note: VE: Vocational Education, MPO: Monthly Payment Order, NGO: Non-Government Organization

The results of bivariate analysis revealed that the respondent's gender, education class, mother's education, father's occupation and district were statistically significantly associated with cause 4. It has been seen that female students were less agreed with this cause than male students. The students of class X were more agreed than the students of class IX. The students whose mothers are educated were more agreed than the students whose mothers are illiterate. The students whose father's occupations are agriculture were more agreed than the students whose father's occupations are service, business and others. Students of Natore and Bogra district were more agreed than the students of Rajshahi district (Table 6.21).

Results of the Multivariate Analysis

The results of the binary logistic regression model are presented in Table 6.22:

Table 6.22: Effects of socio-demographic factors students on the cause 4 of less enrolment in VE

Independent factor (Student)	β	S.E	Wald	<i>p</i> value	Odds ratio (OR)	95% CI for OR	
						Lower	Upper
Gender							
Male					1.00		
Female	-0.029	0.223	0.017	0.896	0.971	0.627	1.505
Education class							
IX					1.00		
X	0.399	0.232	2.955	0.086	1.491	0.946	2.351
Father's occupation							
Service					1.00		
Agriculture	0.649	0.339	2.624	0.105	1.731	0.891	3.364
Business	0.112	0.304	0.137	0.712	1.119	0.617	2.030
Others	0.301	0.343	0.770	0.380	1.351	0.690	2.643
District							
Rajshahi					1.00		
Bogra	0.782	0.260	9.040	0.003	2.186	1.313	3.641
Natore	1.635	0.391	17.451	0.000	5.127	2.381	11.039

Note: VE: Vocational Education

In logistic regression analysis, the respondent's father's education, father's occupation and district were statistically significant predictors for this cause. In this case, all factors had a similar relationship with this cause 4. In this cause, students whose fathers have higher secondary level education and degree and above level education were 3.623 times (OR = 3.623, 95% CI = 0.876-

14.991) and 3.073 times (OR = 3.073, 95% CI = 0.809-11.670) more likely of having the cause 4 than those students whose fathers are illiterate. Students whose father's occupation are agriculture, business and others were 3.427 times (OR = 3.423, 95% CI = 1.463-8.030), 1.863 times (OR = 1.863, 95% CI = 0.918-3.780) and 2.383 times (OR = 2.383, 95% CI = 1.086-5.219) more likely of having this cause than those father's occupation are service consecutively. Students of Bogra and Natore district were 2.483 times (OR = 2.483, 95% CI = 1.364-4.520) and 4.828 times (OR = 4.828, 95% CI = 2.116-11.012) more likely of having this cause 4 than those of Rajshahi district (Table 6.22).

In the Case of Trade instructors

Among the Trade instructors who given opinion about the respective cause, 72 Trade instructors (98.6%) were agreed to the cause 4. On the other hand, 1 Trade instructors (1.4%) were not agreed to the same (Table 6.6). So, it may be said that lack of social awareness is an important cause of less enrolment. The entire Trade instructors thought alike about this matter and it can be concluded that lack of social awareness is a strong barrier to less enrolment in VE.

In The Case of Head Teachers/Principals

There are 20 respondents in Head teachers/Principals group in three districts of Rajshahi Division. 17 respondents have been given opinion about this cause. Among the Head teachers/Principals almost all (94.1%) were agreed with the cause 4. On the other hand, 1 Head teachers/Principals (5.9%) were disagreed with the same (Table 6.6). So, it is concluded that Head teacher respondents in all districts support this cause as a cause of less enrolment in VE.

In the Case of Guardians and Social leaders

Among the 142 guardians and social leaders, 117 respondents have been given opinion about this cause. Among them (117 out of 142), 107 respondents (91.8%) were agreed with the cause 4. On the other hand, 8 respondents (6.8%) were not agreed to the same and 2 respondents (1.7%) were replied that they do not know about this cause (Table 6.6). In this context, the researcher has tried to show the associations between the cause 4 and socio-demographic characteristics of the guardians and social leaders.

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analyses are presented in Table 6.23:

Table 6.23: Associations between the cause 4 of less enrolment in VE and socio-demographic factors of guardians and social leaders ($n = 117$)

Independent factors(Guardian and social leader)	Lack of social awareness about VE is a cause of less enrolment in VE		χ^2 value	p - value
	Yes (%)	No (%)		
Age (in years)				
18 - 39	53(86.9)	8(13.1)	3.402	0.065
≥ 40	54(96.4)	2(3.6)		
Gender				
Male	75(94.9)	4(5.1)	3.777	0.052
Female	32(84.2)	6(15.8)		
Type of respondents				
Guardians	39(88.6)	5(11.4)	0.716	0.398
Social leaders	68(93.2)	5(6.8)		

Note: VE: Vocational Education

The results of bivariate analysis revealed that respondent's age and gender were statistically significantly associated with cause 4. In this study it has been seen that the guardians and social leaders whose ages are 40 and above were more agreed than those whose ages are 18-39 years. It has also seen that female guardians and social leaders were less agreed than male guardians and social leaders (Table 6.23).

Results of the Multivariate Analysis

The results of the binary logistic regression model are presented in Table 6.24:

Table 6.24: Effects of socio-demographic factors guardians and social leaders on the cause 4 of less enrolment in VE

Independent factor (Guardian and SL)	β	S.E	Wald	<i>p</i> value	Odds ratio (OR)	95% CI for OR	
						Lower	Upper
Age (in years)							
18 - 39					1.00		
≥ 40	1.186	0.832	2.034	0.154	3.274	0.642	16.709
Gender							
Male					1.00		
Female	-1.029	0.696	2.185	0.139	0.357	0.091	1.399

Note: VE: Vocational Education

In logistic regression analysis, there is no background characteristics was statistically significant predictors for this cause (Table 6.24).

6.1.1.1.5 Cause 5: Lack of Proper Learning in Vocational Education

Students learning situation in SSC (Voc) course is a mysterious matter. There are large numbers of limitations including infrastructure, labs, equipments, weak students, shortage of skill teachers; apprenticeships, etc. are threading the learning situation. Students cannot show their skills in any field like job markets and self-employment or entrepreneurship. They suffer under estimation by the society. For this reason, people feel dispiriting to send their children to receive VE. In this study it has been shown that most of the students (57.8%) were agreed with this cause. There are 83.6% Trade instructors, 76.5% Head teachers/Principals and 84.6% guardians and social leaders were also agreed to the same cause (Table 6.6).

In the Case of Students

In this context, the researcher has tried to show the associations between the cause 5 (Lack of proper learning in VE) of less enrolment in VE and socio-demographic characteristics of the students.

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analyses are presented in Table 6.25:

Table 6.25: Associations between the cause 5 of less enrolment in VE and socio-demographic factors of students ($n = 500$)

Independent factors (Student)	Lack of proper learning is a cause of less enrolment in VE		χ^2 value	p - value
	Yes (%)	No (%)		
Age (in years)				
13 - 15	165 (55.20)	134 (44.80)	2.087	0.149
16 - 20	124 (61.70)	77 (38.30)		
Gender				
Male	156 (59.30)	107 (40.70)	0.523	0.470
Female	133 (56.10)	104 (43.90)		
Education class				
IX	152 (53.10)	134 (46.90)	5.932	0.015
X	137 (64.00)	77 (36.00)		
Father's education				
Illiterate	34 (65.40)	18 (34.60)	10.134	0.038
Primary	114 (55.90)	90 (44.10)		
Secondary	103 (64.40)	57 (35.60)		
Higher secondary	15 (41.70)	21 (58.30)		
Degree and above	23 (47.90)	25 (52.10)		
Mother's education				
Illiterate	24 (57.10)	18 (42.90)	3.233	0.357
Primary	154 (61.60)	96 (88.40)		
Secondary	90 (52.90)	80 (47.10)		
Higher secondary	21 (55.30)	17 (44.70)		
Father's occupation				
Service	34 (40.50)	50 (59.50)	29.251	0.000
Agriculture	109 (74.70)	37 (25.30)		
Business	89 (52.70)	80 (47.30)		
Others	57 (56.40)	44 (43.60)		
Mother's occupation				
Housewife	277 (59.20)	191 (40.80)	6.288	0.043
Service	5 (31.20)	11 (68.80)		
Others	7 (43.80)	9 (56.20)		
Monthly family income (Tk.)				
≤ 5000	163 (61.70)	101 (38.30)	13.329	0.010
5001 - 10000	71 (61.20)	45 (38.80)		
10001 - 15000	31 (55.40)	25 (44.60)		
15001 - 20000	12 (35.30)	22 (64.70)		
>20000	12 (40.00)	18 (60.00)		
District				
Rajshahi	127 (51.00)	122 (49.00)	12.313	0.002
Bogra	97 (69.30)	43 (30.70)		
Natore	65 (58.50)	46 (41.40)		
Institution's type				
Government	138 (56.80)	105 (43.20)	9.293	0.010
Non govt. MPO	129 (63.50)	74 (36.50)		
NGO	22 (40.70)	32 (59.30)		

Note: VE: Vocational Education, MPO: Monthly Payment Order, NGO: Non Government Organization

The results of bivariate analysis revealed that the respondent's education class, father's education and occupation, mother's occupation, monthly family income, district and institutions type were statistically significantly associated with cause 5. In this case, the students of class X were more agreed with this cause than the students of class IX. Students whose fathers are illiterate were more agreed with this cause than the students whose fathers are educated. Students whose father's occupations are agriculture were more agreed with this cause than those students whose father's occupations are service, business and others. At the same case, the students whose mother's occupations are housewife were more agreed than those students whose mother's occupations are service and others. Students of Bogra district were more agreed than Natore and Rajshahi districts. Student of non-government MPO listed institutions were more agreed than students of government and NGO directed institutions (Table 6.25).

Results of the Multivariate Analysis

The results of the binary logistic regression model are presented in Table 6.26:

Table 6.26: Effects of socio-demographic factors students on the cause 5 of less enrolment in VE

Independent factor (Student)	β	S.E	Wald	<i>p</i> value	Odds ratio (OR)	95% CI for OR	
						Lower	Upper
Education class							
IX					1.00		
X	0.478	0.215	4.919	0.027	1.612	1.057	2.460
Father's education							
Illiterate					1.00		
Primary	-0.121	0.350	0.120	0.729	0.886	0.446	1.760
Secondary	0.450	0.372	1.461	0.227	1.569	0.756	3.255
Higher secondary	-0.117	0.515	0.052	0.820	0.889	0.324	2.442
Degree and above	0.252	0.484	0.272	0.602	1.287	0.498	3.325
Father's occupation							
Service					1.00		
Agriculture	1.774	0.383	21.477	0.000	5.892	2.783	12.473
Business	0.643	0.315	4.163	0.041	1.901	1.026	3.524
Others	0.909	0.348	6.830	0.009	2.482	1.255	4.906
Mother's occupation							
Housewife					1.00		
Service	-0.954	0.588	2.633	0.105	0.385	0.122	1.219
Others	-0.712	0.559	1.619	0.203	0.491	0.164	1.469
Monthly family income (Tk.)							
≤ 5000					1.00		
5001 - 10000	0.433	0.266	2.643	0.104	1.542	0.915	2.598
10001 - 15000	0.348	0.350	0.987	0.321	1.416	0.713	2.815
15001 - 20000	-0.561	0.419	1.792	0.181	0.571	0.251	1.297
>20000	-0.436	0.437	0.996	0.318	0.647	0.275	1.522
District							
Rajshahi					1.00		
Bogra	0.494	0.265	3.468	0.063	1.638	0.974	2.754
Natore	-0.352	0.290	1.472	0.225	0.703	0.398	1.242
Institution's type							
Government					1.00		
Non govt. MPO	-0.022	0.227	0.016	0.922	0.978	0.626	1.527
NGO	-0.789	0.359	4.838	0.028	0.454	0.225	0.918

Note: VE: Vocational Education, MPO: Monthly Payment Order, NGO: Non Government Organization

In logistic regression analysis, the respondent's education class, father's occupation, district and institutions were statistically significant predictors for this cause. In this case, the education class, father's occupation and district had a similar relationship with this cause 5. On the other hand, institutions type had an inverse relationship with this cause. In this cause, students of class

X were 1.612 times (OR = 1.612, 95% CI = 1.057-2.460) more likely to be agreed with this cause than the students of class IX. Students whose father's occupation are agriculture, business and others were 5.892 times (OR = 5.892, 95% CI = 2.783-12.473), 1.901 times (OR = 1.901, 95% CI = 1.026-3.524) and 2.482 times (OR = 2.482, 95% CI = 1.255-4.906) more likely to be agreed with this cause than those father's occupation are service consecutively. Students whose district are Bogra were 1.638 times (OR = 1.638, 95% CI = 0.974-2.754) more likely to be agreed with this cause 5 than those of Rajshahi district. Students of NGO directed institutions were 0.454 times (OR = 0.454, 95% CI = 0.255-0.918) less likely to be agreed with this cause than those of government institutions (Table 6.26).

In the Case of Trade instructors

Among the Trade instructors who have been given opinion about this cause, 61 respondents (83.6%) were agreed to this cause. On the other hand, 12 respondents (16.4%) were not agreed to the same (Table 6.6). So, it is concluded that lack of proper learning is an influential cause less enrolment in VE.

In the Case of Head Teachers/Principals

There are 20 respondents in Head teachers/Principals group in three districts of Rajshahi Division. 17 respondents have been given opinion about this cause. Among them, 13 Head teachers/Principals (76.5%) were agreed with this cause. On the other hand, 4 Head teachers/Principals (23.5%) were disagreed with the same (Table 6.6). So, it is concluded that Head teachers/Principals in all districts support this cause as a cause of less enrolment in VE.

In the Case of Guardians and Social leaders

Among the 142 guardians and social leaders, 117 respondents have been given opinion about this cause. Among them (117 out of 142), 99 respondents (84.6%) were agreed with this cause. On the other hand, 15 respondents (12.8%) were disagreed with the same and 3 respondents (2.6%) were replied that they do not know about this cause (Table 6.6). In this context, the researcher has tried to show the associations between the cause 5 (lack of proper learning in VE) and socio-demographic characteristics of the guardians and social leaders.

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analyses are presented in Table 6.27:

Table 6.27: Associations between the cause 5 of less enrolment in VE and socio-demographic factors of guardians and social leaders ($n = 117$)

Independent factors (Guardian and social leader)	Lack of proper learning is a cause of less enrolment in VE		χ^2 value	p - value
	Yes (%)	No (%)		
Age (in years)				
18 - 39	47(77.0)	14(23.0)	5.605	0.018
≥ 40	52(92.9)	4(7.1)		
Gender				
Male	71(89.9)	8(10.1)	5.166	0.023
Female	28(73.7)	10(26.3)		
Type of respondents				
Guardians	37(84.1)	7(15.9)	0.015	0.903
Social leaders	62(84.9)	11(15.1)		

Note: VE: Vocational Education

The results of bivariate analysis revealed that respondent's age and gender were statistically significantly associated with cause 5. The guardians and social leaders whose ages are 40 and above were more agreed with this cause than those whose ages are 18-39 years. The female guardians and social leaders were less agreed with this cause than male guardians and social leaders (Table 6.27).

Results of the Multivariate Analysis

The results of the binary logistic regression model are presented in Table 6.28:

Table 6.28: Effects of socio-demographic factors of guardians and social leaders on the cause 5 of less enrolment in VE

Independent factor (Guardian and SL)	β	S.E	Wald	<i>p</i> value	Odds ratio (OR)	95% CI for OR	
						Lower	Upper
Age (in years)							
18 - 39					1.00		
≥ 40	1.168	0.615	3.604	0.058	3.217	0.963	10.747
Gender							
Male					1.00		
Female	-0.934	0.540	2.987	0.087	0.393	0.136	1.133

Note: VE: Vocational Education

In logistic regression analysis, respondent's age and gender were statistically significant predictors for this cause. In this case, respondent's age had a similar relationship with this cause. On the other hand, respondent's gender had an inverse relationship with this cause. In this cause, respondents whose ages are 40 years and above were 3.217 times (OR = 3.217, 95% CI = 0.963-10.747) more likely to be agreed with this cause than those whose ages are 18-39 years. Female guardians and social leaders were 0.393 times (OR = 0.393, 95% CI = 0.136-1.133) less likely to be agreed with this cause than male guardians and social leaders (Table 6.28).

6.1.1.1.6 Cause 6: Lack of Proper Relation between Theoretical and Practical Learning

Since the VE is work based and practical oriented, so it is very important to relate practical learning and to conduct side by side with theoretical learning. In Bangladesh, vocational institutions suffer many kinds of problems including lack of skilled teachers and proper monitoring. In spite of existence of all physical facilities, it has been seen in many context that lack of good willingness and proper monitoring it does not provide proper education. Learners suffer generally poor practical learning and nothing scope of apprenticeship in maximum

institutions for the negligence and lack of integrity of teachers and management. In this study the researcher assumed that proper practical learning is absent in most of the vocational institutions and students cannot learn properly their trade skills theoretically and practically and it is the great cause of less enrolment in VE. In this regard, people think that without proper theoretical and practical learning students do not become fit for any job or self-employment. In this study it has been shown that around one third students (37.6%) were agreed with this cause 6 (lack of relation between theoretical and practical learning in VE) as the cause of less enrolment. There are 71.2% Trade instructors, 41.2% Head teachers/Principals and 52.1% guardians and social leaders were also agreed to the same cause (Table 6.6).

In the Case of Students

In this context, the researcher has tried to show the associations between the cause 6 (Lack of proper relation between theoretical and practical learning) of less enrolment and socio-demographic characteristics of the students.

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analyses are presented in Table 6.29:

Table 6.29: Association between the cause of less enrolment in VE and socio-demographic factors of students ($n = 500$)

Independent factors (Student)	Lack of proper relation between theoretical and practical learning is a cause of less enrolment in VE		χ^2 value	p - value
	Yes (%)	No (%)		
Age (in years)				
13 - 15	97 (32.40)	202 (67.60)	8.436	0.004
16 - 20	91 (45.30)	110 (54.70)		
Gender				
Male	92 (35.00)	171 (65.00)	1.622	0.203
Female	96 (40.50)	141 (59.50)		
Education class				
IX	90 (31.50)	196 (68.50)	10.707	0.001
X	98 (45.80)	116 (54.20)		
Father's education				
Illiterate	22 (42.30)	30 (57.70)	1.927	0.749
Primary	71 (34.80)	133 (65.20)		
Secondary	65 (40.60)	95 (59.40)		
Higher secondary	13 (36.10)	23 (63.90)		
Degree and above	17 (35.40)	31 (64.60)		
Mother's education				
Illiterate	18 (42.90)	24 (57.10)	3.681	0.298
Primary	96 (38.40)	154 (61.60)		
Secondary	56 (32.90)	114 (67.10)		
Higher secondary	18 (47.40)	20 (52.60)		
Father's occupation				
Service	34 (40.50)	50 (59.50)	5.947	0.114
Agriculture	65 (44.50)	81 (55.50)		
Business	54 (32.00)	115 (68.00)		
Others	35 (34.70)	66 (65.30)		
Mother's occupation				
Housewife	182 (38.90)	286 (61.10)	5.710	0.058
Service	4 (25.00)	12 (75.00)		
Others	2 (12.50)	14 (87.50)		
Monthly family income (Tk.)				
≤ 5000	106 (40.20)	158 (59.80)	4.121	0.390
5001 - 10000	46 (39.70)	70 (60.30)		
10001 - 15000	17 (30.40)	39 (69.60)		
15001 - 20000	11 (32.40)	23 (67.60)		
>20000	8 (26.70)	22 (73.30)		
District				
Rajshahi	80 (32.10)	169 (67.90)	9.009	0.011
Bogra	54 (38.60)	86 (61.40)		
Natore	54 (48.60)	57 (51.40)		
Institution's type				
Government	85 (35.00)	158 (65.00)	7.219	0.027
Non govt. MPO	89 (43.80)	114 (56.20)		
NGO	14 (25.90)	40 (74.10)		

Note: VE: Vocational Education, MPO: Monthly Payment Order, NGO: Non Government Organization

The results of analysis revealed that the respondent's age, education class, mother's occupation, district and institution types were statistically significantly associated with cause 6. The students whose ages are 16-20 were more agreed with this cause than the students of ages 13-15 years. The students of class X were also more agreed than the students of class IX. The students whose mother's occupations are housewife were more agreed with this cause than the students whose mother's occupation are service and others. The students of Natore district were more agreed with this cause than other two districts. The student of non-government MPO listed institutions were more agreed than the students of government and NGO directed institutions (Table 6.29).

Results of the Multivariate Analysis

The results of the binary logistic regression model are presented in Table 6.30:

Table 6.30: Effects of socio-demographic factors of students on the cause 6 of less enrolment in VE

Independent factor (Student)	β	S.E	Wald	<i>p</i> value	Odds ratio (OR)	95% CI for OR	
						Lower	Upper
Age (in years)							
13 - 15					1.00		
16 - 20	0.391	0.208	3.521	0.061	1.478	0.983	2.223
Education class							
IX					1.00		
X	0.499	0.213	5.467	0.019	1.646	1.084	2.501
Mother's occupation							
Housewife					1.00		
Service	-0.532	0.604	0.775	0.379	0.588	0.180	1.920
Others	-1.390	0.776	3.211	0.073	0.249	0.054	1.139
District							
Rajshahi					1.00		
Bogra	-0.056	0.251	0.050	0.824	0.946	0.579	1.545
Natore	0.252	0.265	0.905	0.341	1.286	0.766	2.161
Institution's type							
Government					1.00		
Non govt. MPO	0.320	0.214	2.239	0.135	1.377	0.906	2.094
NGO	-0.506	0.368	1.888	0.169	0.603	0.293	1.241

Note: VE: Vocational Education, MPO: Monthly Payment Order, NGO: Non Government Organization

In logistic regression analysis, the respondent's age, education class and mother's occupation were statistically significant predictors for this cause. In this case, age and education class had a similar relationship with this cause 6. On the other hand, mother's occupation had an inverse relationship with this cause. In this cause, students ages 16-20 years were 1.478 times (OR = 1.478, 95% CI = 0.983-2.223) more likely to be agreed with this cause than the students whose ages are 13-15 years. Students of class X were 1.646 times (OR = 1.646, 95% CI = 1.084-2.501) more likely to be agreed with this cause than the students of class IX. Students whose mother's occupation others were 0.249 times (OR = 0.249, 95% CI = 0.054-1.139) less likely to be agreed with this cause than those whose mother's occupation are housewife (Table 6.30).

In the Case of Trade instructors

Among the Trade instructors who have been given opinion about this cause, 52 Trade instructors (71.2%) were agreed with this cause. On the other hand, 21 Trade instructors (28.8%) were not agreed to the same (Table 6.6).

In the Case of Head Teachers/Principals

There are 20 respondents in Head teachers/Principals group in three districts of Rajshahi Division. 17 respondents have been given opinion about this cause. Among them, 7 Head teachers/Principals (41.2%) were agreed with this cause. On the other hand, 10 Head teachers/Principals (58.8%) were disagreed with the same (Table 6.6). So, it is concluded that Head teachers/Principals in all districts do not support this cause as a cause of less enrolment in VE.

In the Case of Guardians and Social leaders

Among the 142 guardians and social leaders, 117 respondents have been given opinion about this cause. Among the respondents (117 out of 142), 61 respondents (52.1%) were agreed with this cause. On the other hand, 40 respondents (34.2%) were disagreed with the same and 16 respondents (13.7%) were replied that they do not know about this cause (Table 5.6). In this context, the researcher has tried to show the associations between the cause 6 and socio-demographic characteristics of the guardians and social leaders.

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analyses are presented in Table 6.31:

Table 6.31: Association between the cause 6 of less enrolment and socio-demographic factors of guardians and social leaders ($n = 117$)

Independent factors (Guardian and social leader)	Lack of proper relation between theoretical and practical learning is a cause of less enrolment in VE		χ^2 value	p - value
	Yes (%)	No (%)		
Age (in years)				
18 - 39	30(49.2)	31(50.8)	0.446	0.504
≥ 40	31(55.4)	25(44.6)		
Gender				
Male	40(50.6)	39(49.4)	0.220	0.639
Female	21(55.3)	17(44.7)		
Type of respondents				
Guardians	23(52.3)	21(47.7)	0.001	0.982
Social leaders	38(52.1)	35(47.9)		

The results of bivariate analysis revealed that there is no background factors were statistically significantly associated with cause 6 (lack of relation between theoretical and practical learning) (Table 6.31).

Results of the Multivariate Analysis

In logistic regression analysis, there is no background factor was statistically significant predictors for this cause.

6.1.1.1.7 Cause 7: Misconception about Expense of Vocational Education is high

An idea has existed in our society that technical and VE are more costly than general education because of involvement of equipment and apparatus. Poor family thinks it may be unbearable for them. Sometimes learners can not avail trade instruments or equipment in own belongs for personal practice in their residence level. For this reason, the researcher justified the opinions about the expense of VE and its influences to the less enrolment in VE. The study exposed the opinion about the expense of VE in the following table:

Table 6.32: Opinion about expense of VE

Question	Opinion	Respondent		
		Trade instructor (n=80)	Head teacher /Principal (n=20)	Guardians and Social leaders (n=142)
Expense of VE	Expensive	8(10.0)	13(65.0)	31(21.8)
	Moderate expensive	32(40.0)	0(0.0)	82(57.7)
	Not expensive	40(50.0)	7(35.0)	29(20.4)
	Total	80(100.0)	20(100.0)	142(100.0)

Note: VE: Vocational Education, Percentage shown in parenthesis

The above table (Table 6.32) is shown that expense of VE is a matter of debate. Half of the Trade instructors (50.0%) were commented that it is not expensive but most of the Head teachers/Principals (65.0%) were commented that it is expensive. On the other hand, most of the guardians and social leaders (57.7%) were commented that it is moderately expensive.

In this study it has been shown that most of the students (71.6%) were agreed with the comment expense of VE is high as the cause of less enrolment in VE. There are 75.3% Trade instructors,

64.7% Head teachers and 52.1% guardians and social leaders were also agreed to the same cause (Table 6.6).

In the Case Students

In this context, the researcher has tried to show the associations between the cause 7 (Misconception about expense of VE is high) of less enrolment in VE and socio-demographic characteristics of the students.

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analyses are presented in Table 6.33:

Table 6.33: Association between the cause 7 of less enrolment in VE and socio-demographic factors of students

Independent factors (Student)	Expense of VE is high is a cause of less enrolment in VE		χ^2 value	<i>p</i> - value
	Yes (%)	No (%)		
Age (in years)				
13 - 15	225 (75.30)	74 (24.70)	4.815	0.027
16 - 20	133 (66.20)	68 (33.80)		
Gender				
Male	189 (71.90)	74 (28.10)	0.079	0.891
Female	169 (71.30)	68 (28.70)		
Education class				
IX	216 (75.50)	70 (24.50)	5.061	0.024
X	142 (66.40)	72 (33.60)		
Father's education				
Illiterate	32 (61.50)	20 (38.50)	5.494	0.240
Primary	155 (76.00)	49 (24.00)		
Secondary	112 (70.00)	48 (30.00)		
Higher secondary	27 (75.00)	9 (25.00)		
Degree and above	32 (66.70)	16 (33.30)		
Mother's education				
Illiterate	26 (61.90)	16 (38.10)	3.869	0.276
Primary	178 (71.20)	72 (28.80)		
Secondary	123 (72.40)	47 (27.60)		
Higher secondary	31 (81.60)	7 (18.40)		
Father's occupation				
Service	60 (71.40)	24 (28.60)	3.235	0.357
Agriculture	104 (71.20)	42 (28.80)		
Business	115 (68.00)	54 (32.00)		
Others	79 (78.20)	22 (21.80)		
Mother's occupation				
Housewife	333 (71.20)	135 (28.80)	0.870	0.647
Service	12 (75.00)	4 (25.00)		
Others	13 (81.20)	3 (18.80)		
Monthly family income (Tk.)				
≤ 5000	191 (72.30)	73 (27.70)	0.353	0.986
5001 - 10000	81 (69.80)	35 (30.20)		
10001 - 15000	40 (71.40)	16 (28.60)		
15001 - 20000	25 (73.50)	9 (26.50)		
>20000	21 (70.00)	9 (30.00)		
District				
Rajshahi	185 (74.30)	64 (25.70)	12.268	0.002
Bogra	85 (60.70)	55 (39.30)		
Natore	88 (79.30)	23 (20.70)		
Institution's type				
Government	187 (77.00)	56 (23.00)	12.429	0.002
Non govt. MPO	128 (63.10)	75 (36.90)		
NGO	43 (79.60)	11 (20.40)		

Note: VE: Vocational Education, MPO: Monthly Payment Order, NGO: Non Government Organization

The results of bivariate analysis revealed that the respondent's age, education class, district and institution type were statistically significantly associated with cause 7. The students whose ages are 16-20 years were less agreed with this cause than the students whose ages are 13-15 years. The students of class X were also less agreed with this cause than the students of class IX. It has been also seen that the students of Natore district were more agreed with this cause than others two districts. At the same students of NGO directed institutions were more agreed with this cause than the student of government and non-government MPO listed institutions (Table 6.33).

Results of the Multivariate Analysis

The results of the binary logistic regression model are presented in Table 6.34:

Table 6.34: Effects of socio-demographic factors guardians and social leaders on the cause 7 of less enrolment in VE

Independent factor (Student)	β	S.E	Wald	<i>p</i> value	Odds ratio (OR)	95% CI for OR	
						Lower	Upper
Age (in years)							
13 - 15					1.00		
16 - 20	-0.385	0.225	2.931	0.087	0.681	0.438	1.057
Education class							
IX					1.00		
X	-0.523	0.227	5.310	0.021	0.593	0.380	0.925
District							
Rajshahi					1.00		
Bogra	-0.210	0.257	0.673	0.412	0.810	0.490	1.340
Natore	0.818	0.307	7.096	0.008	2.265	1.241	4.134
Institution's type							
Government					1.00		
Non govt. MPO	-0.695	0.228	9.327	0.002	0.499	0.320	0.780
NGO	0.421	0.399	1.116	0.291	1.524	0.697	3.330

Note: VE: Vocational Education, MPO: Monthly Payment Order, NGO: Non Government Organization

In logistic regression analysis, the respondent's age, education class, district and institution types were statistically significant predictors for this cause. In this case, district had a similar relationship with this cause 7. On the other hand, age, education class and institution types had an inverse relationship with this cause. In this cause, Students in Natore district were 2.265times (OR = 2.265, 95% CI = 1.245-4.134) more likely to be agreed with this cause than student of

Rajshahi district. Students whose ages are 16-20 years were 0.686 times (OR = 0.686, 95% CI = 0.438-1.058) less likely to be agreed with this cause than those whose ages are 13-15 years. Students who are studied in class X were 0.593 times (OR = 0.593, 95% CI = 0.380-0.925) less likely to be agreed with this cause than those studied in class IX. Students who are studied in non-government MPO listed institutions were 0.499 times (OR = 0.499, 95% CI = 0.320-0.780) less likely to be agreed with this cause than those who are studied in government institutions (Table 6.34).

In the Case of Trade instructors

Among the Trade instructors who have been given opinion about this cause, 55 Trade instructors (75.3%) were agreed with this cause. On the other hand, 18 Trade instructors (24.7%) were disagreed to the same (Table 6.6).

In the Case of Head Teachers/Principals

There are 20 respondents in Head teachers/Principals group in three districts of Rajshahi Division. 17 respondents have been given opinion about this cause. Among them, 11 Head teachers/Principals (64.7%) were agreed with this cause. On the other hand, 6 Head teachers/Principals (35.3%) were disagreed with the same (Table 6.6). So, it is concluded that Head teachers/Principals in all districts support this cause as a cause of less enrolment in VE.

In the Case of Guardians and Social leaders

Among the 142 guardians and social leaders, 117 respondents have been given opinion about this cause. Among the respondents (117 out of 142), 61 respondents (52.1%) were agreed with this cause. On the other hand, 47 respondents (40.2%) were disagreed with the same and 9 respondents (7.7%) were replied that they do not know about this cause (Table 6.6). In this

context, the researcher has tried to show the associations between the cause 7 and socio-demographic characteristics of the guardians and social leaders.

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analyses are presented in Table 6.35:

Table 6.35: Associations between the cause 7 of less enrolment in VE and socio-demographic factors of guardians and social leaders

Independent factors (Guardian and social leader)	Expense of VE is high is a cause of less enrolment in VE		χ^2 value	<i>p</i> - value
	Yes (%)	No (%)		
Age (in years)				
18 - 39	35(57.4)	26(42.6)	1.402	0.236
≥ 40	26(46.4)	30(53.6)		
Gender				
Male	39(49.4)	40(50.6)	0.748	0.387
Female	22(57.9)	16(42.1)		
Type of respondents				
Guardians	18(40.9)	26(59.1)	3.562	0.059
Social leaders	43(58.9)	30(41.1)		

Note: VE: Vocational Education

The results of bivariate analysis revealed that respondent's subtype was statistically significantly associated with the cause 7. The respondent social leaders were more agreed than the respondent guardians (Table 6.35).

Results of the Multivariate Analysis

The results of the binary logistic regression model are presented in Table 6.36:

Table 6.36: Effects of socio-demographic factors guardians and social leaders on the cause 7 of less enrolment in VE

Independent factor (Guardian and SL)	B	S.E	Wald	<i>p</i> value	Odds ratio (OR)	95% CI for OR	
						Lower	Upper
Type of respondents							
Guardians					1.00		
Social leaders	0.728	0.388	3.516	0.061	2.070	0.968	4.430

Note: VE: Vocational Education

In logistic regression analysis, respondent's subtype was statistically significant predictors for this cause. In this case, respondent's subtype had a similar relationship with this cause. In this cause, social leaders were 2.070 times (OR = 2.070, 95% CI = 0.968-4.430) more likely to be agreed with this cause than the guardians (Table 6.36).

6.1.1.1.8 Cause 8: Subject Matter of Vocational Education is Hard

The VE is work based and training oriented which comprises 35 trades in various sectors. SSC (Voc) conducted theoretical and practical learning including some general subjects like as general education. The subject matter of each trade is related to job nature and demand based and content of subject whether appropriate or not for vocational students. The targeted vocational students are weak meritorious and drop-out groups. For this reason, the researcher investigated in this study that the subject matter whether 'hard' or 'not' for vocational students. The researcher justified the opinions that the hardness of subject matter has any influence to less enrolment in VE.

It has been shown that there are 26.8% students were agreed with the cause 8 (Subject matter of VE is hard) as the cause of less enrolment in VE. There are 56.2% Trade instructors, 23.5% Head teachers/Principals and 36.8% guardians and social leaders were also agreed to the same cause (Table 6.6).

In the Case of Students

In this context, the researcher has tried to show the associations between the cause 8 of less enrolment in VE and socio-demographic characteristics of the students.

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analyses are presented in Table 6.38:

Table 6.38: Associations between the cause 8 of less enrolment in VE and socio-demographic factors of students

Independent factors (Student)	Subject matter of VE is hard is a cause of less enrolment in VE		χ^2 value	<i>p</i> - value
	Yes (%)	No (%)		
Age (in years)				
13 - 15	75 (25.10)	224 (74.90)	1.117	0.291
16 - 20	59 (29.40)	142 (70.60)		
Gender				
Male	57 (21.70)	206 (78.30)	7.435	0.006
Female	77 (32.50)	160 (67.50)		
Education class				
IX	76 (26.60)	210 (73.40)	0.017	0.895
X	58 (27.10)	156 (72.90)		
Father's education				
Illiterate	10 (19.20)	42 (80.80)	6.432	0.169
Primary	50 (24.50)	154 (75.50)		
Secondary	46 (28.80)	114 (71.20)		
Higher secondary	9 (25.00)	27 (75.00)		
Degree and above	19 (39.60)	29 (60.40)		
Mother's education				
Illiterate	11 (26.20)	31 (73.80)	3.520	0.318
Primary	66 (26.40)	184 (73.60)		
Secondary	42 (24.70)	128 (75.30)		
Higher secondary	15 (39.50)	23 (60.50)		
Father's occupation				
Service	26 (31.00)	58 (69.00)	3.211	0.360
Agriculture	34 (23.30)	112 (76.70)		
Business	42 (24.90)	127 (75.10)		
Others	32 (31.70)	69 (68.30)		
Mother's occupation				
Housewife	121 (25.90)	347 (74.10)	3.490	0.175
Service	6 (37.50)	10 (62.50)		
Others	7 (43.80)	9 (56.20)		
Monthly family income (Tk.)				
≤ 5000	63 (23.90)	201 (76.10)	3.434	0.488
5001 - 10000	33 (28.40)	83 (71.60)		
10001 - 15000	16 (28.60)	40 (71.40)		
15001 - 20000	11 (32.40)	23 (67.60)		
>20000	11 (36.70)	19 (63.30)		
District				
Rajshahi	74 (29.70)	175 (70.30)	2.683	0.261
Bogra	36 (25.70)	104 (74.30)		
Natore	24 (21.60)	87 (78.40)		
Institution's type				
Government	78 (32.10)	165 (67.90)	9.481	0.009
Non govt. MPO	49 (24.10)	154 (75.90)		
NGO	7 (13.00)	47 (87.00)		

Note: VE: Vocational Education, MPO: Monthly Payment Order, NGO: Non Government Organization

The results of bivariate analysis revealed that the respondent's gender and institutions were statistically significantly associated with cause 8. It has been seen that most of respondent were disagreed with this cause. Among the respondent female students were comparative more agreed with this cause 8 than the male respondent. It has been also seen that most of students of all types of institutions were disagreed with this cause. Among them students of government institutions comparatively more agreed with this cause than others non-government MPO listed and NGO directed institutions (Table 6.38).

Results of the Multivariate Analysis

The results of the binary logistic regression model are presented in Table 6.39:

Table 6.39: Effects of socio-demographic factors students on the cause 8 of less enrolment in VE

Independent factor (Student)	B	S.E	Wald	<i>p</i> value	Odds ratio (OR)	95% CI for OR	
						Lower	Upper
Gender							
Male					1.00		
Female	0.586	0.207	8.058	0.005	1.798	1.199	2.695
Institution's type							
Government					1.00		
Non govt. MPO	-0.421	0.216	3.798	0.051	0.656	0.430	1.002
NGO	-1.197	0.431	7.730	0.005	0.302	0.130	0.702

Note: VE: Vocational Education, MPO: Monthly Payment Order, NGO: Non Government Organization

In logistic regression analysis, the respondent's gender and institution types were statistically significant predictors for this cause. In this case, gender had a similar relationship with this cause. On the other hand, institution types had an inverse relationship with this cause. In this cause, Female students were 1.798 times (OR = 1.798, 95% CI = 1.199-2.695) more likely to be agreed with this cause than male students. Students of non-government MPO listed institutions and NGO directed institutions were 0.656 times (OR = 0.656, 95% CI = 0.430-1.002) and 0.302 times (OR = 0.302, 95% CI= 0.130-0.702) less likely to be agreed with this cause than the students of government owned institutions (Table 6.39).

In the Case of Trade instructors

Among the Trade instructors who have been given opinion about this cause, 41 Trade instructors (56.2%) were agreed with this cause. On the other hand, 32 Trade instructors (43.8%) were disagreed to the same (Table 6.6).

In the Case of Head teachers/Principals

There are 20 respondents in Head teacher/Principals group in three districts of Rajshahi Division. 17 respondents have been given opinion about this cause. Among them, 4 Head teachers/Principals (23.5%) were agreed with this cause 8. On the other hand, 13 Head teachers/Principals (76.5%) were disagreed with the same (Table 6.6). So, it is concluded that Head teachers/Principals in all districts do not support this comment as a cause of less enrolment in VE.

In the Case of Guardians and Social leaders

Among the 142 guardians and social leaders, 117 respondents have given opinion about this cause. Among the respondents (117 out of 142), 43 respondents (36.8%) were agreed with this cause. On the other hand, 63 respondents (53.8%) were disagreed with the same and 11 respondents (9.4%) were replied that they do not know about this matter (Table 6.6). In this context, the researcher has tried to show the association between the cause 8 and socio-demographic characteristics of the guardians and social leaders.

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analyses are presented in Table 6.40:

Table 6.40: Associations between the cause 8 of less enrolment in VE and socio-demographic factors of guardians and social leaders ($n = 117$)

Independent factors (Guardian and social leader)	Subject matter of VE is hard is a cause of less enrolment in VE		χ^2 value	p - value
	Yes (%)	No (%)		
Age (in years)				
18 - 39	22(36.1)	39(63.9)	0.026	0.872
≥ 40	21(37.5)	35(62.5)		
Gender				
Male	26(32.9)	53(67.1)	1.544	0.214
Female	17(44.7)	21(55.3)		
Type of respondents				
Guardians	13(29.5)	31(70.5)	1.576	0.209
Social leaders	30(41.1)	43(58.9)		

Note: VE: Vocational Education

The results of bivariate analysis revealed that there is no background factors was statistically significantly associated with cause 8 (Table 6.40).

Results of the Multivariate Analysis

In logistic regression analysis, there is no background factor was statistically significant predictors for this cause.

6.1.1.1.9 Cause 9: Scope of Higher Education is Limited

High ambition is a natural eagerness in any able personality. All parents and students desire for the success in their children and own context of educational life. Most of the people have a dream to achieve higher education as well as high profile jobs and career or profession. So, the scope of higher education is an important factor for enrolling any education track. As a tool of career path, VE must be needed a smooth and attractive academic line like general education. But, in Bangladesh, it is not clear and not sufficient. In this context, the researcher tried to justify

the cause 9 (The scope of higher education is limited) whether influences to the less enrolment in VE or not.

It has been shown that there are 35.0% students were agreed with this cause. But, there are 64.4% Trade instructors, 47.1% Head teachers/Principals and 56.4% guardians and social leaders were also agreed to the same cause (Table 6.6).

In the Case of Students

In this context, the researcher has tried to show the associations between the cause 9 (Scope of higher education is limited) of less enrolment and socio-demographic characteristics of the students.

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analyses are presented in Table 6.41:

Table 6.41: Associations between the cause of less enrolment in VE and socio-demographic factors of students ($n = 500$)

Independent factors (Student)	Scope of higher education is limited is a cause of less enrolment in VE		χ^2 value	p - value
	Yes (%)	No (%)		
Age (in years)				
13 - 15	111 (37.10)	188 (62.90)	0.753	0.385
16 - 20	67 (33.30)	134 (66.70)		
Gender				
Male	77 (29.30)	186 (70.70)	9.674	0.002
Female	101 (42.60)	136 (57.40)		
Education class				
IX	98 (34.30)	188 (65.70)	0.519	0.471
X	80 (37.40)	134 (62.60)		
Father's education				
Illiterate	20 (38.50)	32 (61.50)	3.962	0.411
Primary	69 (33.80)	135 (66.20)		
Secondary	54 (33.80)	106 (66.20)		
Higher secondary	18 (50.00)	18 (50.00)		
Degree and above	17 (35.40)	31 (64.60)		
Mother's education				
Illiterate	18 (42.90)	24 (57.10)	2.823	0.420
Primary	86 (34.40)	164 (65.60)		
Secondary	57 (33.50)	113 (66.50)		
Higher secondary	17 (44.70)	21 (55.30)		
Father's occupation				
Service	32 (38.10)	52 (61.90)	7.717	0.052
Agriculture	63 (43.20)	83 (56.80)		
Business	48 (28.40)	121 (71.60)		
Others	35 (34.70)	66 (65.30)		
Mother's occupation				
Housewife	168 (35.90)	300 (64.10)	0.827	0.661
Service	6 (37.50)	10 (62.50)		
Others	4 (25.00)	12 (75.00)		
Monthly family income (Tk.)				
≤ 5000	96 (36.40)	168 (63.60)	5.401	0.249
5001 - 10000	33 (28.40)	83 (71.60)		
10001 - 15000	23 (41.10)	33 (58.90)		
15001 - 20000	16 (47.10)	18 (52.90)		
>20000	10 (33.30)	20 (66.70)		
District				
Rajshahi	79 (31.70)	170 (68.30)	4.856	0.088
Bogra	60 (42.90)	80 (57.10)		
Natore	39 (35.10)	72 (64.90)		
Institution's type				
Government	83 (34.20)	160 (65.80)	2.034	0.362
Non govt. MPO	79 (38.90)	124 (61.10)		
NGO	16 (29.60)	38 (70.40)		

Note: VE: Vocational Education, MPO: Monthly Payment Order, NGO: Non Government Organization

The results of bivariate analysis revealed that the respondent's gender, father's occupation and district were statistically significantly associated with cause 9. The female students were more agreed than male students with this cause 9. The students whose father's occupations are agriculture were more agreed with this cause than the students whose father's occupations are service, business and others. The students of Bogra district were more agreed than others two districts Natore and Rajshahi (Table 6.41).

Results of the Multivariate Analysis

The results of the binary logistic regression model are presented in Table 6.42:

Table 6.42: Effects of socio-demographic factors of students on the cause 9 of less enrolment in VE

Independent factor (Student)	B	S.E	Wald	<i>p</i> value	Odds ratio (OR)	95% CI for OR	
						Lower	Upper
Gender							
Male					1.00		
Female	0.729	0.204	12.719	0.000	2.073	1.389	3.095
Father's occupation							
Service					1.00		
Agriculture	0.314	0.291	1.166	0.280	1.369	0.774	2.419
Business	-0.388	0.286	1.833	0.176	0.679	0.387	1.190
Others	0.028	0.314	0.008	0.928	1.029	0.556	1.904
District							
Rajshahi					1.00		
Bogra	0.589	0.229	6.621	0.010	1.802	1.151	2.823
Natore	0.308	0.265	1.349	0.245	1.361	0.809	2.290

Note: VE: Vocational Education

In logistic regression analysis, the respondent's gender and district were statistically significant predictors for this cause. In this case, gender and district had a similar relationship with this cause 9. In this cause, female students were 2.073 times (OR = 2.073, 95% CI = 1.389-3.095) more likely to be agreed with this cause than male students. Students of Bogra district were 1.802 times (OR = 1.802, 95% CI = 1.511-2.823) more likely to be agreed with this cause than those of Rajshahi district (Table 6.42).

In the Case of Trade instructors

Among the Trade instructors who have been given opinion about this cause, 47 Trade instructors (64.4%) were agreed with this cause. On the other hand, 26 Trade instructors (35.6%) were disagreed to the same (Table 6.6).

In the Case of Head teachers/Principals

There are 20 respondents in Head teachers/Principals group in three districts of Rajshahi Division. 17 Head teachers/Principals have been given opinion about this cause. Among them, 8 Head teachers/Principals (47.1%) were agreed with this cause. On the other hand, 9 Head teachers/Principals (52.9%) were disagreed with the same (Table 6.6). So, it is concluded that majority of Head teachers/Principals in all districts do not support this comment as a cause of less enrolment in VE.

In the Case of Guardians and Social leaders

Among the 142 guardians and social leaders, 117 respondents have been given opinion about this cause. Among them (117 out of 142), 66 respondents (56.4%) were agreed with this cause. On the other hand, 41 respondents (35.0%) were disagreed with the same and 10 respondents (8.5%) were replied that they do not know about this matter (Table 6.6). In this context, the researcher has tried to show the associations between cause 9 and socio-demographic characteristics of the guardians and social leaders.

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analyses are presented in Table 6.43:

Table 6.43: Associations between the cause 9 of less enrolment in VE and socio-demographic factors of guardians and social leaders ($n = 117$)

Independent factors (Guardian and social leader)	Scope of higher education is limited is a cause of less enrolment in VE		χ^2 value	p - value
	Yes (%)	No (%)		
Age (in years)				
18 - 39	32(52.5)	29(47.5)	0.809	0.368
≥ 40	34(60.7)	22(39.3)		
Gender				
Male	40(50.6)	39(49.4)	3.302	0.069
Female	26(68.4)	12(31.6)		
Type of respondents				
Guardians	28(63.6)	16(36.4)	1.498	0.221
Social leaders	38(52.1)	35(47.9)		

Note: VE: Vocational Education

The results of bivariate analysis revealed that respondent's gender was statistically significantly associated with cause 9. The female guardians and social leaders were more agreed with this cause than male guardians and social leaders (Table 6.43).

Results of the Multivariate Analysis

The results of the binary logistic regression model are presented in Table 6.44:

Table 6.44: Effects of socio-demographic factors guardians and social leaders on the cause 9 of less enrolment in VE

Independent factor (Guardian and Social leader)	B	S.E	Wald	p value	Odds ratio (OR)	95% CI for OR	
						Lower	Upper
Gender							
Male					1.00		
Female	0.748	0.415	3.244	0.072	2.112	0.936	4.767

Note: VE: Vocational Education

In logistic regression analysis, respondent's gender was statistically significant predictors for this cause. In this case, respondent's gender had a similar relationship with this cause. In this cause,

female guardians and social leaders were 2.112 times (OR = 2.112, 95% CI = 0.936-4.767) more likely to be agreed with this cause than the male guardians and social leaders (Table 6.44).

6.1.1.1.10 Cause 10: Absence of Vocational Course in Nearest Institutions

Availability of VE course is the most important factor for enrolling in VE. Girls are faced great obstacles to receive education from long distant institutions and it is a reality in the rural areas. For this reason, many students especially female students dropped from schools and do not think to take VE in spite of fulfilling criteria to enter in VE. In this context the researcher tried to justify that the absence of VE course in nearest institutions whether influences to the less enrolment in VE or not.

In this study it has been shown that there are 53.2% students were agreed with this cause and most of the Trade instructors (67.1%), Head teachers/Principals (58.8%) and guardians and social leaders (53.0%) were also agreed to the same cause (Table 6.6).

In the Case of Students

In this context, the researcher has tried to show the associations between the cause 10 of less enrolment and socio-demographic characteristics of the students.

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analyses are presented in Table 6.45:

Table 6.45: Associations between the cause 10 of less enrolment in VE and socio-demographic factors of students ($n = 500$)

Independent factors (Student)	Absence of VE course in nearest institutions is a cause of less enrolment in VE		χ^2 value	p - value
	Yes (%)	No (%)		
Age (in years)				
13 - 15	154 (51.50)	145 (48.50)	0.858	0.354
16 - 20	112 (55.70)	89 (44.30)		
Gender				
Male	137 (52.10)	126 (47.90)	0.274	0.601
Female	129 (54.40)	108 (45.60)		
Education class				
IX	142 (49.70)	144 (50.30)	3.382	0.066
X	124 (57.90)	90 (42.10)		
Father's education				
Illiterate	21 (40.40)	31 (59.60)	9.707	0.046
Primary	113 (55.40)	91 (44.60)		
Secondary	83 (51.90)	77 (48.10)		
Higher secondary	16 (44.40)	20 (55.60)		
Degree and above	33 (68.80)	15 (31.20)		
Mother's education				
Illiterate	15 (35.70)	27 (64.30)	6.300	0.098
Primary	141 (56.40)	109 (43.60)		
Secondary	89 (52.40)	81 (47.60)		
Higher secondary	21 (55.30)	17 (44.70)		
Father's occupation				
Service	45 (53.60)	39 (46.40)	1.095	0.778
Agriculture	82 (56.20)	64 (43.80)		
Business	85 (50.30)	84 (49.70)		
Others	54 (53.50)	47 (46.50)		
Mother's occupation				
Housewife	251 (53.60)	217 (46.40)	1.679	0.432
Service	9 (56.20)	7 (43.80)		
Others	6 (37.50)	10 (62.50)		
Monthly family income (Tk.)				
≤ 5000	129 (48.90)	135 (51.10)	11.385	0.023
5001 - 10000	68 (58.60)	48 (41.40)		
10001 - 15000	37 (66.10)	19 (33.90)		
15001 - 20000	13 (38.20)	21 (61.80)		
>20000	19 (63.30)	11 (36.70)		
District				
Rajshahi	127 (51.00)	122 (49.00)	2.257	0.324
Bogra	82 (58.60)	58 (41.40)		
Natore	57 (51.40)	54 (48.60)		
Institution's type				
Government	132 (54.30)	111 (45.70)	1.630	0.443
Non govt. MPO	102 (50.20)	101 (49.80)		
NGO	32 (59.30)	22 (40.70)		

Note: VE: Vocational Education, MPO: Monthly Payment Order, NGO: Non Government Organization

The results of bivariate analysis revealed that the respondent's education class, father's education, mother's education and monthly family income were statistically significantly associated with the cause 10. The students of class X were more agreed with this than the students of class X. The students whose fathers are illiterate were less agreed with this cause than the students whose fathers educated. Here it is also revealed that the students whose fathers are as more as higher educated they were more agreed with this cause. The students whose mothers are illiterate were less agreed with this cause. The students whose monthly family incomes are 10001-15000 were more agreed with this cause (Table 6.45).

Results of the Multivariate Analysis

The results of the binary logistic regression model are presented in Table 6.46:

Table 6.46: Effects of socio-demographic factors of students on the cause 10 of less enrolment in VE

Independent factor (Student)	B	S.E	Wald	<i>p</i> value	Odds ratio (OR)	95% CI for OR	
						Lower	Upper
Class (Study level)							
IX					1.00		
X	0.291	0.192	2.296	0.130	1.338	0.918	1.949
Father's education							
Illiterate					1.00		
Primary	0.276	0.364	0.575	0.448	1.318	0.646	2.689
Secondary	0.130	0.380	0.116	0.733	1.139	0.540	2.400
Higher secondary	-0.026	0.505	0.003	0.959	0.974	0.362	2.619
Degree and above	1.089	0.521	4.364	0.037	2.973	1.070	8.261
Mother's education							
Illiterate					1.00		
Primary	0.665	0.397	2.799	0.094	1.944	0.892	4.236
Secondary	0.443	0.426	1.083	0.298	1.558	0.676	3.590
Higher secondary	0.143	0.568	0.064	0.801	1.154	0.379	3.514
Monthly family income (Tk.)							
≤ 5000					1.00		
5001 - 10000	0.377	0.236	2.560	0.110	1.458	0.919	2.314
10001 - 15000	0.599	0.320	3.495	0.062	1.820	0.971	3.409
15001 - 20000	-0.562	0.406	1.908	0.167	0.570	0.257	1.269
>20000	0.512	0.428	1.429	0.232	1.668	0.721	3.862

Note: VE: Vocational Education

In logistic regression analysis, the respondent's father's education, mother's education and monthly family income were statistically significant predictors for this cause. In this case, father's education, mother's education and monthly family income had a similar relationship with this cause 10. In this cause, students whose father's education are degree level and above were 2.973 times (OR = 2.973, 95% CI = 1.070-8.261) more likely to be agreed with this cause than those fathers are illiterate. Students whose mother's education are primary level were 1.944 times (OR = 1.944, 95% CI = 0.592 -4.236) more likely to be agreed than the students whose mothers are illiterate. Students whose monthly family income ranges in 10001-15000 were 1.820 times (OR = 1.820, 95% CI = 0.971-3.409) more likely to be agreed with this cause than those monthly families' income are ≤ 5000 (Table 6.46).

In the Case of Trade instructors

Among the Trade instructors who have been given opinion about this cause, 49 Trade instructors (67.1%) were agreed with this cause. On the other hand, 24 Trade instructors (32.9%) were disagreed to the same (Table 6.6).

In the Case of Head teachers/Principals

There are 20 respondents in Head teachers/Principals group in three districts of Rajshahi Division. 17 Head teacher/Principals have been given opinion about this cause. Among them, 10 Head teachers/Principals (58.8%) were agreed with this cause. On the other hand, 7 Head teachers/Principals (41.2%) were disagreed with the same (Table 6.6). So, it is concluded that majority of Head teacher/Principals in all districts support this cause as a cause of less enrolment in VE.

In the Case of Guardians and Social leaders

Among the 142 guardians and social leaders, 117 respondents have given opinion about this cause. Among the respondents (117 out of 142), 62 respondents (53.0%) were agreed with this cause. On the other hand, 42 respondents (35.9%) were disagreed with the same and 13 respondents (11.1%) were replied that they do not know about this matter (Table 6.6). In this context, the researcher has tried to show the associations between the cause 10 and socio-demographic characteristics of the guardians and social leaders.

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analyses are presented in Table 6.47:

Table 6.47: Associations between the cause 10 of less enrolment in VE and socio-demographic factors of guardians and social leaders ($n = 117$)

Independent factors (Guardian and social leader)	Absence of VE course in nearest institutions is a cause of less enrolment in VE		χ^2 value	p - value
	Yes (%)	No (%)		
Age (in years)				
18 - 39	25(41.0)	36(59.0)	7.377	0.007
≥ 40	37(66.1)	19(33.9)		
Gender				
Male	42(53.2)	37(46.8)	0.003	0.957
Female	20(52.6)	18(47.4)		
Type of respondents				
Guardians	25(56.8)	19(43.2)	0.415	0.520
Social leaders	37(50.7)	36(49.3)		

Note: VE: Vocational Education

The results of bivariate analysis revealed that respondent's age was statistically significantly associated with cause 10. The guardians and social leaders whose ages are 40 and above were more agreed than the guardians and social leaders whose ages are 18-39 years (Table 6.47).

Results of the Multivariate Analysis

The results of the binary logistic regression model are presented in Table 6.48:

Table 6.48: Effects of socio-demographic factors guardians and social leaders on the cause 10 of less enrolment in VE

Independent factor (Guardian and Social leader)	B	S.E	Wald	<i>p</i> value	Odds ratio (OR)	95% CI for OR	
						Lower	Upper
Age (in years)							
18 - 39					1.00		
≥ 40	1.031	0.384	7.211	0.007	2.804	1.321	5.952

Note: VE: Vocational Education

In logistic regression analysis, respondent's age was statistically significant predictors for this cause. In this case, respondent's age had a similar relationship with this cause. In this cause, the guardians and social leaders whose ages are 40 years and above were 2.804 times (OR = 2.804, 95% CI = 1.321-5.952) more likely to agree with this cause than those whose ages are 18-39 years (Table 6.48).

6.1.1.2 Low Quality of SSC (Voc)

The quality education is a burning question in Bangladesh. All educational sectors are in front of this mega challenge of quality education. Quantity of any kind of education is now ensured and achieved but quality is a question at the present situation. Quality of general education, madrasah education, VTE all are debating issues. Result, pass rate and admission test are influencing peoples confusion about quality of teaching and learning of all sectors of education. The VE also has a sizeable pass rate but graduates are how much able to show his/her skill better or not, it is the question of quality. Society and job markets think, VE is not exist in satisfactory condition in all aspects. In this study the researcher tried to justify the perception of the stakeholders about the quality of VE. Most of the Trade instructors (56.2%) were agreed with the comment 'SSC (Voc) course are qualitative' but almost all Head teachers/Principals (85.0%) and

most of the guardians and social leaders (76.1%) were not agreed with the same comment (Table 6.49).

Table 6.49: Opinion about quality of SSC (Voc) course

Opinion	Trade instructor (n=80)		Head teacher /Principal (n=20)		Guardian & Social leader (n=142)	
	Yes	No	Yes	No	Yes	No
Do you feel the SSC (Voc) is qualitative?	45 (56.2)	35 (43.8)	3 (15.0)	17 (85.0)	34 (23.9)	108 (76.1)

Note: Percentage shown in parenthesis

6.1.1.2.1 Causes of Low Quality of Vocational Education

In this study the researcher is conducted a pilot survey to know the perception of selected group of respondents about various situation of VE. The literature survey also gave an important idea about the limitations, problems and prospects of VE. According to literature and pilot survey the researcher outlining the valuable causes liable to less quality of VE. The study exposed the causes like a) Lack of skilled/trained teacher or instructor b) Shortage or insufficient classrooms c) Shortage of labs/instruments d) lack of practical experiences e) lack sincerity and regularity of teacher and instructor f) lack of students own sincerity g) lack of guardians consciousness and help h) lack of monitoring of head of institutions i) insufficient and weak syllabus j) trades are not appropriate for job market k) comparatively weak students admit in VE, etc. In the following table the respondents whose were agreed with low quality of VE, their opinion have been discussed (Table 6.50).

Table 6.50: Causes of low quality of SSC (Voc) course

Comments	Trade teacher (n=35)		Head teacher /Principal (n=17)		Guardian/Social Leader (n=108)		
	Yes	No	Yes	No	Yes	No	Do not know
Lack of skilled trained teacher/instructor	34 (97.1)	1 (2.9)	16 (94.1)	1 (5.9)	89 (82.4)	19 (17.6)	0 (0.0)
Shortage/insufficient class room	31 (88.6)	4 (11.4)	10 (58.8)	7 (41.2)	83 (76.9)	24 (22.2)	1 (0.9)
Lack of lab and instruments	35 (100.0)	0 (0.0)	16 (94.1)	1 (5.9)	98 (90.7)	9 (8.3)	1 (0.9)
Lack of practical experiences	31 (88.6)	4 (11.4)	13 (76.5)	4 (23.5)	92 (85.2)	15 (13.9)	1 (0.9)
Lack of sincerity and regularity of teacher	20 (57.1)	15 (42.9)	8 (47.1)	9 (52.9)	72 (66.7)	26 (24.1)	10 (9.3)
Lack of students own sincerity	33 (94.3)	2 (5.7)	14 (82.4)	3 (17.6)	82 (75.9)	19 (17.6)	7 (6.5)
Lack of guardians consciousness and help	32 (91.4)	3 (8.6)	14 (82.4)	3 (17.6)	77 (71.3)	28 (25.9)	3 (2.8)
Lack of monitoring of head of institution	17 (48.6)	18 (51.4)	6 (35.3)	11 (64.7)	77 (71.3)	27 (25.0)	4 (3.7)
Insufficient and weak syllabus	16 (45.7)	19 (54.3)	5 (29.4)	12 (70.6)	66 (61.1)	32 (29.6)	10 (9.3)
Trades are not appropriate for job market	20 (57.1)	15 (42.9)	11 (64.7)	6 (35.3)	59 (54.6)	39 (36.1)	10 (9.3)
Comparatively weak students admit in VE	34 (97.1)	1 (2.9)	14 (82.4)	3 (17.6)	82 (75.9)	19 (17.6)	7 (6.5)

Note: percentage shown in parenthesis

6.1.1.2.1.1 Lack of Skilled/Trained Instructor

In this study, among the respondents who were agreed about the low quality of VE, there are almost all Trade instructors (97.1%), Head teachers/Principals (94.1%) and guardians and social leaders (82.4%) were agreed with the lack of skilled/trained teacher or instructor is a cause for low quality of VE (Table 6.50).

6.1.1.2.1.2 Shortage or Insufficient of Classrooms

The study also revealed that among the respondents, who were agreed about the low quality of VE, there are almost all Trade instructors (88.6%), most of the Head teachers/Principals (58.8%) and guardians and social leaders (76.9%) were agreed with shortage or insufficient of class rooms is a cause for low quality of VE (Table 6.50).

6.1.1.2.1.3 Lack of Labs and Instruments

Labs or instruments are the very necessary study materials and facilities for VE. In this study the respondents who were agreed with low quality of VE, among them there are all Trade instructors (100.0%), almost all Head teachers/Principals (94.1%) and guardians and social leaders (90.7%) were agreed with the comment lack of labs or instruments is a cause of low quality of VE (Table 6.50).

6.1.1.2.1.4 Lack of Practical Experience

Lack of practical experiences is an important cause of low quality of VE. There are almost all Trade instructors (88.6%), most of the Head teachers/Principals and almost all guardians and social leaders (85.2%) were agreed with this opinion is a cause of low quality of VE (Table 6.50) because of VE is basically work based and training oriented hand on job nature. So, practical skill is a must in this type of education.

6.1.1.2.1.5 Lack of Sincerity and Regularity of Teacher and Instructor

There are most of the Trade instructors (57.1%) and guardians and social leaders (66.7%) were agreed with the cause lack of sincerity and regularity of the teacher or instructors for less quality of VE but most of the Head teachers/Principals (52.9%) were not agreed with the same (Table 6.50).

6.1.1.2.1.6 Lack of Students' Own Sincerity

It is the very important cause of low quality VE. Students of vocational course are comparatively low meritorious and various problematic, for this reason, they are not enough sincere towards study activities. As a result, the learning performance is always low graded in VE. In this study,

there are almost all Trade instructors (94.3%), Head teachers/Principals (82.4%) and most of the guardians and social leaders (75.9%) were agreed with this cause (Table 6.50).

6.1.1.2.1.7 Lack of Guardian Consciousness and Help

Guardian consciousness and help also are very important factors for quality assurance of VE. In most of the cases, guardian does not take care enough for vocational course students for their fixed mind setting that VE student are actually weak, so their learning will be minimum and low graded. The finding also proved this idea that there are almost all Trade instructors (91.4%), Head teachers/Principals (82.4%) and most of the guardians and social leaders (71.3%) were agreed with this cause for low quality of VE (Table 6.50).

6.1.1.2.1.8 Lack of Monitoring of Head of Institutions

Monitoring always need for proper output. In institutional level, monitoring of head institutions are motivated all kind of workers and labor force for better output of this organization. In educational institutions, it is must and very important for better teaching–learning activities. The institutions where SSC (voc) course are attached with general education, there vocational course might be affected by negligence. Proper monitoring of the head of institutions is only the solution for quality achievement. The study revealed that there are most of the Trade instructors (51.4%) and Head teachers/Principals (64.7%) were disagreed with this cause but on the other hand most of the guardians and social leaders (71.3%) were agreed with the lack of monitoring of head of institutions is the cause of low quality VE (Table 6.50).

6.1.1.2.1.9 Insufficient and Weak Syllabus

In this study, most of the Trade instructors (54.3%) and Head teachers/Principals (70.6%) were disagreed with the cause insufficient and weak syllabus but on the other hand most of the guardians and social leaders (61.1%) were agreed with the same (Table 6.50). This cause was not strongly supported by the respondent.

6.1.1.2.1.10 Trades are not appropriate for Job Market

The study findings also exposed that this cause were not strongly liable for low quality of VE. There are 57.1% Trade instructors, 64.3% Head teachers/Principals and 54.6% guardians and social leaders were agreed with this cause for low quality of VE (Table 6.50).

6.1.1.2.1.11 Comparatively Weak Students admit in Vocational Education

It is one of the great purpose of VE that weak and drop-out students are entered in VE for its work based nature and large demand of job market for skilled manpower. Higher education and managerial jobs always based on merit and limited scope which is not suitable for weak and low meritorious students. So, it is reality that student of VE is comparatively weak and low meritorious and that's why it has a negative effect of providing quality education. This study also revealed that 97.1% Trade instructors, 82.4% Head teachers/Principals and 75.9% guardians and social leaders were agreed with this cause for low quality of VE (Table 6.50).

6.1.1.3 Negligence and Non Cooperation from Others

The study has revealed that social attitude is very important factor for VE. Negative social attitude neglect the VE. For this reason, students of vocational courses are suffered non co-operation and negligence from the society. There are 83.1% guardian and social leaders think that students of VE face negligence and non-co-operation from others for receiving VE. There are 75.0% Head teachers/Principals, 73.8% Trade instructors and 41.2% students were agreed with the sufferings for admitting in the VE (Table 6.51).

Table 6.51: Negligence/Non co-operation about VE

Comments	Student (n=500)		Trade instructor (n=80)		Head teacher /Principal (n=20)		Guardian & Social leader (n=142)	
	Yes	No	Yes	No	Yes	No	Yes	No
Negligence/Non co-operation from others for receiving VE	206 (41.2)	294 (58.8)	59 (73.8)	21 (26.2)	15 (75.0)	5 (25.0)	118 (83.1)	26 (16.9)

Note: Percentage shown in parenthesis

The subject of analysis of this section was whether the students suffer negligence/non cooperation from others for admitting in VE or not. To assess the condition of negligence/non cooperation from others the respondents answered in a dichotomous form as (i) Yes (coded 1) (ii) No (coded 0).

The discussion performed some statistical analysis like bivariate analysis (χ^2 test) to determine the associations among the variables and binary logistic regression analysis (multivariate analysis) to determine the relative effects of the independent variables to the dependent variables. To examine the relationship between the negligence from others about VE (response variable) and socio-demographic characteristics (explanatory variables) of the respondents, both qualitative and quantitative statistics were applied here. For statistical analyses, negligence about VE was made a binary response.

In the Case of Students

In this context, the researcher has tried to show the associations between the negligence about VE and socio-demographic characteristics of the students. For bivariate analysis (χ^2 test), the study used 10 socio-demographic (explanatory) variables with categories (shown in parenthesis): age (in years) (13-15, 1; 16-20, 2); education class (IX, 1; X, 2); gender (male, 1; female, 2); father's education (illiterate, 1; primary, 2; secondary, 3; higher secondary, 4; degree and above, 5); mother's education (illiterate, 1; primary, 2; secondary, 3; higher secondary, 4); father's occupation (service, 1; agriculture, 2; business, 3; others, 4); mother's occupation (housewife, 1; service, 2; others, 3); monthly income (≤ 2000 , 1; 2001-5000, 2; 5001-10000, 3; 10001-15000, 4; 15001-20000, 5; > 20000 , 6); district (Rajshahi, 1; Bogra, 2; Natore, 3); institutions (Government, 1; MPO listed, 2; NGO owned, 3). The binary logistic regression models were fitted for negligence from others for admitting in VE to identify the determinants among the respondent. In logistic regression analysis, Negligence about of VE (Y) is treated as the dependent variable and other variables (X_i , $i = 1, 2, 3 \dots 10$) treated as independent variables. In this model, the dependent variables (Y) are classified in the following manner:

$$\text{Model: } Y = \begin{cases} 1; \text{ the society neglects VE students,} \\ 0; \text{ Otherwise.} \end{cases}$$

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analyses are presented in Table 6.52:

Table 6.52: Association between the negative attitude (society neglects VE students) towards VE and socio-demographic factors of students ($n = 500$)

Independent factors (Student)	Society neglects VE students		χ^2 value	p - value
	Yes (%)	No (%)		
Age (in years)				
13 – 15	124(41.5)	175(58.5)	0.023	0.880
16 – 20	82(40.8)	119(59.2)		
Gender				
Male	106(40.3)	157(59.7)	0.184	0.668
Female	100(42.2)	137(57.8)		
Education class				
IX	114(39.9)	172(60.1)	0.495	0.482
X	92(43.0)	122(57.0)		
Father's education				
Illiterate	27(51.9)	25(48.1)	16.556	0.002
Primary	65(31.9)	139(68.1)		
Secondary	70(43.8)	90(56.2)		
Higher secondary	22(61.1)	14(38.9)		
Degree and above	22(45.8)	26(54.2)		
Mother's education				
Illiterate	25(59.5)	17(40.5)	9.351	0.025
Primary	97(38.8)	153(61.2)		
Secondary	64(37.6)	106(62.4)		
Higher secondary	20(52.6)	18(47.4)		
Father's occupation				
Service	30(35.7)	54(64.3)	9.532	0.023
Agriculture	73(50.0)	73(50.0)		
Business	71(42.0)	98(58.0)		
Others	32(31.7)	69(68.3)		
Mother's occupation				
Housewife	191(40.8)	277(59.2)	0.583	0.747
Service	7(43.8)	9(56.2)		
Others	8(50.0)	8(50.0)		
Monthly family income (Tk.)				
≤ 5000	113(42.80)	151(57.20)	2.733	0.603
5001 - 10000	41(35.3)	75(64.7)		
10001 - 15000	26(46.4)	30(53.6)		
15001 - 20000	13(38.2)	21(61.8)		
>20000	13(43.3)	17(56.7)		
District				
Rajshahi	79(31.7)	170(68.3)	18.421	0.000
Bogra	70(50.0)	70(50.0)		
Natore	57(51.4)	54(48.6)		
Institution's type				
Government	87(35.8)	156(64.2)	22.050	0.000
Non govt. MPO	107(52.7)	96(47.3)		
NGO	12(22.2)	42(77.8)		

Note: VE: Vocational Education, MPO: Monthly Payment Order, NGO: Non Government Organization

The results of bivariate analysis revealed that the respondent's father's education, mother's education, father's occupation, district and institutions were statistically significantly associated with the negligence/non-cooperation from others for admitting in VE. The students whose father's educations are higher secondary level were more agreed with the negative attitude negligence from others for receiving VE. The students whose mother educations are illiterate were more agreed with the same. It is also revealed that the students whose father's occupations are agriculture were more agreed with the same. Students of Natore district and students of non-government MPO listed institutions were more agreed with this negligence and non-co-operation from others about VE (Table 5.52).

Results of the Multivariate Analysis

The results of the binary logistic regression model are presented in Table 6.53:

Table 6.53: Effects of socio-demographic factors of students on negative attitude towards VE

Independent factor (Student)	β	S.E	Wald	<i>p</i> value	Odds ratio (OR)	95% CI for OR	
						Lower	Upper
Father's education							
Illiterate					1.00		
Primary	-0.378	0.378	1.000	0.317	0.685	0.326	1.438
Secondary	0.270	0.402	0.453	0.501	1.310	0.596	2.881
Higher secondary	0.988	0.552	3.207	0.073	2.686	0.911	7.920
Degree and above	0.563	0.536	1.102	0.294	1.756	0.614	5.021
Mother's education							
Illiterate					1.00		
Primary	-0.721	0.410	3.093	0.079	0.486	0.217	1.086
Secondary	-0.964	0.441	4.784	0.029	0.381	0.161	0.905
Higher secondary	-0.611	0.571	1.144	0.285	0.543	0.177	1.663
Father's occupation							
Service					1.00		
Agriculture	0.800	0.356	5.040	0.025	2.226	1.107	4.477
Business	0.520	0.321	2.620	0.106	1.683	0.896	3.160
Others	0.305	0.362	0.714	0.398	1.357	0.668	2.757
District							
Rajshahi					1.00		
Bogra	0.423	0.244	2.997	0.083	1.526	0.946	2.462
Natore	0.418	0.264	2.510	0.113	1.519	0.906	2.547
Institution's type							
Government					1.00		
Non govt. MPO	0.417	0.213	3.833	0.050	1.517	1.000	2.302
NGO	-0.404	0.384	1.105	0.293	0.668	0.315	1.418

Note: VE: Vocational Education, MPO: Monthly Payment Order, NGO: Non Government Organization

In logistic regression analysis, the respondent's father's education, mother's education, father's occupation, district and institution types were statistically significant predictors for the negligence and non-cooperation from others about VE. In this case, the father's education and occupation, district and institutions had a similar relationship with this negligence and non-cooperation. On the other hands, mother's education had an inverse relationship with this. In this case, the students whose father's education are higher secondary level were 2.686 times (OR = 2.686, 95% CI = 0.911-7.920) more likely to be agreed with this negligence and non-cooperation than those fathers are illiterate. The students whose mother's education are primary and secondary level were 0.486 times (OR = 0.486, 95% CI = 0.217-1.086) and 0.381times (OR = 0.381, 95% CI = 0.161-0.905) less likely to be agreed with this negligence and non-cooperation than those mothers are illiterate. The students whose father's occupation are agriculture were 2.226 times (OR = 2.226, 95% CI = 1.107-4.477) more likely to be agreed with this negligence and non-co-operation than those father's occupation are service. Student of Bogra district were 1.593 times (OR = 0.947-2.678) more likely to be agreed with this negligence and non-co-operation than the students of Rajshahi district and the students of non-government MPO listed institutions were 1.517 times (OR = 1.517, 95% CI = 1.000-2.302) more likely to be agreed with this negligence and non-co-operation than students of government institutions (Table 6.53).

In the Case of Trade instructors

There are 80 respondents in Trade instructors group in three districts of Rajshahi Division. Among them, 59 Trade instructors (73.8%) were agreed to the negligence and non-cooperation from others about admitting in VE. On the other hand, 21 Trade instructors (26.2%) were disagreed to the same (Table 6.51). So, it is clear that the Trade instructors were strongly

supported the opinion that students faced negligence and non-cooperation from others for admitting in VE.

In the Case of Head teachers/Principals

There are 20 respondents in Head teachers/Principals group in three districts of Rajshahi Division. Among them, 15 Head teachers/Principals (75.0%) were agreed with the negligence for admitting in VE. On the other hand, 5 Head teachers (25.0%) were disagreed with the same (Table 6.51). So, it is concluded that Head teachers/Principals in all districts support this negligence that faced the students for admitting in VE.

In the Case of Guardians and Social leaders

In this context, the researcher has tried to show the association between negligence about VE that faced VE students and socio-demographic characteristics of the guardians and social leaders.

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analyses are presented in Table 6.54:

Table 6.54: Association between the negative attitude towards VE and socio-demographic factors of guardians and social leaders ($n = 142$)

Independent factors (Guardian and social leader)	Consistency of SSC (Voc) course with social and state need		χ^2 value	p - value
	Yes (%)	No (%)		
Age (in years)				
18 – 39	59(80.80)	14(19.2)	0.554	0.457
≥ 40	59(85.5)	10(14.5)		
Gender				
Male	83(84.70)	15(15.30)	0.573	0.449
Female	35(79.50)	9(20.50)		
Type of respondents				
Guardians	49(96.10)	2(3.90)	9.546	0.002
Social leaders	69(75.80)	22(24.20)		

Note: VE: Vocational Education

The results of bivariate analysis revealed that respondent's subtype were statistically significantly associated with negligence about VE. It has been seen that the guardians were more agreed with this negligence and non-co-operation than social leaders (Table 6.54).

Results of the Multivariate Analysis

The results of the binary logistic regression model are presented in Table 6.55:

Table 6.55: Effects of socio-demographic factors of guardians and social leaders on the negative attitude towards VE

Independent factor (Guardian and SL)	β	S.E	Wald	<i>p</i> value	Odds ratio (OR)	95% CI for OR	
						Lower	Upper
Type of respondents							
Guardians					1.00		
Social leaders	-2.056	0.762	7.281	0.007	0.128	0.029	0.570

Note: VE: Vocational Education

In logistic regression analysis, the respondent's subtype was statistically significant predictors for the negligence and non-cooperation from others about VE. In this case, the respondent's subtype had an inverse relationship with this negligence and non-cooperation. In this case, the social leaders were 0.128 times (OR = 0.128, 95% CI = 0.029-0.570) less likely to be agreed with this negligence and non-co-operation than the guardians (Table 6.55).

6.1.1.4 Influence of Social Custom, Myth Etc.

Our thousand old societies hold various social and cultural custom, myth etc. for its various race people living with happy and prosperous life. People of particular race think that some kinds of jobs and professions are only for them. On the other hand, other races think that some particular jobs and professions are not prestigious for them and they never try to learn or to enter that professions or jobs. Some social traditional values discourage the work based jobs as low graded and low prestigious work. For this reason, VE is not desirable education for the different race of people in Bangladesh and so, the VE students are victimized as negligence in the society. In this

study, almost all students (81.1%) were agreed that it is a cause of negligence to the VE student. Almost all Trade instructors (86.4%) and guardians and social leaders (84.7%) also were agreed that VE students suffer negligence because of its influence of social custom, myth etc. But, most of the Head teachers/Principals (53.3%) were agreed that it is true and for this reason, the student of VE faces the negligence from the society (Table 6.56).

Table 6.56: Causes of negligence/non co-operation

Comments	Student (n=206)		Trade instructor (n=59)		Head teacher /Principal (n=15)		Guardian & Social leader (n=118)	
	Number (%)	Number (%)	Number (%)	Number (%)	Number (%)	Number (%)	Number (%)	Number (%)
	Yes	No	Yes	No	Yes	No	Yes	No
Influence of social custom, myth etc.	167 (81.1)	39 (18.9)	51 (86.4)	8 (13.6)	8 (53.3)	7 (46.7)	100 (84.7)	18 (15.3)

The subject of analysis of this section was whether the students influenced by the social custom, myth, etc for entering in VE or not. To assess the influence the respondents answered in a dichotomous form as (i) Yes (coded 1) (ii) No (coded 0).

The discussion performed some statistical analysis like bivariate analysis (χ^2 test) to determine the associations among the variables and binary logistic regression analysis (multivariate analysis) to determine the relative effects of the independent variables to the dependent variables. To examine the relationship between influence of social custom, myth etc. and (response variable) and socio-demographic characteristics (explanatory variables) of the respondents, both qualitative and quantitative statistics were applied here. For statistical analyses, influence of social custom and myth etc. were made a binary response.

In the Case of Students

Among the 500 students, 206 respondents have been given opinion about this matter. Among them, there are 167 students (81.1%) were agreed with the comment influence of social custom, myth, etc. as a cause of negligence of VE students. On the other hand, 39 students (18.9%) were disagreed with the same (Table 6.2). In this context, the researcher has tried to show the association between the influence of social custom, myth etc. and socio-demographic characteristics of the students. For bivariate analysis (χ^2 test) the study used 10 (Ten) socio-demographic (explanatory) variables with categories (shown in parenthesis): age (in years) (13-15, 1; 16-20, 2); education class (IX, 1; X, 2); gender (male, 1; female, 2); father's education (illiterate, 1; primary, 2; secondary, 3; higher secondary, 4; degree and above, 5); mother's education (illiterate, 1; primary, 2; secondary, 3; higher secondary, 4); father's occupation (service, 1; agriculture, 2; business, 3; others, 4); mother's occupation (housewife, 1; service, 2; others, 3); monthly income (≤ 2000 , 1; 2001-5000, 2; 5001-10000, 3; 10001-15000, 4; 15001-20000, 5; > 20000 , 6); district (Rajshahi, 1; Bogra, 2; Natore, 3); institutions (Government, 1; MPO listed, 2; NGO owned, 3). The binary logistic regression models were fitted for influence of social custom, myth etc to identify the determinants among the respondent. In logistic regression analysis, influence of social custom, myth, etc. (Y) are treated as the dependent variable and other variables (X_i , $i = 1, 2, 3 \dots 10$) treated as independent variables. In this model, the dependent variables (Y) are classified in the following manner:

$$\text{Model: } Y = \begin{cases} 1; \text{ social customs, myth, etc. influence for entering in VE,} \\ 0; \text{ Otherwise.} \end{cases}$$

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analyses are presented in Table 6.57:

Table 6.57: Associations between the influence of social customs, myth, etc. for less enrolment in VE and socio-demographic factors of students ($n = 206$)

Independent factors (Student)	Social customs, myth, etc. have influence for entering in VE		χ^2 value	p - value
	Yes (%)	No (%)		
Age (in years)				
13 – 15	102(82.3)	22(17.7)	0.287	0.592
16 – 20	65(79.3)	17(20.7)		
Gender				
Male	90(84.9)	16(15.1)	2.095	0.148
Female	77(77.0)	23(23.0)		
Education class				
IX	96(84.2)	18(15.8)	1.643	0.200
X	71(77.2)	21(22.8)		
Father's education				
Illiterate	21(77.8)	6(22.2)	1.868	0.760
Primary	50(76.9)	15(23.1)		
Secondary	58(82.9)	12(17.1)		
Higher secondary	19(86.4)	3(13.6)		
Degree and above	19(86.4)	3(13.6)		
Mother's education				
Illiterate	21(84.0)	4(16.0)	2.075	0.557
Primary	76(78.4)	21(21.6)		
Secondary	55(85.9)	9(14.1)		
Higher secondary	15(75.0)	5(25.0)		
Father's occupation				
Service	24(80.0)	6(20.0)	3.116	0.374
Agriculture	63(86.3)	10(13.7)		
Business	57(80.3)	14(19.7)		
Others	23(71.9)	9(28.1)		
Mother's occupation				
Housewife	154(80.6)	37(19.4)	1.851	0.396
Service	7(100.0)	0(0.0)		
Others	6(75.0)	2(25.0)		
Monthly family income (Tk.)				
≤ 5000	90(79.6)	23(20.4)	3.909	0.418
5001 - 10000	36(87.8)	5(12.2)		
10001 - 15000	20(76.9)	6(23.1)		
15001 - 20000	9(69.2)	4(30.8)		
>20000	12(92.3)	1(7.7)		
District				
Rajshahi	55(69.6)	24(30.4)	15.586	0.000
Bogra	57(81.4)	13(18.6)		
Natore	55(96.5)	2(3.5)		
Institution's type				
Government	68(78.2)	19(21.8)	0.829	0.661
Non govt. MPO	89(83.2)	18(16.8)		
NGO	10(83.3)	2(16.7)		

Note: VE: Vocational Education, MPO: Monthly Payment Order, NGO: Non Government Organization

The results of bivariate analysis revealed that the respondent's district was statistically significantly associated with the influence of social custom, myth, etc. for admitting in VE. In this study it has been seen that the students of Natore district were more agreed with this comment than other two districts Bogra and Rajshahi (Table 6.57).

Results of the Multivariate Analysis

The results of the binary logistic regression model are presented in Table 6.58:

Table 6.58: Effects of socio-demographic factors of students on the influence of social customs, myth, etc. for less enrolment

Independent factor (Student)	β	S.E	Wald	<i>p</i> value	Odds ratio (OR)	95% CI for OR	
						Lower	Upper
District							
Rajshahi					1.00		
Bogra	0.649	0.393	2.728	0.099	1.913	0.886	4.132
Natore	2.485	0.760	10.682	0.001	12.000	2.704	53.252

Note: VE: Vocational Education

In logistic regression analysis, the respondent's district was statistically significant predictors for the influence of social custom, myth, etc. for admitting in VE. In this case, the respondent's district had a similar relationship with this influence. In this case, the students of Bogra and Natore district were 1.913 times (OR = 1.913, 95%CI = 0.886-4.132) and 12.000 times (OR = 12.000, 95% CI = 2.704-53.252) more likely to be agreed with this influence of social custom, myth, etc. than students of Rajshahi district (Table 6.58).

In the Case of Trade instructors

There are 80 respondents in trade teacher/instructor group in three districts of Rajshahi Division. 59 respondents have been given opinion about the matter. Among the trade instructors/instructors respondent 51 trade instructors (86.4%) are agreed with the comment influence of social custom, myth etc as a cause of negligence to the VE students in three districts of Rajshahi Division. On the other hands among the trade instructors 8 (13.6%) trade instructors

are disagreed to the same (Table 6.56). So, it is concluded that trade teacher respondents in all districts strongly support this comment as a cause of negligence to the student of VE

In the Case of Head teachers/Principals

There are 20 respondents in head teacher group in three districts of Rajshahi Division. 15 respondents have been given opinion about this comment. Among the head teacher respondents there are 8 Head teachers/Principals (53.3%) are agreed with the comment influence of social custom, myth etc as a cause of negligence to the VE students in three districts of Rajshahi Division. On the other hands among the Head teachers/Principals 7 (46.7%) Head teachers/Principals are disagreed with the same (Table 6.56). So, it is concluded that head teacher respondents in all districts slightly support this comment as a cause of negligence to the student of VE.

In the Case of Guardians and Social leaders

Among the 142 guardians and social leaders respondents 118 respondents have given opinion about this matter. Among them there are 100 respondents (84.7%) are agreed with the comment influence of social custom, myth etc as a cause of negligence to the VE students. On the other hand among the respondents 18 respondents (15.3%) are disagreed to the same (Table 6.56). In this context, the researcher has tried to show the association between the influences of social custom, myth, etc. that faced students for admitting in VE and socio-demographic characteristics of the guardians and social leaders.

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analyses are presented in Table 6.59:

Table 6.59: Association between the influence of social customs, myth, etc. for less enrolment in VE and socio-demographic factors of guardians and social leaders ($n = 118$)

Independent factors (Guardian and social leader)	Social customs, myth, etc. have influence for entering in VE		χ^2 value	p - value
	Yes (%)	No (%)		
Age (in years)				
18 – 39	47(79.7)	12(20.3)	2.360	0.129
≥ 40	53(89.8)	6(10.2)		
Gender				
Male	71(85.5)	12(14.5)	0.137	0.711
Female	29(82.9)	6(17.1)		
Type of respondents				
Guardians	48(98.0)	1(2.0)	11.318	0.001
Social leaders	52(75.4)	17(24.6)		

Note: VE: Vocational Education

The results of bivariate analysis revealed that respondent's subtype were statistically significantly associated with the influence of social custom, myth, etc. for admitting in VE. It has been seen that the guardians were more agreed with this influence than the social leaders (Table 6.59).

Results of the Multivariate Analysis

The results of the binary logistic regression model are presented in Table 6.60:

Table 6.60: Effects of socio-demographic factors guardians and social leaders on the influence of social customs, myth etc for less enrolment in VE

Independent factor (Guardian and SL)	β	S.E	Wald	p value	Odds ratio (OR)	95% CI for OR	
						Lower	Upper
Type of respondents							
Guardians					1.00		
Social leaders	-2.753	1.048	6.848	0.009	0.064	0.008	0.497

Note: VE: Vocational Education

In logistic regression analysis, the respondent's subtype was statistically significant predictors for the influence of social custom, myth, etc. admitting in VE. In this case, the respondent's subtype had an inverse relationship with this influence. Here, the social leaders were 0.064 times (OR = 0.064, 95% CI = 0.008-0.497) less likely to be agreed with this influence than the guardians (Table 6.60).

6.1.1.5 Neighbors do not take it Praise Worthy

Desire of praising is natural and forever in human being. All men became happy and amusing if they get prize or praise from any corner for their performance. Educational life also may be a factor of praise worthy if it holds a high probability of job and professional career. Neighbors criticize or praise if the children get a chance to enter stagnant or prospective educational course. VE till now considered as a course of weak and drop-out students. So, parents think that it is not a matter of praise worthy to the neighbors. For this reason, VE is not desirable education for the students and VE students are victimized as negligence in the society. In this study, there are almost all students (87.9%) were agreed that it is a cause of negligence to the VE student. There are all Trade instructors (100.0%) and almost all guardians and social leaders (89.8%) were also agreed that VE students suffer negligence because of neighbors do not take it praises worthy. Most of the Head teachers/Principals (60.0%) were also agreed that it is true (Table 6.61).

Table 6.61: Causes of negligence/non co-operation

Comments	Student (n=206)		Trade instructor (n=59)		Head teacher /Principal (n=15)		Guardian & Social leader (n=118)	
	Yes	No	Yes	No	Yes	No	Yes	No
Neighbors do not take it praise worthy	181 (87.9)	25 (12.1)	59 (100.0)	0 (0.0)	9 (60.0)	6 (40.0)	106 (89.8)	12 (10.2)

Note: Percentage shown in parenthesis

The subject of analysis of this section was whether the students do not feel neighbors praise worthy or not for admitting in VE. To assess the feelings about praise worthiness of neighbors the respondents answered in a dichotomous form as (i) Yes (coded 1) (ii) No (coded 0).

The discussion performed some statistical analysis like bivariate analysis to determine the association among the variables and binary logistic regression analysis (multivariate analysis) to determine the relative effect of the independent variables to the dependent variables. To examine the relationship between not praise worthiness of neighbors for admitting in VE (response variable) and socio-demographic characteristics (explanatory variables) of the respondents, both qualitative and quantitative statistics were applied here. For statistical analyses, not praise worthiness of neighbors for admitting in VE was made a binary response.

In the Case of Students

Among the 500 students, 206 respondents have been given opinion about this matter. Among them, 181 students (87.9%) were agreed with the comment neighbors do not take it praises worthy as a cause of negligence to the VE students. On the other hand, 25 students (12.1%) were disagreed to the same (Table 5.39). In this context, the researcher has tried to show the associations between the not praise worthiness of neighbors for admitting in VE and socio-demographic characteristics of the students. For bivariate analysis (χ^2 test) the study used 10 socio-demographic (explanatory) variables with categories (shown in parenthesis): age (in years) (13-15, 1; 16-20, 2); education class (IX, 1; X, 2); gender (male, 1; female, 2); father's education (illiterate, 1; primary, 2; secondary, 3; higher secondary, 4; degree and above, 5); mother's education (illiterate, 1; primary, 2; secondary, 3; higher secondary, 4); father's occupation (service, 1; agriculture, 2; business, 3; others, 4); mother's occupation (housewife, 1; service, 2; others, 3); monthly income (≤ 2000 , 1; 2001-5000, 2; 5001-10000, 3; 10001-15000, 4; 15001-20000, 5; > 20000 , 6); district (Rajshahi, 1; Bogra, 2; Natore, 3); institutions (Government, 1; MPO listed, 2; NGO owned, 3). The binary logistic regression models were fitted for not praise worthiness of neighbors for admitting in VE to identify the determinants

among the respondent. In logistic regression analysis, not praise worthiness of neighbors (Y) are treated as the dependent variable and other variables (X_i , $i = 1, 2, 3 \dots 10$) treated as independent variables. In this model, the dependent variables (Y) are classified in the following manner:

Model:
$$Y = \begin{cases} 1; & \text{the neighbors do not take it (admitting in VE) praise worthy,} \\ 0; & \text{Otherwise.} \end{cases}$$

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analyses are presented in Table 6.62:

Table 6.62: Association between socio-demographics factors of students and neighbors do not take it (admitting in VE) praise worthy ($n = 206$)

Independent factors (Student)	Neighbors do not take it (admitting in VE) praise worthy		χ^2 value	p - value
	Yes (%)	No (%)		
Age (in years)				
13 – 15	108(87.1)	16(12.9)	0.172	0.678
16 – 20	73(89.0)	9(11.0)		
Gender				
Male	92(86.8)	14(13.2)	0.235	0.628
Female	89(89.0)	11(11.0)		
Education class				
IX	98(86.0)	16(14.0)	0.863	0.353
X	83(90.2)	9(9.8)		
Father's education				
Illiterate	23(85.2)	4(14.8)	0.454	0.978
Primary	57(87.7)	8(12.3)		
Secondary	62(88.6)	8(11.4)		
Higher secondary	20(90.9)	2(9.1)		
Degree and above	19(86.4)	3(13.6)		
Mother's education				
Illiterate	21(84.0)	4(16.0)	0.962	0.810
Primary	87(89.7)	10(10.3)		
Secondary	55(85.9)	9(14.1)		
Higher secondary	18(90.0)	2(10.00)		
Father's occupation				
Service	26(86.7)	4(13.3)	1.793	0.616
Agriculture	65(89.0)	8(11.0)		
Business	64(90.1)	7(9.9)		
Others	26(81.2)	6(18.8)		
Mother's occupation				
Housewife	170(89.0)	21(11.0)	3.248	0.197
Service	5(71.4)	2(28.6)		
Others	6(75.0)	2(25.0)		
Monthly family income (Tk.)				
≤ 5000	99(87.6)	14(12.4)	2.540	0.637
5001 - 10000	35(85.4)	6(14.6)		
10001 - 15000	22(84.6)	4(15.4)		
15001 - 20000	12(92.3)	1(7.7)		
>20000	13(100.0)	0(0.0)		
District				
Rajshahi	64(81.0)	15(19.0)	11.654	0.003
Bogra	60(85.7)	10(14.3)		
Natore	57(100.0)	0(0.0)		
Institution's type				
Government	70(80.5)	17(19.5)	8.981	0.011
Non govt. MPO	101(94.4)	6(5.6)		
NGO	10(83.3)	2(16.7)		

Note: VE: Vocational Education, MPO: Monthly Payment Order, NGO: Non Government Organization

The results of bivariate analysis revealed that the respondent's institutions type were statistically significantly associated with the not praise worthiness of neighbors for admitting in VE. It has been seen that the students of non-government MPO listed institutions were more agreed with this opinion than the students of government and NGO listed institutions (Table 5.62).

Results of the Multivariate Analysis

The results of the binary logistic regression model are presented in Table 6.63:

Table 6.63: Effects of socio-demographic factors of students on neighbors do not take it praise worthy (admitting in VE)

Independent factor (Student)	β	S.E	Wald	<i>p</i> value	Odds ratio (OR)	95% CI for OR	
						Lower	Upper
Institution's type							
Government					1.00		
Non govt. MPO	1.123	0.527	4.552	0.033	3.075	1.096	8.631
NGO	0.486	0.842	0.334	0.564	1.626	0.312	8.475

Note: VE: Vocational Education

In logistic regression analysis, the respondent's institutions were statistically significant predictors for the not praise worthiness of neighbors for admitting in VE. In this case, the respondent's institutions had a similar relationship with this not praise worthiness of neighbors. In this case, students of MPO listed institutions were 3.075 times (OR = 3.075, 95%CI = 1.096-8.631) more likely to be agreed with this opinion of not praise worthiness than students of government institutions (Table 6.63).

In the Case of Trade instructors

There are 80 respondents in Trade instructors group in three districts of Rajshahi Division. 59 Trade instructors have been given opinion about this comment. All Trade instructors (100.0%) were agreed with this comment 'neighbors do not take it praise worthy' (Table 6.61).

In the Case of Head teachers/Principals

There are 20 respondents in Head teachers/Principals group in three districts of Rajshahi Division. 15 respondents have been given opinion about this comment. Among them, 9 Head teachers/Principals (60.0%) were agreed with the comment ‘neighbors do not take it praise worthy’. On the other hand, 6 Head teachers/Principals (40.0%) were disagreed with the same (Table 6.61). So, it is concluded that Head teachers/Principals in all districts slightly support this comment.

In the Case of Guardians and Social leaders

Among the 142 guardians and social leaders, 118 respondents have given opinion about this comment. Among them, 106 respondents (89.8%) are agreed with the comment neighbors do not take it praises worthy. On the other hand, 12 respondents (10.2%) were disagreed to the same (Table 6.61). In this context, the researcher has tried to show the associations between the opinion ‘neighbors do not take it (admitting in VE) praise worthy’ and socio-demographic characteristics of the guardians and social leaders.

Results of the Bivariate Analysis

The results of the bivariate (χ^2 test) analyses are presented in Table 6.64:

Table 6.64: Association between the comment neighbors do not take it praise worthy (Admitting in VE) and socio-demographic factors of guardians and social leaders ($n = 118$)

Independent factors (Guardian and social leader)	Neighbors do not take it (admitting in VE) praise worthy		χ^2 value	p - value
	Yes (%)	No (%)		
Age (in years)				
18 – 39	50(84.7)	9(15.3)	3.340	0.068
≥ 40	56(94.9)	3(5.1)		
Gender				
Male	76(91.6)	7(8.4)	0.923	0.337
Female	30(85.7)	5(14.3)		
Type of respondents				
Guardians	46(93.9)	3(6.1)	1.502	0.220
Social leaders	60(87.0)	9(13.0)		

Note: VE: Vocational Education

The results of bivariate analysis revealed that respondent's age were statistically significantly associated with the opinion 'neighbors do not take praise worthy admitting in VE'. It has been seen that the guardians and social leaders whose ages are 40 years and above were more agreed with the opinion 'neighbors do not take it (admitting in VE) praise worthy' than the guardians and social leaders whose ages are 18-39 years (Table 6.64).

Results of the Multivariate Analysis

The results of the binary logistic regression model are presented in Table 6.65:

Table 6.65: Effects of socio-demographic factors guardians and social leaders on the comment neighbors do not take it (admitting in VE) praise worthy

Independent factor (Guardian and SL)	β	S.E	Wald	p value	Odds ratio (OR)	95% CI for OR	
						Lower	Upper
Age (in years)							
18 – 39					1.00		
≥ 40	1.212	0.694	3.045	0.081	3.360	0.861	13.106

Note: VE: Vocational Education

In logistic regression analysis, the respondent's age were statistically significant predictors for the not praise worthiness of neighbors for admitting in VE. In this case, the respondent's age had

a similar relationship with this not praise worthiness of neighbors. In this case, the guardians and social leaders whose ages are 40 years and above were 3.360 times (OR = 3.360, 95% CI = 0.861-13.106) more likely to be agreed with this opinion of not praise worthiness than the guardians and social leaders whose ages are 18-39 years (Table 6.65).

6.1.1.6 Social Awareness

The SSC (Voc) course is comparatively newly introduced course in the secondary level education. In some cases, it is not available in nearest institutions. People do not know enough about this course. Sometimes the researcher found that people could not imagine that this type of course may be attached in general secondary education. They think that this is a special type of course, so it is run by special type of vocational institutions. The Government has introduced vocational courses especially for weak and drop-out students like other development countries because of low qualities general higher educated person are over flowed in Bangladesh which is not desirable, reasonable and suitable for economy and society, and in the present context of Bangladesh, VE is the demandable and very much suitable for job market and industries need but the scenario is quite opposite. The researcher observed that gap of proper information and knowledge about VE. The people do not enter this education as targeted rate of the government. In this study the researcher justified the same idea by the questioner survey in three categories selected respondents like vocational Trade instructors, Head teachers/Principals and guardians and social leaders. The study has revealed that almost all vocational Trade instructors (93.7%), Head teachers/Principals (90.0%) and guardians and social leaders (90.1%) were agreed that people has strongly lack of idea, knowledge, information and consciousness about VE (Table 6.66).

Table 6.66: Lack of people`s idea and consciousness about VE

Comments	Trade instructor (n=80)		Head teacher /Principal (n=20)		Guardian & Social Leader (n=142)	
	Yes	No	Yes	No	Yes	No
Lack of people`s idea and consciousness about VE	74 (93.7)	6 (6.3)	18 (90.0)	2 (10.0)	128 (90.1)	14 (9.9)

Note: Percentage shown in parenthesis

So, it is concluded that a strong lacking is present in our society about prosperity and need of VE; as a result VE suffers low enrolment till now in spite of existing high drop-out rates in secondary level general and madrashah education.

6.1.1.7 Low Salary of Teacher/Instructor

The minimum educational qualification of vocational course teachers/Trade instructors is diploma degree in related trade. In Bangladesh, a diploma holder in any technical trade may get a job as a sub-assistant position in government sectors. On the other hand, a diploma holder generally gets a middle class job with remarkable salary in any private or non government organization. Non government independent and attached vocational institute teachers/Trade instructors who are MPO listed only get the basic pay and silly other allowances which very low in monetary figure. In some cases, where MPO are in under processed, there teachers/Trade instructors have no salary for employment; they have only hope for future award and encashment or employment. It is a hard reality and this reality is common in the most of vocational institutions. The researcher assumed that for this reason VE suffers many kinds of negligence in respect of low salary or no salary of teachers/Trade instructors and the adverse effect of it is low quality of VE. In this context, the researcher tried to know the respondent`s attitude about this issue there are 77.5% Trade instructors and 95.0% Head teachers/Principals were agreed about this comment that low salary structure and non MPO situation of VE is an important problem

(Table 6.67). It discouraged the well trained person to join in VE as a teacher/instructor and it is very much liable for low quality of VE.

Table 6.67: Comment about Salary structure of Trade instructor

Question	Opinion	
	Number (%)	Number (%)
	Yes	No
Trade instructor (n=80)		
Salary structure is an important problem in the developing way of the vocational educated employee? Do you agree with this statement?	62(77.5)	18(22.5)
Head teacher (n=20)		
For appointing skilled teachers need well salary but salary scale of trade teacher/instructor is not well enough. So in spite of existing sufficient vocational institutions (govt. and non govt.) in our country do not increase skilled manpower. Do you agree about this opinion?	19(95.0)	1(5.0)

Note: Percentage shown in parenthesis

So, it is concluded that a well-paid salary structure of teacher/instructor need for quality VE and at present its absence is a major problem of VE.

6.1.1.8 Academic Obstructions

Academically many kinds of problems exist in VE. Among these, problems of teaching are remarkable. In this study, the researcher investigated the fields of teaching problems and collected opinion about these contexts from the related selected Trade instructor. Firstly, the researcher asked the respondents that whether they feel any problem about teaching and learning or not. In this context, there are 68.8% Trade instructors were said that they feel some problems about the same (Table 6.68).

Table 6.68: Existing academic problems

Trade instructor (n=80)		
Question	Opinion	
	Yes	No
Have you faced any problem during teaching in VE?	55(68.8)	25(31.2)

Note: Percentage shown in parenthesis

In all contexts of problems, respondents were agreed that obstacles for teaching are exist in various dimensions. Among them (55 out of 80), Most of the Trade instructors (78.2%) were

agreed that teachers/instructors are not enough competent to conduct practical class, 60.0% were said that teachers/instructors have lacking pedagogical knowledge to teach lesson fruitfully, 69.1% were said that teachers/instructors are not updated with contemporary trade related knowledge, 90.9% were agreed that students have lacking intention to learn towards trade related works, 96.4% were agreed that lack of labs/instruments/materials of related trades are the problems of good teaching in vocational course (Table 6.69).

Table 6.69: Types of problems about teaching

Trade instructor (n=55)		
Comments	Opinion	
	Yes	No
Lack of practical skill of teacher	43(78.2)	12(21.8)
Lack pedagogical knowledge of teacher	33(60.0)	22(40.0)
Lack of trade related contemporary knowledge	38(69.1)	17(30.9)
Lack of intention of students towards trade related work	50(90.9)	5(9.1)
Lack of lab/instruments/materials of related trade	53(96.4)	2(3.6)

Note: Percentage shown in parenthesis

The researcher also investigated the learning related problems and collected opinion from Trade instructors. The respondents were given opinion about the matter which is presented in the following table (Table 6.70). In this study, it is exposed that trade related practical exercise does not conduct sufficiently as need as which is commented by the 77.5% Trade instructors. There are 78.8% Trade instructors were agreed that shortage of skill instructors is common feature of VE institutions and it is influenced the learners towards little learning. In Bangladesh, socio-economic condition is not good and also the same in nature in the most places. Besides, in the rural area and illiterate family students do not get any help in their house about their lesson and in most of the cases till remaining absence of helping environment. For this reason, students cannot learn enough and do not became enough skill in their trades. There are 95.0% Trade instructors were agreed about this issue and it is a great obstacle for proper learning in VE. There are 85.0% Trade instructors were commented that weak primary and lower secondary education

also liable for low learning in VE because of their very raw skill and perception of for learning SSC level subject matter. Lack of guardian's awareness about VE and weak meritorious student also the great cause of low learning in VE because of there are 97.5% respondents were also agreed with these comments and it is known to all that it is true reality (Table 6.70).

Table 6.70: Problems about study content for student learning

Trade instructor (n=80)		
Comments	opinion	
	Yes	No
Lack of trade related practical exercise	62(77.5)	18(22.5)
Lack of skill teacher and instructor	63(78.8)	17(21.2)
Student do not get help in their house about their lesson and absence of helping environment	76(95.0)	4(5.0)
Weak primary and lower secondary education	68(85.0)	12(15.0)
Lack guardians awareness about VE	78(97.5)	2(2.5)
Weak meritorious students, so they cannot learn well		

Note: Percentage shown in parenthesis

6.1.1.9 Low Entrance of Girls

The VE is very much suitable for drop-out students to stay in education field and for achieving skill to enter job markets or self-employed activities. A large number of female students dropped-out from schools every year but they do not enter in VE. The girl enrolment situation is comparatively poor in VE for various reasons. In this study the researcher assumed the three cases namely, child marriage, religious restrictions and social myth and idioms. In the rural areas child marriage is a great cause of drop out from general education and for this reason they do not enter in VE though it is also very suitable for married women. In our society, the reality is that young house wife have enough leisure time after doing his household activities and they have enough ability to work and learn any kind of earning tasks for enriching their families' income. But the social and religious restrictions are discouraged them to take opportunity of learning and earning. Sometimes many families are suffered from economic crisis but for the social and religious restrictions the girls or housewives cannot avail opportunity to admit in VE or any other

scope of skill training to earn something for their families. Social myth and idioms are also the strong constraint of girl entering in VE and training as well as any earning activities. Though this situation is changing in recent times by dint of expansion of female education and women empowerment by giving some quota facilities but in this context has a scope to run thousands miles yet. So, the researcher investigated that the above constraints troubled how much to enter in VE. This study has revealed that there are 93.8% Trade instructors, 80.0% Head teachers/Principals and 85.2% guardians and social leaders were agreed with the cause child marriage is an obstacle for low entrance of girls in VE. The study also revealed that there are 52.5% Trade instructors, 50.0% Head teachers/Principals and 73.2% guardians and social leaders were agreed that religious restrictions also an obstacle to enter girls in VE. Social myth and idioms also a great cause of girls less entrance in VE that there are 76.2% Trade instructors, 75.0% Head teachers/Principals and 85.2% guardians and social leaders were agreed with this cause. So, it is concluded that child marriage and social myth and idioms are strong constraint of girl's entrance in VE but religious restrictions slightly dominate it (Table 6.71).

Table 6.71: Obstacles for girls in low entrance in VE

Comments	Trade instructor (n=80)		Head teacher /Principal (n=20)		Guardian & Social leader (n=142)	
	Yes	No	Yes	No	Yes	No
Child marriage	75 (93.8)	5 (6.2)	16 (80.0)	4 (20.0)	121 (85.2)	21 (14.8)
Religious restrictions	42 (52.5)	38 (47.5)	10 (50.0)	10 (50.0)	104 (73.2)	38 (26.8)
Social myth and idioms	61 (76.2)	19 (23.8)	15 (75.0)	5 (25.0)	122 (85.2)	20 (14.1)

Note: Percentage shown in parenthesis

6.1.1.10 Negative Social Values

It is the value of the society that the vocational trades that are similar to the other traditional cast professions (like kamar, kumar, ghosh, tanti etc.) have negative tendency to learning and somebody feel it dishonorable for the reason of religious and cast values in our rural society. It is seemed that some professions are only for Hindus or other casts. Muslims or others cast do not

feel interest to learn same type trades learning nor do not want to enter these types of professions. So, it created one kind of problem that the skilled workers or expertise do not develop in a competent way and it does not develop as a vocational trades or commercial basis but that is remaining limited in the fixed cast as unchanged formed from generation to generation. For this reason, some traditional trades are going to lose their reputation and business forever. To return the great traditional reputation for some traditional trades (like tanti as garments, ghosh as food processing and preservation, etc.) will have to reformed the trades lesson as competent and demand oriented for new generation and also will have to change the mind of the society for learning the trades and entering into these professions freely and prestigiously. In this context, the researcher asked the Head teachers/Principals and guardians and social leaders that how they feel about this issue. There are 75.0% Head teachers/Principals and 74.6% guardians and social leaders were agreed with this issue that negative social values are influenced strongly not to enter some vocational profession (Table 6.72).

Table 6.72: Negative social values

Comments	Head teacher /Principal (n=20)		Guardian & Social leader (n=142)	
	Yes	No	Yes	No
It is the value of the society that negative tendency of learning other cast vocational trade (like kamar, kumar, tanti etc) or feeling it dishonorable to learn for the reason of religious and cast values in our rural society. So, it is a problem to create skill of that vocational trade which is remaining limited in the fixed cast from generation to generation. Do you agree with this opinion?	15 (75.0)	5 (25.0)	106 (74.6)	36 (25.4)

Note: Percentage shown in parenthesis

6.1.1.11 Challenges like Indecision, etc.

Various sectors like services, industries and others in Bangladesh are suffering shortage of skilled manpower. On the other hand a large number of general educated people in all levels are unemployed and they do not know which jobs are specifically fit for them. So, in one side suffers lack of skilled manpower and on the other sides are jobless, this is the real picture of Bangladesh. One of the solutions of this paradox is VE but it does not occur. In this situation, the researcher investigated the causes why the VE do not become popular than the general education. In this study the researcher assumed a cause that in VE, profession might be fixed in the starting of education like electrical or civil engineering trades. It is difficult to settle profession at early age for guardians or students. So, it is an obstacle for enrolment of VE. There are 70.0% Head teachers/Principals and 84.5% guardians and social leaders were agreed with this opinion. On the other hand, it is no need to settle profession earlier in general education. After completing the education has enough scope to enter multifarious job like low, middle and high level though it is difficult to manage or achieve but intention of high level profession and open opportunity students remain in general education, they do not want to admit in VE. In this study, there are almost all Head teachers/Principals (85.0%) and guardians and social leaders (88.7%) were agreed with this opinion. The researcher also assumed a cause that parents feel only weak students admit in VE and their opportunity and hierarchy of higher education are limited. So, they do not send their children in VE. The study revealed that there are almost all Head teachers/Principals (95.0%) and guardians and social leaders (90.1%) were agreed with this opinion. Another assumption of the researcher as a cause of low enrolment is lack of sufficient institutions in local area. It is supported by the 90.0% Head teachers/Principals and 83.8%

guardians and social leaders (Table 6.73). So, it is concluded that government has enough liability to formulate policy to overcome the odd situation of low enrolment of VE.

Table 6.73: Probability and suitability of getting job by VE

Question				
Various sectors also with industries in Bangladesh suffer shortage of skilled manpower. On the other hand, a large number of general educated people in all levels are unemployed and they do not know which jobs are specially fit for them. So, in one side suffers lack of skilled manpower and on the other sides are jobless, this is the real picture of Bangladesh. It's one of the solution is VE but it does not occur. In this situation, do you agree to the following comments-?				
Answer	Respondent			
	Head teacher /Principal (n=20)		Guardian & Social leader (n=142)	
	Yes	No	Yes	No
In the starting of education, profession is fixed at VE. It is difficult to settle profession earlier for guardian or students. So it is an obstacles for enrollment of VE	14 (70.0)	6 (30.0)	120 (84.5)	22 (15.5)
It is no need to settle profession in earlier stage at general education. After completing the education, has scope of multifarious job though it is difficult to manage but intention of high level profession and open opportunity students remain in general education	17 (85.0)	3 (15.0)	126 (88.7)	16 (11.3)
It is not enough prestigious because society feel that only weak student admit in VE and their opportunity and hierarchy are limited	19 (95.0)	1 (5.0)	128 (90.1)	14 (9.9)
Lack of higher education in related trade	16 (80.0)	4 (20.0)	118 (83.1)	24 (16.9)
Lack of sufficient institutions in local area	18 (90.0)	2 (10.0)	119 (83.8)	23 (16.2)

Note VE: Vocational Education, Note: Percentage shown in parenthesis

6.1.2 Expected Steps from the Government and Authority

In this study the researcher tried to know the opinion from Trade teacher, Head teachers/Principals and guardians and social leaders among the respondent about the steps what should be done by the government or the authority of VE. The researcher has designed some assumed opinions and open opinions about the remedy of low enrolment in VE. The assumed opinions are the following:

6.1.2.1 Career Counseling

Govt. can be formulated policy to be done career counseling by their concern authorities. It should be regular works and it might be weighted the most to create awareness among the students, parents, teachers and other related stakeholders and it might be done in level to level

and level by level. BTEB and DTE may be the concern authority to perform these tasks. In this study, the researcher collected the opinion about this and there are 100.0% Trade instructors, 70.0% Head teachers/Principals and 95.8% guardian and social leaders are agreed with this opinion (Table 6.74). So, it is concluded that it may be the possible solution of low enrolment.

Table 6.74: Steps to increase people awareness about VE

Comments	Trade instructor (n=80)		Head teacher /Principal (n=20)		Guardian & Social leader (n=142)	
	Yes	No	Yes	No	Yes	No
Carrier counseling may be done among the students by the initiative of BTEB and DTE	80 (100.0)	0 (0.0)	14 (70.0)	6 (30.0)	136 (95.8)	6 (4.2)
It can be done to realize people that VE is an instrument of creating employments and entrepreneurs by the involvement of public representatives in school activities	77 (96.2)	3 (3.8)	17 (85.0)	3 (15.0)	128 (90.1)	14 (9.9)
Teachers can play the vital role	78 (97.5)	2 (2.5)	19 (95.0)	1 (5.0)	128 (90.1)	14 (9.9)
Govt. can instruct the schools to advertise in admissible season by the poster, handbills, brochure, road show, myking etc	80 (100.0)	0 (0.0)	13 (65.0)	7 (35.0)	127 (89.4)	15 (10.5)
BTEB, DTE, MOE and MOLE may be advertised jointly/singly using by Radio, TV, and Billboard	77 (96.2)	3 (3.8)	16 (80.0)	4 (20.0)	130 (91.5)	12 (8.5)
For creating awareness in school level may be form a committee by participating students, teachers and guardians by leading an energetic teacher and should monitoring the activities of that committee by the authority	77 (96.2)	3 (3.8)	18 (90.0)	2 (10.0)	131 (92.3)	11 (7.7)

Note: VE: Vocational Education, Percentage shown in parenthesis

6.1.2.2 Involvements of Public Representatives

Public representatives always play a vital and contributory role in our society. Peoples give honor and follow them in any circumstances and their suggestion and instructions are implemented by the people in many aspects. For development and increasing enrolment of VE their involvements may be brought fruitful results. In the field of self-employments and creating various employment scopes in VE may be a useful instruments in our country. It is the point of advertisement to gather the public's knowledge and information which may be successful by the involvements of public's representatives. The researcher assumed the cause and the study

revealed that there are 96.2% Trade instructors, 85.0% Head teachers/Principals and 90.1% guardians and social leaders are agreed with this opinion (Table 6.74). So, it is strongly commented that involvements of public representatives is an effective way of development of VE.

6.1.2.3 Teachers Role

In this study the all selected respondents are agreed that teachers can play a vital role to increase enrolment and development of VE because of their direct involvement and nurse of this education and their respective position in the society. Teachers are treated as educated person in the rural society and they have direct influence to the students and their parents. Teacher's suggestions and instructions are followed by the students and parents in maximum context and many other case people come to the teachers for educational opinion purpose. So, if the teachers are assigned by the proper authority for counseling and admitting the students in vocational course it may be very effective for enrolment and teacher's integrity to the VE must be prospective for VE. In this study there are 97.5% Trade instructors, 95.0% Head teachers/Principals and 90.1% guardian and social leaders are agreed with this comment (Table 6.74). Hence it is the strongly accepted way to develop VE.

6.1.2.4 Instrumental Advertisement by the Institutions

The researcher has assumed the step that the Govt. can instructs the institutions to advertise in admissible season by the poster, handbill, brochure, signboard, road show, tape recording etc. In this study it is revealed that there are 100.0% trade instructors, 65.0% head teachers and 89.4% guardians and social leaders are agreed with this type of advertisements for awareness building and knowledge gathering of students and guardians of the society (Table 5.74). According to the comments it is obviously effective for the people awareness for VE.

6.1.2.5 Instrumental Advertisement by the Higher Authority

The regulatory authority of the vocational institutions like MOE, MOLE, DTE, and BTEB may be advertised jointly or singly using by Radio, TV, Newspaper, Billboard etc for expansion and awareness building to the peoples about VE. They also may be arranged seminar, symposium, education fair, quiz competition, entrepreneurship fair etc for creating popularity of VE. The respondents are strongly agreed with this opinion realizing the importance of its. There are 96.2% Trade instructors, 80.0% Head teachers/Principals and 91.5% guardians and social leaders are commented the positive about the importance of it (Table 6.74).

6.1.2.6 Forming Committee by Students, Teachers and Guardians Jointly

It also may be played important role to achieving goal and target to enroll in VE and to develop VE in satisfactory level in every aspects formatting committee by students, teachers and guardians jointly. Under the proper monitoring by the respective authority, the committee will be very effective tools to form VE as a needful education system for now days. In recent years the Bangladesh need a large number of skill work forces for its up growing industries sectors, to tackle unemployment problems and creating unlimited probability of creative entrepreneurship, to use scope of export skilled manpower to abroad and utilize girls workforce properly, VE may be the most powerful tools and means to imply that and this type of committee formatting steps may be the proper action to implement the target. In this study it is revealed the same thinking by the 96.2% of Trade instructors, 90.0% Head teachers/Principals and 92.3% guardians and social leader's comments (Table 6.74).

CHAPTER SEVEN

Vocational Education and Its Prospects

7. Introduction

The VE is very important for Bangladesh as a developing country. It has a large number of populations. The main stream of education is general education where a large number of graduates are unemployed. On the other hand, a large number of drop-out students also unemployed here. They enter in the job market as unskilled labor and a part of them also migrated abroad as unskilled labor force which is a great problem of Bangladesh. Another great problem of Bangladesh is shortage of skilled labor force. In one side surplus manpower and in other side is shortage, a paradox is occurring in Bangladesh. The solution of this situation is well known that is introducing and expanding VTE. Many countries of the world are overcoming this situation by strengthening their VTE. So, in Bangladesh, it is very much prospectus and needful for developing manpower as skilled labor force but it is newly introduced and it has enough scope to take development initiatives. In this regards, VE is treated as much prospectus and well fitted education system of Bangladesh. The situation is changing rapidly and has a golden future of Bangladesh. In this study, the researcher tried to find out the prospects of VE to develop the nation by contributing skilled manpower. The study identified some important fields of VE to develop the manpower as skilled for demand of locally and abroad is shown in the following:

7.1 Importance of Vocational Education

7.1.1 For Drop-out and Weak Students

A large number of general educated people are jobless and employed in low status than their educational degree. In this context, weak students could not manage suitable jobs according to their education. Besides a large number of drop-out students enter in the job market as a general labor without any skill. Some of them migrated abroad as the same and worked abroad low graded odd job in low salary and harassed by the many ways. Since the VE is the work based and training oriented education, so the drop-out and weak students can easily prepare them skilled at any trade by receiving VE and deployed themselves as a skilled worker in home and abroad. It is a suitable opportunity for them and it is also the great prospect of VE. In this study, the researcher has collected the opinion from the respondents about the prospects of VE. There are almost all students (97.6%) were agreed with the comment that VE is the instrument of self-employment because of VE graduate are able to work independently and they trained up on hands and practically. There are almost all students (95.2%) also were agreed with the comment that VE is helpful to construct small industries and workshop to create employments for others. A VE graduate easily can take an initiative to start up this type of entrepreneurship for his expertise of the related field. Most of the students (91.2%) were agreed that VE is appropriate for weak students for their successful economic life because of scope and chance of better employment is more than a general educated weak graduate. Besides, there are almost all students (95.2%) also were agreed with the comment that VE is the main option to reduce unemployment of general higher educated jobless people (Table 7.1).

Table 7.1: Prospect for weak and drop-out students

Students (n=500)		
Comments	Opinion	
	Yes	No
VE is an instrument of self-employment	488(97.6)	12(2.4)
VE is helpful to construct small industries and workshops	476(95.2)	24(4.8)
VE is appropriate for successful economic life for weak students	456(91.2)	44(8.8)
It is the alternative option to reduce unemployment of general higher educated jobless people	476(95.2)	24(4.8)
VE reduce child labor	441(88.2)	59(11.8)
VE increase income level by developing skill	481(96.2)	19(3.8)
VE earn more foreign remittance by exporting skilled man power	480(96.0)	20(4.0)
VE is crying need for developing populous country like Bangladesh	480(96.0)	20(4.0)
Involvement of Vocational educated person can improve the VP	491(98.2)	9(1.8)

Note: percentage shown in parenthesis, VE: Vocational Education

The study also revealed that the Trade instructors, Head teachers/Principals and guardians and social leaders were agreed the same comments about the context weak and drop-out students. There are almost all Trade instructors (87.5%), Head teachers/Principals (85.0%), and guardians and social leaders (94.4%) were commented that VE is need and important for weak meritorious students because of there are many higher general educated graduates are jobless. So, weak meritorious students could not get or create job by receiving general education. Drop-out students further can receive VE, that is very much suitable for them for its work based and training oriented nature. For this reason, weak and drop-out students should receive VE in context of Bangladesh. The VE also will create skilled manpower and a lot of self-employment by providing vast expansion of it and it will also reduce job crisis in Bangladesh. In this study, there are almost all Trade instructors (91.2%), Head teachers/Principals (95.0%), and guardians and social leaders (94.4%) were agreed with the same comments (Table 7.2).

Table 7.2: Prospect of weak and drop-out students

Question	Trade instructor (n=80)		Head teacher /Principal (n=20)		Guardian & Social leader (n=142)	
	Yes	No	Yes	No	Yes	No
Contemporary context of Bangladesh, VE is need and important for weak meritorious students because of there are many higher general educated graduates are jobless. So, weak meritorious students cannot get/create job by receiving general education. For this reason, should weak meritorious students receive vocational and technical education in Bangladesh?	70 (87.5)	10 (12.5)	17 (85.0)	3 (15.0)	134 (94.4)	8 (5.6)
It will create skill manpower and a lot of self-employment by providing vast expansion of VE. Do you think that job crisis will decrease for this step?	73 (91.2)	7 (8.8)	19 (95.0)	1 (5.0)	134 (94.4)	8 (5.6)

Note: percentage shown in parenthesis

7.1.2 For Demand Oriented Education

For Bangladesh as the most populous country, VE is the crying need for its manpower development because of skill based nature of VE. According to the various changing aspects in the globe, countries labor market demands are also changed and to mitigate the labor force demand, VE only the suitable education system as need as us. In Bangladesh, it is known to all that production of education system does not meet the need of job market. A large number of graduates from general education surplus, but a large numbers of shortages the skilled and trained manpower in industries sectors. Education system does not provide the balanced graduates production. So, Bangladesh needs demand oriented education system which is satisfied by the VE only. In this study, the researcher has investigated the opinions about this issue and found the positive comments to establish this assumption. Almost all (96.0%) students were agreed with this comments that VE is the crying need of Bangladesh and it is the main demand oriented and mass people friendly education system of Bangladesh (Table 7.1). There are almost all Trade instructors (95.0%), Head teachers/Principals (100.0%) and guardians and social leaders (94.4%) were also agreed with the comment that VE may be the solution as a key of

demand oriented and mass people friendly education system to mitigate the job market skill manpower crisis and unemployment situation (Table 7.3).

Table 7.3: Prospect of VE as demand oriented education

Question	Trade instructor (n=80)		Head teacher /Principal (n=20)		Guardian & Social leader (n=142)	
	Yes	No	Yes	No	Yes	No
Do you think that VE may be the solution as a key of demand oriented and people friendly education system for mitigating job crisis of Bangladesh?	76 (95.0)	4 (5.0)	20 (100.0)	0 (0.0)	134 (94.4)	8 (5.6)

Note: percentage shown in parenthesis

7.1.3 For Child abuse

Properly introduced VE may be helpful to reduce child labor and child abuse and it may be converting tools to make street boy as a skill hands for industries. In Bangladesh, there are a large number of street boys and parent less poor boys are abused in many ways and they are out of formal education. Special kinds of govt. initiatives to provide VE for the street children make them skilled manpower to enter standard life and creating scope to contribute nation rather than liabilities. In this study, it is revealed that almost all students (88.2%) were agreed with this opinion (Table 7.1) and almost all Trade instructors (91.2%), Head teachers/Principals (90.0%) and guardians and social leaders (97.2%) were also agreed with this opinion (Table 7.4). So, it is concluded that VE decrease child labor and create scope to become poor and street boy as skilled manpower by providing vast expansion and scope of VE.

Table 7.4: Prospect of VE in reducing child labor

Question	Trade instructor (n=80)		Head teacher /Principal (n=20)		Guardian & Social leader (n=142)	
	Yes	No	Yes	No	Yes	No
It will decrease child labor and create scope to become poor and street boy as skill manpower by providing particular steps of VE. Do you agree with this opinion?	73 (91.2)	7 (8.8)	18 (90.0)	2(10.0)	138 (97.2)	4 (2.8)

Note: percentage shown in parenthesis

7.1.4 Demand of Skilled Workers Nationally and Internationally

There are about five hundred thousand workers migrates abroad for seeking jobs. Among them the major part of the workers are unskilled and semi-skilled. They involved in low graded, unsecured odd jobs and earn very low salary. In this connection, Bangladesh earns less foreign currency for exporting manpower to abroad. If it could be possible to export manpower as skilled labor force by providing VE, country can earn more foreign currency by exporting the same number of manpower. In Bangladesh, it has a large opportunity about exporting manpower as a populous country; on the other hand, it has also more scope to earn more nationally by providing VE with developing skill in multifarious trades. In this study, there are almost all students (96.0%) were agreed with this comment (Table 7.1) and there are almost all Trade instructors (98.8%), Head teachers/Principals (100.0%), and guardians and social leaders (97.2%) were also agreed with the same (Table 7.5). So, it is concluded that it is the great prospect of VE that country could earn many more foreign currencies by exporting skilled manpower which is provided by the proper VE.

Table 7.5: Prospect of foreign remittance income

Question	Trade instructor (n=80)		Head teacher /Principal (n=20)		Guardian & Social leader (n=142)	
	Yes	No	Yes	No	Yes	No
There are 500,000 (five lakhs) Bangladeshi migrates abroad per year for job seeking. The major part of them is unskilled and semi-skilled. Country could earn many more remittances if the manpower were sent abroad as a skilled manpower by providing VE/training. Do you agree with this opinion?	79 (98.8)	1 (1.2)	20 (100.0)	0 (0.0)	138 (97.2)	4 (2.8)

Note: percentage shown in parenthesis, VE: Vocational Education

7.1.5 Social Impacts of female Entrance in Vocational Education

In Bangladesh, there are a large number young women spend their time only doing the household activities. They have enough time to do any other earning activities, but they do nothing for absence of knowing any skill. If they might have any training or practical skill, they could involve any economic activity out of household works to earn something for family better living. Providing VE is the right way to develop skill of the women. In this study, the researcher asked the students about this issue. There are almost all (93.8%) were agreed with this comment that women should involve more in VE (Table 7.6). The researcher also were commented to the students that VE also contributes to reduce child marriage, to become women self-reliant by earning activities and to help family economically by involving income generating activities and earning more. Among the student respondents who were agreed with the comments that women should involve more in VE, there are 83.2% of them were agreed with the comment VE reduces child marriage, there are 92.5% were agreed with the comment women can involve many other income generating activities and there are 95.9% were also agreed with the comment VE creates many opportunities to become women as an entrepreneur (Table 7.6).

Table 7.6: Involvement of women in VE

Students (n=500)		
Comments	Opinion	
	Yes	No
Women should involve more in VE	469(93.8)	31(6.2)
Causes of involvements of women in VE		
Students (n=469)		
VE reduces child marriage	390(83.2)	79(16.8)
Women can involve many other income generating activities out of house hold works	434(92.5)	35(7.5)
VE creates many opportunities to become a women entrepreneur	450(95.9)	19(4.1)

Note: percentage shown in parenthesis, VE: Vocational Education

In this study, the researcher also asked the other respondents like Trade instructors, Head teachers/Principals and guardians and social leaders as the same context, there are almost all Trade instructors (93.8%), Head teachers/Principals (95.0%), and guardians and social leaders (98.6%) were agreed with the comment that in Bangladesh many young ladies spent their time by engaging only little household works. They can easily involve themselves in income generating activities side by side of household works as a skilled labor force by receiving VET.

Table 7.7: Prospect of girl's involvement in VE

Question	Trade instructor (n=80)		Head teacher /Principal (n=20)		Guardian & Social leader (n=142)	
	Yes	No	Yes	No	Yes	No
In Bangladesh many young ladies spent her time by engaging only little house hold works. They can easily involve themselves in income generating activities side by side of household works as a skilled manpower/professional by providing VE to them. So, should you feel girls receive VE more and more?	75 (93.8)	5 (6.2)	19 (95.0)	1 (5.0)	140 (98.6)	2 (1.4)
As a vocational professional should girls involve income generating activities more?	72 (90.0)	8 (10.0)	19 (95.0)	1 (5.0)	138 (97.2)	4 (2.8)
Does VE reduce child marriage?	64 (80.0)	16 (20.0)	15 (75.0)	5 (25.0)	121 (85.2)	21 (14.8)
Can girls involve income generating activities out of household works by taking VE?	73 (91.2)	7 (8.8)	17 (85.0)	3 (15.0)	127 (89.4)	15 (10.6)
Can girls can become self-dependent by VE?	72 (90.0)	8 (10.0)	19 (95.0)	1 (5.0)	134 (94.4)	8 (5.6)

Note: percentage shown in parenthesis, VE: Vocational Education

The study also revealed that women should involve more in income generating activities by receiving VE. There are almost all Trade instructors (90.0%), Head teachers/Principals (95.0%), and guardians and social leaders (97.2%) were agreed with this opinion. In this study, it is also revealed that 80.0% Trade instructors, 75.0% Head teachers/Principals and 85.2% guardians and social leaders were also agreed with the comments that VE reduces child marriage. Another comment is that women can become self-dependent as a skilled manpower by receiving VE, there are almost all Trade instructors (90.0%), Head teachers/Principals (95.0%), and guardians and social leaders (94.4%) were agreed with this comment (Table 7.7). So, it is concluded that

there are vast prospect exists in the female entrance in VE and its social impacts are very much effective in context of Bangladesh.

Besides these, by receiving VE, if women can involve more in income generating activities, the women empowerment will be increased. In this context, the researcher has collected the opinions from the Trade instructors, Head teachers/Principals and guardians and social leaders. There are almost all Trade instructors (90.0%), Head teachers/Principals (80.0%), and guardians and social leaders (92.3%) were agreed with the comment that VE can be prosper to the field of women empowerment. There are 85.0% Trade instructors, 75.0% Head teachers/Principals and 88.0% guardians and social leaders were agreed with the comment that VE can be increased gender equality. The study also revealed that there are 92.5% Trade instructors, 95.0% Head teachers/Principals and 93.7% guardians and social leaders also were agreed with the comment that VE can be created positive environment for women entrepreneurship (Table 7.8).

Table 7.8: Prospect of women empowerment

Comments	Trade instructor (n=80)		Head teacher /Principal (n=20)		Guardian & Social leader (n=142)	
	Yes	No	Yes	No	Yes	No
It can be prosper in the field of women empowerment	72 (90.0)	8 (10.0)	16 (80.0)	4 (20.0)	131 (92.3)	11 (7.7)
It can be increase gender equality	68 (85.0)	12 (15.0)	15 (75.0)	5 (25.0)	125 (88.0)	17 (12.0)
It can be create positive environment for women entrepreneurship	74 (92.5)	6 (7.5)	19 (95.0)	1 (5.0)	133 (93.7)	9 (6.3)

Note: percentage shown in parenthesis

7.1.6 Developing Skilled Manpower

In Bangladesh, near about forty percent young people are out of formal education. The main problem of this country is unemployment and large number of unskilled manpower. Without any education or training, people do not become skilled for any job or self-employment. Drop-out students from primary or secondary education also add to this group because of that school level

curriculum is not enough for any job knowledge or works. They go mainly in agriculture sector for their employment and traditional agriculture sector does not provide them as full time worker. For this reason, they go urban areas for any work or job as an unskilled physical labor worker or migrate abroad as the same worker. On the other hand, a large number of general higher educated people also jobless for their unskilled situation, because of they do not know what jobs are fit for them, and they only know that they are certificate holders. In this context, VE can only change the situation and it is treated as suitable education system to develop skilled manpower in our country. As a result, the unemployment situation may reduce gradually. In this study, the researcher has collected the opinion from the selected respondents about this issue and among them there are 95.2% students were agreed with the comments that VE is the main alternative option of skilled development for reduce unemployment (Table 7.1). The study has also revealed that there are almost all Trade instructors (96.2%), Head teachers/Principals (90.0%), and guardians and social leaders (97.2%) also were agreed with the same (Table 7.9). So, it is concluded that VE only can solve the problem that is created for unskilled manpower based job crisis which leads the drop-out and illiterate young generation of Bangladesh.

Table 7.9: Prospect of creating skill man power

Question	Trade instructor (n=80)		Head teacher /Principal (n=20)		Guardian & Social leader (n=142)	
	Yes	No	Yes	No	Yes	No
There are 40% youth in Bangladesh are drop-outs from institutional education and saying as a myth that the most serious problem of Bangladesh is unskilled manpower based job crisis. Do you feel that only VE can solve this problem by creating skilled manpower and for this country will reach at the top of development?	77 (96.2)	3 (3.8)	18 (90.0)	2 (10.0)	138 (97.2)	4 (2.8)

Note: percentage shown in parenthesis

7.1.7 Introducing more Agricultural Trades in Vocational Education

In Bangladesh, there are seventy eight percent labor force are involved in informal sectors. Among them forty eight percent are involved in agricultural sectors. Besides, Bangladesh is a fertile land oriented agro-based country, it has unlimited probability to develop in agricultural sectors. This country also is a populous country, for this reason, it has great scope to develop agriculture sectors rapidly. Traditional agriculture does not provide cumulated manpower and cannot use its diversifying scope. So, it is time demand to introduce more agricultural trades like related to horticulture, fisheries, livestock, poultry etc. In this study, it is revealed that there are almost all Trade instructors (92.5%), Head teachers/Principals (100.0%), and guardians and social leaders (95.1%) were agreed with this issue (Table 7.10).

Table 7.10: Prospect of introducing new agriculture related trade

Question	Trade instructor (n=80)		Head teacher /Principal (n=20)		Guardian & Social leader (n=142)	
	Yes	No	Yes	No	Yes	No
There are 78% manpower of Bangladesh are worked in informal sector. Among them 48% are engaged in agriculture sector. Many men feel that introducing large scale agro based VE (horticulture, fisheries, livestock, poultry etc) may be very fruitful for developing Bangladesh. Do you agree with this opinion?	74 (92.5)	6 (7.5)	20 (100.0)	0 (0.0)	135 (95.1)	7 (4.9)

Note: percentage shown in parenthesis, VE: Vocational Education

7.1.8 Increasing Social Status by Laws

In our traditional societies, some vocational professions are treated as low level profession and their social status is considered as low. The researcher investigated the causes of the low status of those professions and it is obviously found that there is no education required to enter those types of professions. In maximum context, they do not have institutional degree as a skilled person of these areas. Since they have no any institutional degree, people treated them as lay man though their income is enough. In this context, the researcher tried to identify the ways to

increase dignity of those professions. They must have any institutional certificate and registration to enter those types of jobs or professions. In this study it is revealed that there are almost all students (98.2%) were agreed with the comment that all vocational profession should have vocational degree for their dignity and no one could not be enter the vocational profession without prior degree (Table 7.1). The study also were exposed that there are almost all Trade instructors (96.2%), Head teachers/Principals (100.0%), and guardians and social leaders (90.8%) were agreed with this comment. So, as the outcome of the research, it may be established that to establish dignity of vocational profession, related authentic vocational degree or training must be compulsory by laws for entering into vocational professions. Otherwise Government or local government authority will not permit/give registration any one to enter/work in vocational profession (Table 7.11).

Table 7.11: Prospect of increasing dignity of trade

Question	Trade instructor (n=80)		Head teacher /Principal (n=20)		Guardian & Social leader (n=142)	
	Yes	No	Yes	No	Yes	No
For establishing dignity of vocational profession, related authentic vocational degree/training will be compulsory by laws for entering in VP. Otherwise Govt./local authority will not permit/give registration any one to enter/work in VP . Do you think by providing this law both the dignity and income of vocational professional will be increased?	77 (96.2)	3 (3.8)	20 (100.0)	0 (0.0)	129 (90.8)	13 (9.2)

Note: VP: Vocational Profession, Note: percentage shown in parenthesis

7.2 Expansion of Vocational Education

According to the importance, prospect and present status of VE, the researcher assumed the need of expansion of VE in Bangladesh. In this study the researcher asked the respondents whether the expansion of VE should be done or not. There are almost all students (96.2%), Trade instructors (100.0%), Head teachers/Principals (95.0%), and guardians and social leaders (98.6%) were agreed with the comment that they think expansion of VE is need for Bangladesh (Table 7.12).

Table 7.12: Comment about expansion of VE

Question	Student (n=500)		Trade instructor (n=78)		Head teacher /Principal (n=20)		Guardian & Social leader (n=142)	
	Yes	No	Yes	No	Yes	No	Yes	No
Should you feel expansion of VE is need in Bangladesh?	481 (96.2)	19 (3.8)	78 (100.0)	0 (0.0)	19 (95.0)	1 (5.0)	140 (98.6)	2 (1.4)

Note: percentage shown in parenthesis, VE: Vocational Education

Then the researcher asked the same respondents why they feel expansion of VE is needful for Bangladesh and at the same time the researcher also submits them some assumed causes of expansion of VE for their comments and in connection the study revealed that the respondents are highly agreed with these comments for expansion of VE. The assumed causes are as follows:

a) VE creates skilled manpower b) There exist lack of skilled manpower in Bangladesh c) Huge general higher educated peoples are jobless d) VE reduces child labor e) Many scope of self-employment in VE f) VE reduces unemployment g) VE creates scope of exporting skilled manpower h) Increasing remittance from abroad i) Involve women in income generating activities

Table 7.13: Comments why need expansion of VE

Comments	Student (n=481)		Trade instructor (n=78)		Head teacher /Principal (n=20)		Guardian & Social leader (n=142)	
	Yes	No	Yes	No	Yes	No	Yes	No
VE creates skilled manpower	470(97.7)	11(2.3)	76(97.4)	2(1.3)	18(90.0)	2(10.0)	134(94.4)	8(5.6)
Lack of skilled manpower in Bangladesh	422(87.7)	59(12.3)	75(96.2)	3(3.8)	17(85.0)	3(15.0)	134(94.4)	8(5.6)
Huge general higher educated people are jobless	458(95.2)	23(4.8)	75(96.2)	3(3.8)	17(85.0)	3(15.0)	130(91.5)	12(8.5)
VE reduce child labor	456(94.8)	25(5.2)	75(96.2)	3(3.8)	19(95.0)	1(5.0)	139(97.9)	3(2.1)
Many scope of self-employment in VE	423(87.9)	58(12.1)	75(96.2)	3(3.8)	18(90.0)	2(10.0)	134(94.4)	8(5.6)
VE reduce unemployment	447(92.9)	34(7.1)	77(98.7)	1(1.3)	18(90.0)	2(10.0)	134(94.4)	8(5.6)
To export skilled manpower	444(92.3)	37(7.7)	76(97.4)	2(2.6)	19(95.0)	1(5.0)	134(94.4)	8(5.6)
To increase remittance from abroad	456(94.8)	25(5.2)	77(98.7)	1(1.3)	19(95.0)	1(5.0)	136(95.8)	6(4.2)
Involving women in income generating activities	437(90.9)	44(9.1)	75(96.2)	3(3.8)	19(95.0)	1(5.0)	133(93.7)	9(6.3)

Note: percentage shown in parenthesis, VE: Vocational Education

7.2.1 Vocational Education creates Skilled Manpower

In this study the researcher assumed some causes of expansion of VE for its importance in economic growth and sustainable development of Bangladesh. The researcher has found a strong recommendation from the respondents in this regard. There are almost all students (97.7%), Trade instructors (97.4%), Head teachers/Principals (90.0%), and guardians and social leaders (94.4%) were agreed with the comment that VE creates skilled manpower (Table 7.13). So, it is considered as a strongly recommended cause for expansion of VE.

7.2.2 Lack of Skilled Manpower in Bangladesh

In this study it is established earlier that our country suffers severely lack of skilled manpower. Since VE is the main tool to create skilled manpower, so the study revealed that it is a valuable cause for expansion of VE. In this study there are almost all students (87.7%), Trade instructors (96.2%), Head teachers/Principals (85.0%), and guardians and social leaders (94.4%) were

agreed with this comment and for this reason it is strongly measured that lack of skilled manpower is a cause of expansion of VE (Table 7.13).

7.2.3 Huge General Higher Educated People are Jobless

The study also exposed this cause for expansion of VE, because of; a huge number of general higher educated graduates are jobless for their unskilled nature. In this study there are almost all students (95.2%), Trade instructors (96.2%), Head teachers/Principals (85.0%), and guardians and social leaders (91.5%) were agreed with this cause (Table 7.13). So, it is strongly recommended that VE must be expanded for reduce unemployment and unnecessary production of general educated graduates.

7.2.4 Vocational Education reduces Child Labor

In most of the cases poor parents engaged their children to earn something in their early ages due to drop-out from school or never going to school for their inability to send school or to bear expense of education. They think that it is unnecessary and only spending time for passing some classes like primary or secondary level because of insufficient qualification for getting any jobs, since they could not achieve any certificate degree or higher education. So, they engaged their children as child labor. In this context, VE is fit for them. The poor children easily enter into the VE and become a skilled manpower for getting any job or self-employment. In this study, there are almost all students (94.8%), Trade instructors (96.2%), Head teachers/Principals (95.0%), and guardians and social leaders (97.9%) were agreed with this opinion (Table 7.13). So, it is strongly established that need expansion of VE for reducing child labor.

7.2.5 Many Scope of Self-Employment in Vocational Education

As a populous country, Bangladesh needs a large number of entrepreneur for creating jobs scope or self-employment. For creating self-employment or job scope, one should remain skill and knowledge in particular field which is achieved only for hands training and work-based practical and theoretical education that exist only in VE. So, VE is the right field of providing self-employment in any countries like China, India etc. In this study there are almost all students (87.9%), Trade instructors (96.2%), Head teachers/Principals (90.0%), and guardians and social leaders (94.4%) were agreed with the cause for expansion of VE (Table 7.13).

7.2.6 Vocational Education reduces Unemployment

The VE graduates know what is their ability and field of work. Since VE is work based and training oriented. They have enough scope of self-employments. Skilled workers have enough scope to migrate abroad. In Bangladesh, there is shortage of skilled manpower in every sector and it is a continuous process because of the diversification of all sectors for global need and challenges. So, it is assumed that VE must be reduces unemployment situation that grows for general education. In this study, there are almost all students (92.9%), Trade instructors (98.7%), Head teachers/Principals (90.0%), and guardians and social leaders (94.4%) were agreed with the cause VE reduces unemployment (Table 7.13). So, it is concluded that this cause is strongly support to expand of VE.

7.2.7 Vocational Education helps to export Skilled Manpower

There is a large number of unskilled and semi-skilled workers are migrated every year from Bangladesh. Most of the cases they involved in odd jobs and earn comparatively very poor than skilled labor. If they migrate as skilled labor, they obviously will earn more than that of unskilled

or semiskilled labor. The VE can help the country in this context, by developing them as skilled labor force and they can earn more foreign currency. In this study, the researcher has confirmed by the collected opinion that scope of export skilled manpower is the major cause of expansion of VE because of there are almost all students (92.3%), Trade instructors (97.4%), Head teachers/Principals (95.0%), and guardians and social leaders (94.4%) were agreed with this cause (Table 7.13).

7.2.8 Involving Women in Income Generating Activities

Women are half part of the nation's population. They have enough scope to contribute economic sectors which is the great criteria of a nation development. No nation will be developed without the development of their women society. Women will have to involve economic activities and so, they will have to develop skills and knowledge about trades that have demand in job market or scope to involve income generating activities with self-employment. The VE can help to the nation through women skill development and it can be able to contribute the nation. The study also supported this cause for expansion of VE by exposing the respondent's comments. In this study it is revealed that there are almost all students (90.9%), Trade instructors (96.2%), Head teachers/Principals (95.0%), and guardians and social leaders (93.7%) were agreed with this cause, so it is strongly established as a cause of expansion of VE (Table 7.13).

7.3 Steps should be taken for Expansion of Vocational Education

In this study the researcher has shown in the above that why the expansion of VE is needed for Bangladesh. The researcher has discussed what steps should be taken for the expansion of VE in Bangladesh. In this study, the researcher was collected opinions about the steps from the

respondents (whose were direct or indirect stakeholder and related knowledgeable persons). Again it has been assumed for expansion of VE by the study of literatures and observation the present situation of VE. The assumed steps are as follows: a) to build up awareness of people about the facilities of VE; b) to take various steps to reduce negative attitude about VE; c) to create necessary and sufficient scope to admit in VE; d) to take initiatives for expansion of VE by the government and non government sectors; e) to help to create sufficient job sector/scope after completion of VE; f) to support to involve in self-employment; g) to create opportunity for higher education in related trades; h) to advertise about women empowerment through VE; and i) to establish sufficient VE institutions separately and jointly with general education institutions.

Table 7.14: Steps should be taken for expansion of VE

Comments	Student (n=500)		Trade instructor (n=78)		Head teacher /Principal (n=20)		Guardian & Social leader (n=142)	
	Yes	No	Yes	No	Yes	No	Yes	No
To build up awareness of people about the facilities of VE	494 (98.8)	6 (1.2)	77 (98.7)	1 (1.3)	18 (90.0)	2 (10.0)	140 (98.6)	2 (1.4)
To take various step to reduce negative attitude about VE	474 (94.8)	26 (5.2)	78 (100.0)	0 (0.0)	19 (95.0)	1 (5.0)	136 (95.8)	6 (4.2)
To create necessary and sufficient scope to admit in VE	490 (98.0)	10 (2.0)	77 (98.7)	1 (1.3)	19 (95.0)	1 (5.0)	139 (97.9)	3 (2.1)
To take initiatives for expansion of VE by the Govt. and Non Govt. sector	473 (94.6)	27 (5.4)	75 (96.2)	3 (3.8)	19 (95.0)	1 (5.0)	132 (93.0)	10 (7.0)
To create necessary and sufficient job sector after achieving VE	486 (97.2)	14 (2.8)	76 (97.4)	2 (2.6)	19 (95.0)	1 (5.0)	135 (95.1)	7 (4.9)
VE is the tool of making entrepreneur	449 (89.8)	51 (10.2)	77 (98.7)	1 (1.3)	18 (90.0)	2 (10.0)	134 (94.4)	8 (5.6)
To create opportunity for higher education in related trades after passing SSC/HSC VE	487 (97.4)	13 (2.6)	77 (98.7)	1 (1.3)	17 (85.0)	3 (15.0)	129 (90.8)	13 (9.2)
To advertise about women empowerment through VE	462 (92.4)	38 (7.6)	74 (94.9)	4 (5.1)	18 (90.0)	2 (10.0)	133 (93.7)	9 (6.3)
It is necessary to establish vocational institutions besides in general institution with separate vocational unit	474 (94.8)	26 (5.2)	74 (94.9)	4 (5.1)	18 (90.0)	2 (10.0)	136 (95.8)	6 (4.2)

Note: percentage shown in parenthesis, SSC: Secondary School Certificate, HSC: Higher Secondary School Certificate

7.3.1 To build up Awareness of People about the Facilities of Vocational Education

In this study there are almost all students (98.8%), Trade instructors (98.7%), Head teachers/Principals (90.0%), and guardians and social leaders (98.6%) were agreed with the step building awareness of people about the facilities of VE for expansion of its (Table 7.14). Awareness is the very important factor for implementing any policy but information about the issue must be available to the people. VE as like as SSC (Voc) course is the newly introduced educational course in Bangladesh, so it must be advertised enough among the people. The study has findings that a few number (15.6%) of guardians do not know that SSC (Voc) course are conducting in general high school as a different unit with the general SSC course (Table 7.15). So, it is very necessary to build up awareness about the facilities of VE for its expansion where the respondent's perception also the same.

Table 7.15: Opinion between the guardians and social leaders about the facilities of VE

Question	Respondents	Types of opinions	Types of respondent		
			Guardian	S. leader	Total
Do you know that vocational courses are running in General schools out of vocational school?	Guardians and social leaders	Yes	43	88	131
		No	8	3	11
		Total	51	91	142

7.3.2 To take Various Steps to reduce Negative Attitude about Vocational Education

The researcher discussed earlier about the negative attitude of people toward the VE. To expansion of VE, it is a great obstacle and for this reason VE suffers from low enrolment situation till now. Though for exist some real fact for negative attitude towards VE, then also it is need to overcome this by taking various steps to reduce it. In this study there are almost all

students (94.8%), Trade instructors (100.0%), Head teachers/Principals (95.0%), and guardians and social leaders (95.8%) were agreed with that the various steps should be taken for reducing negative attitude towards VE for its expansion because of its vast scope of manpower development in Bangladesh (Table 7.14).

7.3.3 To create Necessary and Sufficient Scope to Admit in Vocational Education

In rural areas, girls cannot go far away to admit schools for various troublesome situations like road, vehicles, eve teasing etc. On the other hand, poor and drop-out students do not want to go too far away or town area for receiving VE. So, it is necessary to create sufficient scope to admit in VE in nearest areas. For facing this reason, it is praise worthy that GOB have taken decision to introduce VE course with general schools but it is not sufficient and proper distributed for girls entrance in VE. It is time demand that GOB should have prompt decision to allocate properly to establish VE institutions independently or jointly with general schools for its expansion. In this study there are almost all students (98.0%), Trade instructors (98.7%), Head teachers/Principals (95.0%), and guardians and social leaders (97.9%) were agreed with this opinion for expansion of VE (Table 7.14).

7.3.4 To take Initiatives for Expansion of Vocational Education by the Government and Non-Government Sectors

It is impossible for Government to do all works alone but Government will have to formulate proper policy for introducing any greater activities like expansion of education. It may be done or participated by the NGOs or private initiatives for implementing this but Government will have to do proper monitoring and patronizations. In this study, almost all respondents (students,

94.6%; Trade instructors, 96.2%; Head teachers/Principals, 95.0%; and guardians and socials leaders, 93.0%) were agreed with this comment (Table 7.14). So, it is concluded that for expansion of VE will have to take initiatives by the Government and non government sectors.

7.3.5 To help to create Sufficient Job Scope after Completion of VE

In this study it is also established the opinion that for expansion of VE, Government should be help to create sufficient job scope after completion of SSC (Voc) course. The study revealed the clear findings (11.6%) about this issue that student of VE course are expected the same (Table 7.16). In the context of this comment there are 97.2% students, 97.4% Trade instructors, 95.0% Head teachers/Principals and 95.1% guardians and social leaders were agreed with this comment as a means of expansion of VE (Table 7.14). So, it is strongly recommended as a necessary step of expansion of VE.

Table 7.16: Opinion about job/HE

Question	Respondents	opinion	Answer		
			Frequency (n)	Percentage (%)	Cum. Percentage (%)
What do you want to do after passing the SSC (Voc) level?	Student	Want to get admitted in HE	442	88.4	88.4
		Want to seek/involve in related trade jobs/self-employment	58	11.6	100.0
		Total	500	100.0	

7.3.6 To support to involve in Self-Employment

Government has some initiatives that are implemented by the several ministries to develop youth generation by creating self-employment. Others NGOs also involved performing these types of works. In this context, Government should have more friendly policy to support self-employment for expansion of VE. The study also revealed the same. There are almost all students (89.8%), Trade instructors (98.7%), Head teachers/Principals (85.0%), and guardians and social leaders

(94.4%) were agreed with the comment that supports VE graduates to involve self-employment for its expansion (Table 7.14).

7.3.7 To create Opportunity for Higher Education in Related Trades

In this study it is also established the opinion that for expansion of VE, Government should be help to create sufficient scope of higher education in related trades after completion of SSC (Voc) course. The study were revealed clear findings (88.4%) about this issue that student of VE course are expected the same (Table 7.16). It is the large portion of the VE students, so, it bears more importance and attractions from the authority to provide them the same. In this regards, there are almost all respondents (students, 97.4%; Trade instructors, 98.7%; Head teachers/Principals, 85.0%; guardians and social leaders, 90.8%) were agreed with this comment as a means of expansion of VE. So, it is strongly recommended as a necessary step of expansion of VE.

7.3.8 To advertise about Women Empowerment through Vocational Education

The VE is actually more powerful tool to empower women in the context of Bangladesh. In Bangladesh, there are remarkable numbers of educated and illiterate women are only involved in household's works. They have no cited income to contribute family or own need. They are totally dependent on their husband or mature children. For this reason, they are neglected in family and they have no decision making power to make their family's well or bad. In this regard, VE makes them skilled and fit for any income generating activities or jobs for contributing family and fulfilling own demand by earning something and make them solvent and powerful to tackle any odd or unexpected situation. It helps the women to stand as self-

dependent which is the main factor of the women empowerment. In this study, there are almost all respondents (students, 92.4%; Trade instructors, 94.9%; Head teachers/Principals, 90.0%; and guardians and social leaders, 93.7%) were agreed with this opinion as an important step of expansion of VE (Table 6.14).

7.3.9 To establish Sufficient Vocational Institutions separately and jointly with General Education Institutions.

This is time demanded and very important step for expansion of VE. Institutions are situated in nearest areas is the great factor to involve people to take education and training or any other things. People achieve it without any struggle and it is easy to spread over the related area. So, for expansion of VE, to establish sufficient VE institutions separately and jointly with general education institutions should be a common and prior step. In this study there are almost all respondents (students, 94.8%; Trade instructors, 94.9%; Head teachers/Principals, 90.0%; and guardians and social leaders, 95.8%) were agreed with this (Table 6.14).

CHAPTER EIGHT

Presentation and Analysis of Qualitative Data

8. Introduction

The most noteworthy quantitative findings were the relations and effects between the variables of problems and prospects of VE and the backgrounds characteristics of the respondents (students, Trade instructors, Head teachers/Principals, guardians and social leaders) in respects of thoughts and feelings about VE. Variables of VE were sometimes significantly associated with the backgrounds characteristics of the respondents. As an initial step, in exploring possible explanations for these findings, we analyzed interviews from the most important respondents in the study areas.

The qualitative analysis was conducted on interview data from 20 students, 7 trade instructors, and 3 head teachers/principals across among the government, non-government and NGO directed schools and 2 guardians and 8 administrators, educators and specialist in VTE field. The samples from government institutions included 8 students, 3 trade instructors and 1 principal, non-government institutions included 8 students, 2 trade instructors and 1 principal and NGO directed institutions included 4 students, 2 trade instructors and 1 principal/program executive (director). Administrators included Regional director and inspector of DTE, District Education Officer, Research Officer, Upazilla Secondary Education Officer, educators included university teacher, polytechnic Principal and specialist included curriculum expert and principal of VTTI, and instructors of VTTI. All the students identified for the semi-structured interviews have similar socioeconomic backgrounds.

8.1 The Interviews

An interview schedule was prepared for this part of this study, using information drawn from the literature review and findings from the quantitative section. The interview used semi-structured questionnaire (schedule), and designed to explore the extent, nature, and quality of the participants' thoughts and feelings about a range of personal, interpersonal and behavioral phenomena. The interview process was guided by structured to open-ended questions that lead into topical areas. Firstly, the participants were requested to prioritize the positive or negative approach and provide reasons why they choose positive or negative comment. Initial responses to interview questions were probed by the interviewer to invite increasingly detailed and thoughtful reports of respondents' self-perceptions. The goal of the interview was to explore the ideas and feelings that respondents assign to their behavior towards VE.

The interviews were conducted by the researcher and Master's thesis group students of the Department of population science and HRD of Rajshahi University. Participants were interviewed by one-on-one-meetings in respective institutions. The interview analyses consisted of detailed readings of participant's attitudes, perceptions and reasons for these. Out of many qualitative approaches, our method involved a content analysis in which interview data were partitioned into content domains for the purpose of the study and respondents. Two trained readers independently read for common themes in participants descriptions of their perceptions about problems and prospects of VE. Themes were identified and generalized within and across the participants. Only those themes that were identified by all two readers independently were considered common themes in the interviews.

The following table (Table 8.1) represents the responses of the participants and the reasons that they advanced for each of the choices that they made.

Table 8.1: Phenomenon related to the problems and challenges of VE

Major theme	Minor themes	Type of participant	Number of responses	Reasons for the choice
1. Attitude towards vocational profession	1.1 Less social dignity of vocational profession	Students	Seven students considered this phenomenon as the problem of less enrolment in VE, but thirteen students are not	Students who considered this phenomenon as a problem were given the following reason for their choice: persons, who engage in vocational profession, treated as engage in labor intensive jobs and sometimes they used to serve people in their house as a service man with call, the both practice which is not prestigious till now in our society. But majority student denied this phenomena because of self-dependent and self-employment criteria of vocational profession. They strongly emphasis that it is prestigious because it reduces unemployment.
		Trade instructors	Five Trade instructors considered this phenomenon as the problem of less enrolment in VE, but two trade instructors are not	The majority reported that this phenomenon is a problem. Robiul Islam, instructor said “ <i>most of the people of our society think that VE is not an important option of education till now, only poor and weak student admit in VE</i> ”. Another trade instructor reported that “ <i>evaluation sense of work and its accreditation knowledge is absent in our society yet. The prejudice of our society is priority to achieve certificate than gathering knowledge and skill, which back through our country from highway of development</i> ”.

		Head teachers /Principals	All Head teachers/Principals considered this phenomenon variable as the problem of less enrolment in VE	Sobhan, a Head teacher at the non-government school, conducted SSC (Voc) course, says weak students admitted in VE, so society treats them as different eyes. It is obviously focus the low dignity of vocational profession.
		Guardians and social leaders	Eight guardians and social leaders considered this phenomenon as the problem of less enrolment in VE, but two are not	Most of the guardians and social leaders were reported that vocational profession treats in the society as a low graded like labor. Shahadat Hossain, a curriculum specialist and Principal of VTTI, said that “ <i>in Bangladesh, social dignity and salary structure of vocational professionals do not fix up till now by the prior authority</i> ”. But Abul Kalam Azad, Regional director (RD) of Directorate of Technical Education (DTE) of Bangladesh said that “ <i>social dignities of vocational professionals are increasing day by day for exporting skilled manpower and goods in abroad</i> ”.

1.2 Vocational profession is physical labor oriented, so it treated to be a low graded job	Students	Nine students considered this phenomenon as the problem of less enrolment in VE, but eleven students are not	Maidul Islam, a ten grader student of UCEP Rajshahi Technical School, reported that “ <i>someone treat vocational profession as low graded for its labor oriented nature, because of, it has no working place or nature with desk and cushion chair with towel</i> ”. Nazmul, Pingky and Tania, the same, TTC at Rajshahi also reported that no one does want to become a labor like mechanics, electrician or carpenter after receiving a degree. They mentioned vocational profession should be highly equipped and technique based for increasing it dignity.
	Trade instructors	Five Trade instructors considered this phenomenon as the problem of less enrolment in VE, but two trade instructors are not	Ayub-ul Azad, an instructor claims “ We the people in our society do not learn to honor any skill based (out of white collar profession) profession, but in developed country it is very much honored so called low graded profession of our country”.
	Head teachers /Principals	All Head teachers/Principals considered this phenomenon as the problem of less enrolment in VE	One Head teacher was reported that traditionally physical labor is treated in our society as low graded job. Since the vocational profession is labor intensive and, even proprietor himself has to work as a worker (labor) in his own workshop with good earning, so, people treat these professions as low prestigious.

		Guardians and social leaders	Eight guardians and social leaders considered this phenomenon as the problem of less enrolment in VE, but two are not	Most of the guardians and social leaders were agreed with this phenomenon. A.K.Azad, RD of DTE said that <i>“people think vocational profession is low graded for the reason of remain not enough modern technology based industries in local areas, that means limited scope of trade based jobs in Bangladesh. So, people do not know the importance of vocational profession and treat it labor oriented jobs”</i> . Shahadat Hossain, a curriculum specialist and principal mentioned that <i>“vocational profession is not low graded but has no social accreditation and acceptance yet”</i> .
	1.3 Lack of social awareness about VE	Students	Fourteen students considered this phenomenon as the problem of less enrolment in VE, but six students are not	Most of the student were commented the same. Rajib, a nine grader, TTC Rajshahi, reported that there are many parents do not know the scope of this education. It provides a weak or mid-level student to become a skilled person for job market in locally and abroad and also creates a scope of higher education. People neglect VE for their traditional mind setting and lack of knowledge about it.

		Trade instructors	All Trade instructors considered this phenomenon as the problem of less enrolment in VE	Ayub-ul Azad, a Trade instructor strongly emphasized “ <i>there are few people exist in our society who knows the real impact of VE all over the country. Some people also do not know the government accreditation and facilities about VE</i> ”. He also emphasized that it is need to involve some meritorious and rich student and people in VE for its overall acceptance and to increase awareness among the mass people.
		Head teachers /Principals	All Head teachers/Principals considered this phenomenon as the problem of less enrolment in VE	All head teachers commented that most of the people of the society are not properly known about the scope and importance of VE.
		Guardians and social leaders	All guardians and social leaders considered this phenomenon as the problem of less enrolment in VE	All guardians and social leaders were said that it is the main obstacles of low enrolments in VE. A. K. Azad, RD of DTE said that “ <i>Government vocational institutions are very few. It is the dire need of our society. Social awareness will be created vastly after establishing of VE institutions in all upazillas of Bangladesh</i> ”. Mustafizur Rahman Khan, a Chief instructor of VTTI said that “ <i>it is impossible to develop the country without creating skilled manpower through VE. It is a tool of removing unemployment. There is a great lack of social awareness about VE</i> ”.

	1.4 Lack of appropriate (quality education) teaching learning situation in VE	Students	Nine students considered this phenomenon as the problem of less enrolment in VE, but eleven students are not	Most of the students who considered this phenomenon as a problem of VE were reported that insufficient instruments and equipments are the main obstacles for proper practical learning in VE. Some of them also commented that the lack of skilled teacher is an obstacle for proper learning in their institutions. The students who considered they might receive proper VE reported that they learn theoretically about the course with common subjects and in addition, practically a particular trade which cannot get general education students. They treated it as an extra advantage.
		Trade instructors	All Trade instructors considered this phenomenon as the problem of less enrolment in VE	All Trade instructors were agreed with this phenomenon that in every conditions of quality education VE fails to avail that. Siddikur Rahman, a Trade instructor reported that shortage and insufficient instruments are the common problems of VE. In some cases instruments are not contemporary, backdated. Another trade instructor reported that in maximum context instructors have no proper training and in most of the cases have no proper monitoring by the management.

		Head teachers /Principals	All Head teachers/Principals considered this phenomenon as the problem of less enrolment in VE	All Head teachers/Principals were reported that in our institutions have lacking of quality VE. Abdus Sobhan, a Head teacher said that <i>“VE institutions cannot provide quality education for lacking of sufficient study materials and instruments”</i> . Golam Mostofa, another Head teacher mentioned that <i>“two reasons are liable for low quality of VE such as i) lack of sufficient trade related instruments ii) lack of trained teacher or scope of training of teacher”</i> .
		Guardians and social leaders	All guardians and social leaders considered this phenomenon as the problem of less enrolment in VE	Shahadat Hossain, a curriculum specialist and Principal reported that <i>“though the curriculum is enough good, but in institutional level its implementation is poor. For this reason, quality education does not provide in VE”</i> . A. K. Azad, RD of DTE said that <i>“there is no equivalent scope of training of all trade instructors which is liable for lack of providing quality education in VE institutions. Some trades have scope of high technological training but others are not”</i> .
	1.5 Expense of VE is more than general education	Students	Ten students considered this phenomenon as the problem of less enrolment in VE, but ten students are not	Students who considered this phenomenon as a problem were reported that for practical purpose sometimes need some instruments or supplements and some trades need some machines for household practices like computer, sewing machine etc. which is expensive.

		Trade instructors	Four Trade instructors considered this phenomenon as the problem of less enrolment in VE, but Three trade instructors are not	Ayub-ul Azad, an instructor said that “ <i>in some cases training materials are costly and students may be holds personal machine for better learning that is costly</i> ”.
		Head teachers /Principals	Two Head teachers/Principals considered this phenomenon as the problem of less enrolment in VE but one head teacher/principal is not	Two Head teachers Abdus Sobhan and Mahamuduzzaman were mentioned that expense of VE is more than general education because of many expensive instruments need for providing VE. On the other hand, Golam Mostofa, another Head teacher mentioned that in VE, there is no need of private tuition. For this reason, it is not more expensive than general education.
		Guardians and social leaders	Eight guardians and social leaders considered this phenomenon as the problem of less enrolment in VE, but two are not	Most of the guardians and social leaders were commented that VE is expensive than general education. Shahadat Hossain, a curriculum specialist and Principal said “ <i>fixed assets and operating costs are much more than general education</i> ”.
	1.6 Insufficient institutions facility in nearest area	Students	Sixteen students considered this phenomenon as the problem of less enrolment in VE, but only four students are not	Most of the students were reported that they feel need to establish more vocational institutions in nearest area.

		Trade instructors	Six Trade instructors considered this phenomenon as the problem of less enrolment in VE, but one trade instructors are not	All most all Trade instructors were agreed that it is known to all that VE institutions is less than general education institutions. They emphasized to establish government vocational institutions in rural area.
		Head teachers /Principals	All Head teachers/Principals do not considered this phenomenon as the problem of less enrolment in VE	All Head teachers/Principals were reported that VE institutions are sufficient in all localities.
		Guardians and social leaders	Nine guardians and social leaders considered this phenomenon as the problem of less enrolment in VE, but one is not	Most of the guardians and social leaders were agreed with this phenomenon. But Shahadat Hossain, a curriculum specialist and Principal said that it is not a problem but people suffer lack of information, advertisement and positive attitude about this education.
	1.7 Scope of higher education is limited	Students	Ten students considered this phenomenon as the problem of less enrolment in VE, but ten students are not	Students who considered this phenomenon were reported that in VE has limited scope of higher education. They think that for better establishment in future life higher education is necessary and compulsory. So, they emphasized to create enough scope of higher education in VE.

		Trade instructors	Four Trade instructors considered this phenomenon as the problem of less enrolment in VE, but three trade instructors are not	Most of the Trade instructors were reported that there are few number of institutions situated in Bangladesh to conduct vocational trade related higher education. Though the vocational students can enter in general and technical university, it is not desirable and easy for them. It should be become trade related higher education.
		Head teachers /Principals	Two Head teachers/Principals considered this phenomenon as the problem of less enrolment in VE but one is not	Two Head teachers were reported that scope of higher education of related trades are not enough in Bangladesh. Abdus Sobhan, a Head teacher mentioned that <i>“to establish a vocational university is a dire need of Bangladesh for providing higher education in related trades”</i> .
		Guardians and social leaders	Eight guardians and social leaders considered this phenomenon as the problem of less enrolment in VE, but two are not	Most of the guardians and social leaders were agreed with this phenomenon. Abul Kalam Azad, a Regional inspector of DTE mentioned that there is no separate vocational university in Bangladesh for receiving higher education in related trades. Another Chief instructor Mustafizur Rahman Khan commented the same and he also added that many develop countries have separate vocational university for providing higher education in related vocational trades.

2. Physical facilities	2.1 Shortage of skilled teacher and instructor in VE	Students	Nine students considered this phenomenon as the problem of bad status of VE, but eleven students are not	Students who considered this phenomenon were said that some instructors are not enough skilled to use instruments of related trades. As a result they cannot demonstrate properly the trade matters.
		Trade instructors	Five Trade instructors considered this phenomenon as the problem of bad status of VE, but two trade instructors are not	Most of the Trade instructors were reported about this context that they have no scope or arrangement from the authority about proper trade related training for achieving skills and expertise.
		Head teachers /Principals	All Head teachers/Principals considered this phenomenon as the problem of bad status of VE	All Head teachers/Principals were reported that there is no remarkable scope and initiative (government and non-government) of training of trade instructors of VE institutions in Bangladesh. Golam Mostofa, a Head teacher said that <i>“Trade instructors of my institutions have gotten no opportunity of trade related training since last seventeen years”</i> .

		Guardians and social leaders	Seven guardians and social leaders considered this phenomenon as the problem of bad status of VE, but three are not	Most of the guardians and social leaders were reported that VE suffers lack of trade related teacher training. Abul Kalam Azad, a Regional inspector of DTE mentioned that some refresher courses are needed for instructors after duration of some times. He also mentioned that maximum non-government vocational institutions suffer lack of sufficient fund or materials for practical exercise.
	2.2 Lack of sufficient classrooms in VE institutions	Students	Ten students considered this phenomenon as the problem of bad status of VE, but ten students are not	Fifty percent students were reported that they feel shortage of class room. Because of in VE institutions there are additional space required for labs and workshops. So, shortage class room is a common problem of some institutions and they cannot open more trades for this reason.
		Trade instructors	Five Trade instructors considered this phenomenon as the problem of bad status of VE, but two trade instructors are not	Most of the Trade instructors were agreed that in some cases it is true but not in all over the country. They reported that in some institutions theoretical and practical class conducted in same labs or classrooms.
		Head teachers /Principals	Two Head teachers/Principals considered this phenomenon as the problem of bad status of VE but one is not	Most of the Head teachers/Principals reported that there is a shortage of class room in VE institutions. Mahamuduzzaman, a Head teacher said that “ <i>maximum VE institutions are established in small scale, so they have shortage of class rooms</i> ”.

		Guardians and social leaders	All guardians and social leaders considered this phenomenon as the problem of bad status of VE	All guardians and social leaders were agreed that more or less all institutions suffer this problem.
3. Present teaching learning situation of SSC (Voc)	3.1 Lack of labs and instruments in related trades	Students	Seventeen students considered this phenomenon as the problem of teaching learning situation of VE, but only three students are not	This phenomenon considered as the major problem. About almost all students were said that lack of labs and instruments are the main cause of their low quality education. They do not get enough scope of practical class for this reason. Maidul, a ten grader student were reported that <i>VE is training and practical learning based but in maximum trades it is hampered by the lack of instruments and labs</i> . In some cases labs are not spacious, so instruments hold in limited manners.
		Trade instructors	Five Trade instructors considered this phenomenon as the problem of teaching learning situation of VE, but two trade instructors are not	Most of the Trade instructors were agreed that in some cases it is true but not in all the institutions. They reported that in some institutions practical instruments are out of service and obsolete. Authority delayed to repair that.
		Head teachers /Principals	All Head teachers/Principals considered this phenomenon as the problem of teaching learning situation of VE	All Head teachers/Principals were reported the same that <i>“shortage of labs and instruments are the major problems of low quality of VE. In some institutions there is no separate trade related labs and instruments of related trades are very few”</i> .

		Guardians and social leaders	Nine guardians and social leaders considered this phenomenon as the problem of teaching learning situation of VE, but one is not	Almost all guardians and social leaders were reported that shortage of instruments is the common problem of all institutions because vocational institutions cannot afford costly industry level machine equipment for practical learning. In this context, Mustafizur Rahman Khan, a Chief instructor said that <i>“for government institutions, instruments are old and insufficient in every trade and for non-government institutions; it is suffering for fund crisis. Besides, in all institutions there is no machine equipments/instruments which used in industry level”</i> .
	3.2 Lack of practical learning	Students	Five students considered this phenomenon as the problem of teaching learning situation of VE, but fifteen students are not	A short listed student reported that in our VE institutions have lacking of practical exercise. In maximum cases it occurs for shortage and troublesome conditions of instruments and repairing of instruments are delayed for funds and sincerity.
		Trade instructors	Four Trade instructors considered this phenomenon as the problem of teaching learning situation of VE, but three trade instructors are not	Robiul Islam, an instructor reported that in some institutions it is happened for lacking of instruments as demand as and in some institutions have lack of skilled instructors.

		Head teachers /Principals	All Head teachers/Principals considered this phenomenon as the problem of teaching learning situation of VE	Mahamuduzzaman, a Head teacher said that “though VE is practical oriented education, then here practical practice is insufficient”. Other two head teachers reported that students cannot learn well in VE for shortage of needful apparatus.
		Guardians and social leaders	Nine guardians and social leaders considered this phenomenon as the problem of teaching learning situation of VE, but one is not	Almost all guardians and social leaders were agreed that in vocational trade courses, students could not get enough practical class for their learning. It may be occurred for lack of sincerity of trade instructors and sometimes shortage of labs or instruments.
	3.3 Lack sincerity and integrity of teacher to teach trade subjects	Students	Three students considered this phenomenon as the problem of teaching learning situation of VE, but seventeen students are not	A few numbers of students consider this phenomenon. One student comments that it occurs for unfair recruitments of trade instructors
		Trade instructors	Two Trade instructors considered this phenomenon as the problem of teaching learning situation of VE, but five trade instructors are not	Most of the Trade instructors were disagreed with this phenomenon. Tanima hoque, a Trade instructor said that sometimes it happened for urgent personal and family matters of trade instructors. It is not the major problems of teaching learning situations.

		Head teachers /Principals	One Head teachers/Principals considered this phenomenon as the problem of teaching learning situation of VE but two are not	Most of the Head teachers/Principals were reported that Trade instructors are sincere to conduct session regularly. One head teacher said that level of sincerity of trade instructors are not enough; they should be more sincere for quality teaching learning situation.
		Guardians and social leaders	Three guardians and social leaders considered this phenomenon as the problem of teaching learning situation of VE, but Seven are not	Most of the guardians and social leaders were mentioned that there is no lacking of sincerity and integrity of teachers about teaching and practical sessions. But Alom Sheikh, a Chief instructor said that in this context instructors need more skill for trade related subject.
	3.4 Lack of student's intention to learn trade lesson well	Students	Seven students considered this phenomenon as the problem of teaching learning situation of VE, but thirteen students are not	Students who considered this phenomenon were reported that some students are always unmindful to learn their trade lessons theoretically and practically. This is one of the causes of low quality of vocational graduates. Maidul, a ten grader student said that <i>“most of the students learn trades work with very neglecting way. It seems that they learn only for examination not developing expertise”</i> .

		Trade instructors	Three Trade instructors considered this phenomenon as the problem of teaching learning situation of VE, but four trade instructors are not	Tanima Hoque, a Trade instructor reported that <i>“most of the instructors cannot motivate students to intend better learning in trade lessons”</i> . Another trade instructor Robiul Islam said that <i>“most of the VE students are not sincere about the study matter for their weak merits. Sometimes they feel depression and remain absence from the class”</i> .
		Head teachers /Principals	Two Head teachers/Principals considered this phenomenon as the problem of teaching learning situation of VE but one is not	Most of the Head teachers/Principals were reported that <i>“students are not enough sincere for studying trade lesson because of their merit. They mentioned that maximum students of VE are low graded”</i> .
		Guardians and social leaders	Three guardians and social leaders considered this phenomenon as the problem of teaching learning situation of VE, but Seven are not	Most of the guardians and social leaders were not agreed with this phenomenon. Shahadat Hossain, a Principal and curriculum specialist, said <i>“Most of the cases it is true, but it may be overcome by proper nursing”</i> .
	3.5 Lack of awareness and co-operation of guardians to learn trade lesson in	Students	Eleven students considered this phenomenon as the problem of teaching learning situation of VE, but nine students are not	In this cases most of the students were reported that guardians are not enough aware about the trade learning of their child. They have a little knowledge about vocational trades and in some cases they feel the negative attitude and negligence towards the VE. For this reason, students can get help very little by the guardians.

	house	Trade instructors	All Trade instructors considered this phenomenon as the problem of teaching learning situation of VE	All Trade instructors were reported that in maximum context guardians are not enough aware about this education. They do not know how their children learn in trade lesson and how much lesson should learn in trade related field. Some guardians do not send their children to the institutions for their family need.
		Head teachers /Principals	Two Head teachers/Principals considered this phenomenon as the problem of teaching learning situation of VE but one is not	Most of the Head teachers/Principals were reported that guardians are unconscious about the education, so they do not help their children to learn trade matters.
		Guardians and social leaders	Nine guardians and social leaders considered this phenomenon as the problem of teaching learning situation of VE, but one are not	Almost all guardians and social leaders were agreed with this phenomenon. Farjana Hoque Shirin, a Research officer reported <i>“most of the vocational students come from low economic family status, generally their guardians are lower educated and for this reason, they are not enough aware about learning status of their children”</i> .
4. Manageme nt	4.1 Lack of monitoring of the head of the	Students	Three students considered this phenomenon as the problem of management of VE, but seventeen students are not	Almost all the students were reported that monitoring of the head of the institutions are sufficient.

	institutions	Trade instructors	Two Trade instructors considered this phenomenon as the problem of management of VE, but five trade instructors are not	Most of the Trade instructors were disagreed with this phenomenon. They reported that monitoring of the head of the institutions is sufficient.
		Head teachers /Principals	One Head teachers/Principals considered this phenomenon as the problem of management of VE but two are not	Most of the Head teachers/Principals were reported that monitoring of the head of the institutions are satisfactory but in some context they should be more dynamic and helpful.
		Guardians and social leaders	Eight guardians and social leaders considered this phenomenon as the problem of management of VE, but two are not	Most of the guardians and social leaders were reported that it is true. Farjana Hoque Shirin, a Research officer said “If the monitoring of head of the institution is okay, then all teaching learning lacking are solved”. Shahadat hossain, a Principal and curriculum specialist said that it is true but not at all.
5. Scope of Study	5.1 Insufficient and weak syllabus	Students	Eight students considered this phenomenon as the problem of syllabus and curriculum of VE, but twelve students are not	Students who considered this phenomenon were reported that syllabus of VE are short. They expected that if the syllabus may have been more resourceful, they might be learned more.

		Trade instructors	Two Trade instructors considered this phenomenon as the problem of syllabus and curriculum of VE, but five trade instructors are not	Most of the Trade instructors were disagreed with this phenomenon. They were reported that syllabus is appropriate and sufficient.
		Head teachers /Principals	All Head teachers/Principals considered this phenomenon as the problem of syllabus and curriculum of VE	All Head teachers/Principals were reported that syllabus is weak and insufficient. It should be more time befitted.
		Guardians and social leaders	Two guardians and social leaders considered this phenomenon as the problem of syllabus and curriculum of VE, but eight are not	Most of the guardians and social leaders were disagreed with this phenomenon. They were reported that curriculum is appropriate but it should be updated regularly according to the demands of industries need.
	5.2 Number of trades are insufficient and not time-befitted	Students	Ten students considered this phenomenon as the problem of syllabus and curriculum of VE, but ten students are not	Students who considered this phenomenon were reported that maximum non-government VE institutions conducted only two or three trades and maximum up to five. So, they cannot admit in trades according to their choices. For this reason, they feel trades are insufficient and not demand oriented.
		Trade instructors	Four Trade instructors considered this phenomenon as the problem of syllabus and	Most of the Trade instructors were reported that in the total number of trades in curriculum are sufficient but in institutional level it is not sufficient. Most of the non-

			curriculum of VE, but three trade instructors are not	government institutions offer only two or three courses that are not enough for demand.
		Head teachers /Principals	No Head teachers/Principals considered this phenomenon as the problem of syllabus and curriculum of VE but one is not	All Head teachers/Principals were mentioned that trades are sufficient and demand oriented for industries need.
		Guardians and social leaders	Seven guardians and social leaders considered this phenomenon as the problem of syllabus and curriculum of VE, but three are not	Most of the guardians and social leaders were agreed with this phenomenon. They feel that it may be introduced more trades for local and abroad needs and for this purpose authority should have regular survey. Abul Kalam Azad, a Regional inspector of DTE said <i>“in all Upzilla of Bangladesh, it should be introduced same type minimum ten vocational trades including agricultural trades like poultry, livestock, fisheries, food processing, dress making, computer, electrical, mechanical, civil etc. as an agro based country”</i> .
6. Quality of education	6.1 Weak student admitted in VE, so they cannot achieve	Students	Fourteen students considered this phenomenon as the problem of low quality of VE, but six students are not	Students who considered this phenomenon were reported the same statement that in VE institutions admitted in maximum context weak and low meritorious students, so they cannot learn well for their low merit. According to this fact, proper expert work force does not produce from VE institutions as well as does not enter in labor market.

	appropriate skills after completion of vocational course	Trade instructors	Six Trade instructors considered this phenomenon as the problem of low quality of VE, but one trade instructors are not	Almost all Trade instructors were reported that it is absolutely true that weak and drop-out students admitted in VE. For this reason, they do not learn the trade lesson well for their weak merits. In some cases, VE demands a little merit for their skill development but when it is absent, it reproduces low quality graduates.
		Head teachers /Principals	Two Head teachers/Principals considered this phenomenon as the problem of low quality of VE but one is not	Most of the Head teachers/Principals were agreed with phenomenon. They were mentioned that weak students admit in VE and for this reason they cannot learn well and enter in job market as a low graded worker. Abdus Sobhan, a Head teacher said that “ <i>for overcoming this situation, meritorious students must be admit in VE</i> ”.
		Guardians and social leaders	Nine guardians and social leaders considered this phenomenon as the problem of low quality of VE, but one is not	Almost all guardians and social leaders were reported that it is true. Shahadat Hossain, a Principal and curriculum specialist said that lack of social awareness and some dilemma and realities people do not intend to get admitted their meritorious children in VE. For this reason, weak meritorious students come in VE (and they cannot learn well for their limitation).
	6.2 Previous learning or basic knowledge of	Students	Twelve students considered this phenomenon as the problem of low quality of VE, but eight students are not	Most of the students considered this phenomenon as a cause low quality of VE. They were reported that Drop-out and weak students are basically weak. They could not learn properly in primary and lower secondary level.

	VE students are very weak	Trade instructors	All Trade instructors considered this phenomenon as the problem of low quality of VE	All Trade instructors were reported that since the meritorious student do not want to admit in VE, so the previous learning and basic knowledge of VE students are weak because of in primary and lower secondary level they do not learn well.
		Head teachers /Principals	All Head teachers/Principals considered this phenomenon as the problem of low quality of VE	All Head teachers/Principals were reported that previous education and basic knowledge of VE students are very poor. Golam Mostofa, a Head teacher said that majority students of VE are drop-out students and come from poor families. Another Head teacher mahamuduzzaman also commented that most of the VE students are drop-outs, poor and weak meritorious. They have weak foundation of education.
		Guardians and social leaders	All guardians and social leaders considered this phenomenon as the problem of low quality of VE	All guardians and social leaders were agreed with this phenomenon. Some social leaders commented in this context that syllabus of theoretical part of SSC (Voc) is hard enough for the drop-out and weak students whose are admitted in VE.
	6.3 Lack of trade related students practical works in VE	Students	Ten students considered this phenomenon as the problem of low quality of VE, but ten students are not	Students who considered this phenomenon were reported that they suffer lack of trade related practical works due to some shortage of instruments and materials. Sometimes existing instruments and materials are unrelated.
		Trade instructors	Six Trade instructors considered this phenomenon as the problem of low quality	Almost all Trade instructors were agreed with this phenomenon. Robiul Islam, an instructor said that “ <i>students cannot get enough practical knowledge from the institutions</i>

			of VE, but one trade instructors are not	<i>due to some lacking like shortage of instruments and learning materials”.</i>
		Head teachers /Principals	Two Head teachers/Principals considered this phenomenon as the problem of low quality of VE but one is not	Most of the Head teachers/Principals were reported that maximum VE institutions have no sufficient instruments and materials for practical session. For this reason, students do not get enough facilities for practical practice in schools.
		Guardians and social leaders	Three guardians and social leaders considered this phenomenon as the problem of low quality of VE, but seven are not	Most of the guardians and social leaders were reported that there is enough practical class conducted in institution level. The social leaders who disagreed with this opinion mentioned that maximum students invest their attention to pass the examination but not practical learning.
	6.4 Lack of trade related practical knowledge of trade instructors	Students	Four students considered this phenomenon as the problem of low quality of VE, but sixteen students are not	A few number of students considered this phenomenon. The most of the students were said that trade related practical knowledge of Trade instructors are sufficient and they try to conduct practical class with limited instruments in respect of their level best.
		Trade instructors	Two Trade instructors considered this phenomenon as the problem of low quality of VE, but five trade instructors are not	Most of the Trade instructors were disagreed with this phenomenon. One instructor reported that in few cases some instructors have lacked of practical knowledge.
		Head	One Head teachers/Principals	Most of the Head teachers/Principals were reported that trade

		teachers /Principals	considered this phenomenon as the problem of low quality of VE but two are not	instructors have sufficient knowledge for conducting practical session. But one Head teacher emphasized that it is necessary to remain regular scope of refreshers training for trade instructors.
		Guardians and social leaders	Eight guardians and social leaders considered this phenomenon as the problem of low quality of VE, but two are not	Most of the guardians and social leaders were agreed with this phenomenon. They commented that in all respects instructors have lacking of sufficient training. Besides, Mustafizur Rahman Khan, a Chief instructor said “There is giving no importance of practical skills at the stage of appointing instructors. So, instructors bear lack of skill for whole life”.
	6.5 There are no scope of trade related practical works in households areas of maximum students	Students	Ten students considered this phenomenon as the problem of low quality of VE, but ten students are not	Fifty percent students were reported that they have no instruments in house for practical works. In some times it is expensive for their context like computer, sewing machine, automobile etc.
		Trade instructors	Six Trade instructors considered this phenomenon as the problem of low quality of VE, but one trade instructors are not	Almost all Trade instructors were agreed with this variable. Robiul Islam, an instructor reported that “ <i>for these opportunities a student need some machine or instrument which may not be available in their house because of most of the cases it is costly and VE students comes generally from poor family</i> ”.
		Head teachers	All Head teachers/Principals considered this phenomenon	All Head teachers/Principals were agreed that instruments of trade learning are expensive in about all the cases. So, it is

		/Principals	as the problem of low quality of VE	difficult for students to manage instruments for practicing in house.
		Guardians and social leaders	Eight guardians and social leaders considered this phenomenon as the problem of low quality of VE, but two are not	Most of the guardians and social leaders were reported that students of VE come from low and middle income level family. Their guardians have no enough capacity to facilitate the trade instruments in household areas for trade training.
	6.6 Lack of professional and trade related knowledge, skill and training of teachers/trade instructors	Students	Four students considered this phenomenon as the problem of low quality of VE, but sixteen students are not	The most of the students who considered this phenomenon were reported that trades instructors need professional training for their skill development. Mustafiz, a student of ninth grader, said that all trade instructors are not equal, some of them are very weak in knowledge and skill and, they have no proper training in trade related jobs.
		Trade instructors	Five Trade instructors considered this phenomenon as the problem of low quality of VE, but two trade instructors are not	Most of the Trade instructors were agreed with this phenomenon. Ayub-ul-Azad, a Trade instructor said that it is proportionally correct, not over all. Rabiul Islam, an instructor also said that though the instructors have received trade related training, but that is not sufficient in all aspects. It has needed more trade related training. For this reason, instructors cannot teach well to the students.
		Head teachers	Two Head teachers/Principals considered this phenomenon	Most of the Head teachers/Principals were said that Trade instructors have no enough professional and trade related

		/Principals	as the problem of low quality of VE but one is not	knowledge and skill. They think that it occurs for lack of regular training from government and other organizations.
		Guardians and social leaders	Nine guardians and social leaders considered this phenomenon as the problem of low quality of VE, but one is not	Almost all guardians and social leaders were agreed with this phenomenon. They all strongly emphasized to provide trade related training for trade instructors for better learning of students.
	6.7 Low salary of trade instructors	Students	Eight students considered this phenomenon as the problem of low quality of VE, but twelve students are not	Some students considered this phenomenon for comparing other professional income.
		Trade instructors	Six Trade instructors considered this phenomenon as the problem of low quality of VE, but one trade instructors are not	Most of the Trade instructors were reported that salary is not sufficient for comparing others profession. They emphasized that it should be special pay which is time demand for trade instructors of VET. Robiul Islam, a Trade instructor also said that if the salary of trade instructors is not sufficient, they have tendency to earn more by other activities which is hamper for good teaching.
		Head teachers /principals	All Head teachers/Principals considered this phenomenon as the problem of low quality of VE	All Head teachers/Principals were reported that salary of trade instructors is not sufficient according to living cost.

		Guardians and social leaders	Eight guardians and social leaders considered this phenomenon as the problem of low quality of VE, but two are not	Most of the guardians and social leaders were reported that salary of trade instructor is insufficient for their status and responsibility. Shahadat Hossain, a Principal of VTTI and curriculum specialist mentioned that salaries of our trade instructors are low graded comparing the instructors of other countries in the world. Abul Kalam Azad, a Regional inspector said that it is dire needed to reduce salary and other discrimination among the officers and instructors and to increase salary of instructors because they spent more time for teaching and practical purpose in class room.
7. Motivation	7.1 Limited scope of consecutive more income in vocational profession	Students	Seven students considered this phenomenon as the problem of motivation towards VE, but thirteen students are not	The students who considered this phenomenon were reported that scope of consecutive more income is limited in vocational profession. Maidul, a tenth grader student said <i>“a graduate of VE is generally appointed as a labor or low graded worker in any industry. He has no another source of income. He also mentioned that it should be considered knowledge and skill for appointment and settle designation, not result or higher degree”</i> . Arafat, a student of ten grader oppose the opinion and said <i>“scope of consecutive more income is enough in vocational profession because who will achieve more skill, his/her income will increase more”</i> .
		Trade	two Trade instructors	Most of the Trade instructors were disagreed with this

		instructors	considered this phenomenon as the problem of motivation towards VE, but five trade instructors are not	phenomenon because of they think that income of vocational professional increases with their experiences i.e. more experiences more income. On the other hand, Trade instructors who agreed with this variable reported that a vocational professional may not be increased income consecutively with their experiences for limited scope and low dignity.
		Head teachers /Principals	One Head teachers/Principals considered this phenomenon as the problem of motivation towards VE but twos are not	One Head teacher was reported that income of vocational profession does not increase consecutively because of its limited scope of expansion. One vocational professional cannot expand his/her volume of works in unlimited manner. So, income may not expand the same.
		Guardians and social leaders	Two guardians and social leaders considered this phenomenon as the problem of motivation towards VE, but eight are not	Most of the guardians and social leaders were disagreed with this phenomenon. They fill that if the skill is appropriate they earn more money consecutively. Shahadat Hossain, a Principal of VTTI and curriculum specialist said “Probability of high income is much more if the skill is appropriate”.
	7.2 Vocational students treated as negligible one by neighbors/	Students	Thirteen students considered this phenomenon as the problem of motivation towards VE, but seven students are not	The students who considered this phenomenon were reported that society treats vocational students as weak and low meritorious. So, they considered as negligible one. But the students who oppose this statement reported that through VE makes a skilled worker or professional whose are needful for society and sometimes neighbors and others get technical

	others for its low dignity or status			support from them. For this reason, neighbors/others do not treat them negligible one.
		Trade instructors	Four Trade instructors considered this phenomenon as the problem of motivation towards VE, but three trade instructors are not	Most of the Trade instructors were reported that society neglects VE students for some reasons like weak merit, low professional dignity and limited scope of higher education. Mainul Islam, a Trade instructor also said that some people neglect VE students for their lack of knowledge of market demand and prospects of VE. Shafiqul Islam, another Trade instructor said that some people neglect VE for its low quality.
		Head teachers /Principals	All Head teachers/Principals considered this phenomenon as the problem of motivation towards VE	All Head teachers/Principals were reported that “ <i>VE students are neglected by the neighbors for its physical labor oriented nature. They treat it low graded profession</i> ”.
		Guardians and social leaders	Seven guardians and social leaders considered this phenomenon as the problem of motivation towards VE, but three are not	Most of the guardians and social leaders were agreed with this phenomenon. Mustafizur Rahman khan, a Chief instructor said that VE students are neglected by the neighbors. They feel that after completion this education, they will become a labor. But Shahadat Hossain, a Principal of VTTI and curriculum specialist feels that it is not at all. The vocational graduates who earn sufficient and attractive, neighbors respect them appropriately.

	7.3 Social customs, idioms and dilemma create obstacles to admit in VE	Students	Fifteen students considered this phenomenon as the problem of motivation towards VE, but five students are not	The students who considered this phenomenon were reported that it is strongly applicable for girl students. Society only permits girls in limited professions like tailoring, food processing, graphics etc.
		Trade instructors	Six Trade instructors considered this phenomenon as the problem of motivation towards VE, only one are not.	Almost all Trade instructors were agreed with this phenomenon. They think that our society is strongly influenced by some misconception and most of the guardians have lacking of proper knowledge and education. Ayub-ul-azad, an instructor said that <i>“a large number of guardians think that they treat socially neglected if their children admitted in VE”</i> . Robiul Islam, an instructor also commented that <i>“social customs, idioms and dilemma strongly create obstacles to admit in VE especially for girl’s entrance”</i> .
		Head teachers /Principals	Two Head teachers/Principals considered this phenomenon as the problem of motivation towards VE but one is not	Golam Mostofa, a Head teacher reported that <i>“Guardians do not send their children in VE bearing a misconception that they underestimated in socially”</i> . Another Head teacher Mahamuduzzaman said that <i>“some guardians do not send their children in VE institutions for fear of losing social dignity especially for girls”</i> .
		Guardians and social	One guardians and social leaders considered this	Almost all guardians and social leaders were disagreed with this variable. In this context, Alom Sheikh, a chief instructor

		leaders	phenomenon as the problem of motivation towards VE, but nine are not	express his opinion as like that if the children of rich mans and higher educated guardians come in VE, then it will be reduced.
	7.4 In VE, one has to select profession in early age, so scope of accepting profession might be limited. Because of this, many students do not want to admit in VE	Students	Sixteen students considered this phenomenon as the problem of motivation towards VE, but four students are not	Most of the students were agreed this opinion because they explained that In VE one has to choice trade in the time of admission that guided him to take profession after completion of course. On the other hand, after completion of course one gets job in earlier or has scope to involve self-employment in early life. But in general education, one remains many varieties scope to choice profession though it is uncertain. So, parents consider it strongly for their intention of white color jobs for their children.
		Trade instructors	Three Trade instructors considered this phenomenon as the problem of motivation towards VE, but four trade instructors are not	Most of the Trade instructors were disagreed with this phenomenon. Mainul Islam, an instructor said that considering this matter only poor students come in VE. Rich and middle class families want to see their children will be involved white collar jobs in future. They do not want to send their children in VE.
		Head teachers /Principals	Two Head teachers/Principals considered this phenomenon as the problem of motivation towards VE but one is not	Most of the Head teachers/Principals were reported that maximum students want to get higher education and to involve themselves in white collar jobs and also their guardian's intentions are the same. So, they do not want to get admitted in

				VE.
		Guardians and social leaders	Nine guardians and social leaders considered this phenomenon as the problem of motivation towards VE, but one is not	Almost all guardians and social leaders were agreed with this phenomenon. They all reported that at early age it is difficult to select profession for students. On the other hands no guardians do not want to send their regular studied children in VE to become work based job holder. Guardians want to admit their children in any higher education path for this type of attitude that decision of carrier whatever will happen may be taken later.
8. Women entrance in VE	8.1 Social kinship, religious restrictions and child marriage are great obstacles for admitting in VE	Students	Fifteen students considered this phenomenon as the problem of women entrance in VE, but five students are not	Most of the students considered it strongly. Almost all said that especially child marriage is the great obstacles for admitting girls in VE.
		Trade instructors	Four Trade instructors considered this phenomenon as the problem of women entrance in VE, but three trade instructors are not	Robiul Islam, an instructor were reported that “some parents discouraged their female Childs to admit in VE for their negative attitude towards education though they are drop-outs or current students. They think that no need of higher education for female Childs and as a result occurred child marriage in our society”.
		Head	All Head teachers/Principals	All Head teachers/Principals were reported that religious

		teachers /Principals	considered this phenomenon as the problem of women entrance in VE	restrictions, social customs and child marriage are great obstacles for entrancing in VE. A majority of guardians do not send their female Childs in VE for these reasons.
		Guardians and social leaders	Nine guardians and social leaders considered this phenomenon as the problem of women entrance in VE, but one is not	Almost all guardians and social leaders were reported that this phenomenon is a major problem for girls' entrance in VE. Shahadat Hossain, a Principal of VTTI and curriculum specialist mentioned that though it is not at all but sometimes it may occur negative impact to admit girls in VE.
9. Variables related to the prospects of VE	9.1 VE is suitable for weak meritorious and drop-out students	Students	Seventeen students considered this phenomenon as the prospect of VE, but three students are not	Most of the students were said that since it is physical work based and training oriented, so, weak meritorious students can easily afford it. The drop-out students who dropped for weak merit, they can easily receive this education and can become skilled person at any trades. Tania, a tenth grader said that though the VE is not easy enough, then it is more suitable for weak and drop-out students for its physical work based nature. Mustafiz, a ninth grader opposed that it is not only for weak students, it could be suitable for all types of students.
		Trade instructors	Four Trade instructors considered this phenomenon as the prospect of VE, but three trade instructors are not	Most of the Trade instructors were reported that VE is suitable for drop-out and weak meritorious students because of its skill based nature and the way to achieve skill for jobs and self-employment. Ayub-al-azad, an instructor reported that by dint of VE, a drop-out and weak meritorious students could achieve

				a job for bearing his life. Tanima hoque, an instructor also said that it is not only weak students but it is need for all types of students.
		Head teachers /Principals	Two Head teachers/Principals considered this phenomenon as the prospect of VE but one is not	Two Head teachers were said that VE is very much suitable for drop-out and weak meritorious students for its work based nature but one head teacher reported that it is not only for drop-outs and weak students, it is suitable for all types of students because of without merit no one cannot receive any education or skill properly.
		Guardians and social leaders	Three guardians and social leaders considered this phenomenon as the prospect of VE, but seven are not	Most of the guardians and social leaders were disagreed with this phenomenon because of its study content and prospects of carrier. Shahadat Hossain, a Principal of VTTI and curriculum specialist said “VE is not only weak and drop-out students. Meritorious students will do well in VE and for this it will have to be created enough scope of trade related higher education”.
	9.2 VE creates scope of self-employment	Students	Nineteen students considered this phenomenon as the prospect of VE, but only one students are not	Almost all students were agreed with this phenomenon because of, in this field one has to learn trade lesson by hands and practically. So, his/her expertise grows sufficiently in that trade for doing independently. For this reason, one can start an income generating activities as a profession. Laboni, a tenth grader said that “ <i>vocational graduates can create an earning</i>

				<i>environment by their own capacity and expertise”.</i>
		Trade instructors	All Trade instructors considered this phenomenon as the prospect of VE	All trade instructors were agreed with this phenomenon. All are reported that a VE student can creates a self-employment after completion his/her course.
		Head teachers /Principals	All Head teachers/Principals considered this phenomenon as the prospect of VE	Mahamuduzzaman, a Head teacher said that “ <i>one can be established himself as a self-reliant with his own skill, merit and labor by receiving VE</i> ”. Another Head teacher Golam Mostofa mentioned that “ <i>VE students can easily built up a workshop or enterprise in related trades if he/she learn his/her lessons properly</i> ”.
		Guardians and social leaders	All guardians and social leaders considered this phenomenon as the prospect of VE	All guardians and social leaders were mentioned that it is work based and skill oriented job. So, VE is the tools of self-employment.
	9.3 VE sometimes alternative means of employability of general educated people	Students	Fourteen students considered this phenomenon as the prospect of VE, but six students are not	Laboni, a tenth grader here also said that “ <i>it is very much available example in our society that a general higher educated person could not manage a job or self-employment by their achieved higher degree but a additional vocational degree or diploma might be caused getting a job or self-employment</i> ”.
		Trade instructors	Five Trade instructors considered this phenomenon	Most of the Trade instructors were reported that a general educated graduate which is unemployed, can create easily a

			as the prospect of VE, but two trade instructors are not	self-employment or manage a job by receiving short term/long term training course of VE.
		Head teachers /Principals	All Head teachers/Principals considered this phenomenon as the prospect of VE	All Head teachers/Principals were agreed that general higher educated jobless people can create a self-employment by receiving trade training in any vocation. It has vast examples in our society.
		Guardians and social leaders	Nine guardians and social leaders considered this phenomenon as the prospect VE, but one is not	Almost all guardians and social leaders were agreed with this phenomenon. Abul Kalam Azad, a Regional inspector of DTE said “Many higher general educated people have created self-employment or have managed jobs by receiving vocational training/diploma (like electrical, beautification, surveying, driving, computer, poultry, livestock, fisheries, tailoring etc.) after the completion of their university degree”.
	9.4 VE creates entrepreneurs hip	Students	Nineteen students considered this phenomenon as the prospect of VE, but only one students are not	Almost all students were agreed that sometimes vocational trade knowledge may be caused of becoming an entrepreneur in related sector.
		Trade instructors	All Trade instructors considered this phenomenon as the prospect of VE	All Trade instructors were reported that it is the way of creating entrepreneurship. Robiul Islam, an instructor said that vocational educated person become confident and brave for their practical expertise of any trade. They can easily make a workshop or enterprise for income generating activities.

		Head teachers /Principals	All Head teachers/Principals considered this phenomenon as the prospect of VE	Mahamuduzzaman, a Head teacher reported that “ <i>VE motivate students to become an entrepreneur</i> ”. Abdus Sobhan, another Head teacher said that “ <i>some students have an ability and quality to become an entrepreneur and some trades also very much suitable for lunching an entrepreneurship. In this context, VE enforces students to develop entrepreneurship</i> ”.
		Guardians and social leaders	Nine guardians and social leaders considered this phenomenon as the prospect of VE, but one is not	Almost all guardians and social leaders were mentioned that it is work based and training oriented education. It has vast scope to generate self-employment. As a densely populous country, Bangladesh needs to create a lot of self-employment for reducing unemployment.
	9.5 VE reduces child labor	Students	Sixteen students considered this phenomenon as the prospect of VE, but four students are not	Most of the students considered this phenomenon. They strongly emphasized that VE reduces child labor backing drop-out students into educational institutions from work field.
		Trade instructors	All Trade instructors considered this phenomenon as the prospect of VE	All Trade instructors were reported that it is very much true that VE reduces child labor by involving drop-out students again in work based education up to grade ninth and tenth i.e. 14 or 15 years old. Ayub-ul azad, an instructor commented that drop-out students again enter in education through VE whose used to go in work world before as a child labor.
		Head	All Head teachers/Principals	All Head teachers/Principals were reported that child labor is

		teachers /Principals	considered this phenomenon as the prospect of VE	reducing for involving drop-out students in VE.
		Guardians and social leaders	Eight guardians and social leaders considered this phenomenon as the prospect of VE, but two are not	Almost all guardians and social leaders were agreed with this phenomenon because involving in VE detached poor child from work field to school or training centre. Besides, it is helpful for implementing labor law.
	9.6 Increasing income level of worker by achieving skills through the VE	Students	Eighteen students considered this phenomenon as the prospect of VE, but only two students are not	Almost all students were agreed with this variable because of VE increases skilled level of any workers. A skilled worker earns more than an unskilled worker. Maidul, a tenth grader said that an employee can be upgraded his status and designation by developing skilled through training and for this it may be increased his earning.
		Trade instructors	All Trade instructors considered this phenomenon as the prospect of VE	All Trade instructors were agreed with this phenomenon. Tanima hoque, an instructor said that a worker gets promotion by achieving more skills and then his/her salary may be increased obviously. Another trade instructor Ayub-ul-azad said that in all times skilled labor earns more than semi-skilled and unskilled labor.
		Head teachers /Principals	All Head teachers/Principals considered this phenomenon as the prospect of VE	All Head teachers/Principals were said that it is known to that entire skilled worker always earn more than an unskilled or semi-skilled worker.
		Guardians	Nine guardians and social	Almost all guardians and social leaders were agreed with this

		and social leaders	leaders considered this phenomenon as the prospect of VE, but one is not	phenomenon. Shahadat hossain, a Principal of VTTI and curriculum specialist mentioned “there is a positive relation between skill and productivity. If the productivity of worker is increased, income level will also be increased”.
	9.7 By achieving skills through VE, one can migrate in abroad as skilled worker and earn more than unskilled migrant.	Students	Eighteen students considered this phenomenon as the prospect VE, but only two students are not	Almost all students were agreed with this phenomenon that VE can provide skilled labor force and exporting them in abroad, country can earn more currency (than exporting unskilled labor force). Laboni, a tenth grader said that “ <i>there is a lot demand of skilled labor in the world. We can become skilled by receiving VE and then we can migrate abroad and can earn more currency than present time</i> ”.
		Trade instructors	All Trade instructors considered this phenomenon as the prospect of VE	All Trade instructors reported that in foreign countries have demands a huge skilled man power. We can export skilled manpower by providing VE and can earn more income than present time.
		Head teachers /Principals	All Head teachers/Principals considered this phenomenon as the prospect of VE	Mahamuduzzaman, a Head teacher said that “In foreign countries there are a lot of demands of skill workers yet. A vocational skilled graduate can easily migrant the foreign countries and earn high level income”. Another two head teacher also commented the same.
		Guardians and social	All guardians and social leaders considered this	All guardians and social leaders were agreed with this phenomenon.

		leaders	phenomenon as the prospect of VE	
	9.8 For creating skilled manpower, VE is the most appropriate education system of Bangladesh as a populous country	Students	All students considered this phenomenon as the prospect of VE	All students were said that for developing skilled manpower, VE is the most important and appropriate education system for Bangladesh, as a populous country. Raihan, a tenth grader student said that <i>“Bangladesh is a populous country. There is no alternative of VE for Bangladesh to develop its peoples as a skilled manpower”</i> .
		Trade instructors	All Trade instructors considered this phenomenon as the prospect of VE	All Trade instructors were agreed with this phenomenon. Robiul Islam, an instructor said that <i>“general education fails to create peoples as skilled manpower. A large number of general higher educated graduates are jobless due to lack of any trade skill. So, as a populous country, Bangladesh has no alternative of VE for creating skilled manpower”</i> .
		Head teachers /Principals	All Head teachers/Principals considered this phenomenon as the prospect of VE	All Head teachers/Principals were said that <i>“of course it is true because of our large unskilled manpower must be transformed as a skilled manpower for better future. Otherwise it will create some social problems. Government could not provide jobs for all people, so it is the appropriate education system of Bangladesh, as a populous country”</i> .
		Guardians and social	All guardians and social leaders considered this	All guardians and social leaders were reported that it is very much suitable education system for Bangladesh. Shahadat

		leaders	phenomenon as the prospect of VE	Hossain, a Principal of VTTI and curriculum specialist strongly said “Bangladesh is enjoying demographic dividend and for proper utilizing this dividend, there is no alternative of VE for developing skill manpower which contribute the country as a developed one in the world”.
	9.9 For increasing dignity of vocational profession, it should be involved those people whose are educated from vocational institutions	Students	Nineteen students considered this phenomenon as the prospect of VE, but only one students are not	Almost all students were agreed with this phenomenon. They mentioned that involving educated and institutional graduates in any profession may increase its dignity.
		Trade instructors	Six Trade instructors considered this phenomenon as the prospect of VE, but one trade instructors are not	Almost all Trade instructors were agreed with this phenomenon. Siddikur Rahman, an instructor said that “ <i>of course, if vocational professions are directed by vocational educated people, then people will be bound to respect the vocational professions. Because of, academic degree evaluated as a symbol of honor in our traditional society</i> ”.
		Head teachers /Principals	All Head teachers/Principals considered this phenomenon as the prospect of VE	All Head teachers/Principals were said that “ <i>without educational certificates or backgrounds, no profession will be honored in our society and another way if the educated people enter in vocational profession, its social dignity may be increased</i> ”.
		Guardians and social	All guardians and social leaders considered this	All guardians and social leaders were agreed with this phenomenon.

		leaders	phenomenon as the prospect of VE	
	9.10 VE is people centered and demand oriented education system because of its unemployment removing capacity	Students	Eighteen students considered this phenomenon as the prospect of VE, but only two students are not	Almost all students were said that VE provides skilled manpower. At present our country and also the whole world suffer shortage of skilled labor force. As a populous country, Bangladesh can provide a large number of skilled labor forces in home and abroad by providing VE. In this context, all students mentioned that it is people centered and demand oriented education for Bangladesh. They also mentioned that VE reduces unemployment and creates self-employment.
		Trade instructors	All Trade instructors considered this phenomenon as the prospect of VE	All Trade instructors were reported that it is true. Because of, VE creates skilled labor force for various industries as well as self-employment.
		Head teachers /Principals	All Head teachers/Principals considered this phenomenon as the prospect of VE	All Head teachers/Principals were mentioned that VE reduces unemployment by creating self-employment. So, it should be the people centered and demand oriented education for a populous country like Bangladesh.
		Guardians and social leaders	All guardians and social leaders considered this phenomenon as the prospect of VE	All guardians and social leaders were agreed with this phenomenon.
	9.11 VE is	Students	All students considered this	All students were reported that VE and training are very much

	also means of creating vulnerable and street boy as a skilled labor force		phenomenon as the prospect of VE	suitable means to develop vulnerable and street boy as a skilled labor force.
		Trade instructors	All Trade instructors considered this phenomenon as the prospect of VE	All Trade instructors considered the VE as a way to provide vulnerable and street boy as a skilled worker. Tanima hoque, an instructor said that “ <i>VE can make a street boy as a skilled worker within a short time by providing skill training</i> ”.
		Head teachers /Principals	Two Head teachers/Principals considered this phenomenon as the prospect of VE but one is not	Mahamuduzzaman, a Head teacher reported that “ <i>it is impossible for those persons who are vulnerable and street boys, to receive regular long term general education following all formalities; they might be skilled worker easily by receiving short term VET</i> ”. Abdus Sobhan, another Head teacher also said that “ <i>VE makes a street boy as a skilled labor within a short time which is very difficult for general education</i> ”.
		Guardians and social leaders	All guardians and social leaders considered this phenomenon as the prospect of VE	All guardians and social leaders were agreed with this phenomenon.
	9.12 VE reduces child marriage	Students	Fourteen students considered this phenomenon as the prospect of VE, but six students are not	Jibon, a tenth grader students reported that VE is an alternative scope of drop-out students to remain involve in education and grow up with a skilled. So, the families of girl child do not feel the mental pressure to marriage earlier. Most of the students think the same.

		Trade instructors	Six Trade instructors considered this phenomenon as the prospect of VE, but one trade instructors are not	Almost all Trade instructors were reported that VE reduces child marriage. Tanimahoque, an instructor commented that <i>“parents would not like to give marriage their female Childs for engaging education or involving income generating activities within short time by receiving VE”</i> . Another Trade instructor Ayub-ul-azad said that <i>“children whose are engaged in education, generally their marriage may be some late than others”</i> .
		Head teachers /Principals	All Head teachers/Principals considered this phenomenon as the prospect of VE	All Head teachers were agreed that VE reduces child marriage. They argued that the age when girls bear a risk of child marriage, and then they engage in education. So, parents do not want to give them marriage.
		Guardians and social leaders	Eight guardians and social leaders considered this phenomenon as the prospect of VE, but two are not	Most of the guardians and social leaders were agreed with this phenomenon.
	9.13 VE involves women in more income generating activities	Students	Sixteen students considered this phenomenon as the prospect of VE, but four students are not	Most of the students were agreed with this phenomenon. Laboni, a tenth grader reported that women can be skilled practically through VE and can create scope of self-employment like tailoring, boutique, embroidering etc. type income generating activities.
		Trade	Six Trade instructors	Almost all Trade instructors were reported that in some trades

		instructors	considered this phenomenon as the prospect of VE, but one trade instructors are not	girls can involve income generating activities in household areas. Tanimah Hoque, an instructor reported that girls can be help her families by earning money involving some trades like tailoring, food processing in household areas by receiving VE in that trades.
		Head teachers /Principals	All Head teachers/Principals considered this phenomenon as the prospect of VE	All Head teachers/Principals reported that girls can involve income generating activities through the VE in their household areas and industries. Abdus Sobhan, a Head teacher said that “ <i>girls in some trades like tailoring, cottage industries etc. can start earning within short time</i> ”.
		Guardians and social leaders	Nine guardians and social leaders considered this phenomenon as the prospect of VE, but one is not	Most of the guardians and social leaders were agreed with this phenomenon.
	9.14 VE is a tool of women empowerment	Students	Eighteen students considered this phenomenon as the prospect of VE, but only two students are not	Almost all students were reported that VE also tool of women empowerment because of it involves women in income generating activities and self-employment. Women who earn some money, they practice some power.
		Trade instructors	Six Trade instructors considered this phenomenon as the prospect of VE, but one trade instructors are not	All most all Trade instructors were agreed with this phenomenon. Ayub-ul-azad, an instructor said that “ <i>by receiving VE, women can earn some money and may become self-dependent, and then it may be called an instrument of</i>

				women empowerment”.
		Head teachers /Principals	All Head teachers/Principals considered this phenomenon as the prospect of VE	All Head teachers/Principals said that women empowerment may be achieved through VE. They also noted that VE makes a woman as a self-dependent person involving income generating activities by achieving any skill. So, it is obviously a tool of women empowerment.
		Guardians and social leaders	All guardians and social leaders considered this phenomenon as the prospect of VE	All guardians and social leaders were agreed with this phenomenon.
	9.15 VE creates more field of employment in various sectors like agriculture, industry etc.	Students	All students considered this phenomenon as the prospect of VE	All students were agreed with this phenomenon.
		Trade instructors	All Trade instructors considered this phenomenon as the prospect of VE	All Trade instructors agreed with this variable. Tanima hoque, an instructor said that “ <i>in VE has very more new scope of employment than general education</i> ”.
		Head teachers /Principals	All Head teachers/Principals considered this phenomenon as the prospect of VE	Mahamuduzzaman, a Head teacher reported that “Of course it is true”. He also mentioned that “ <i>only in the year 2015, around two lakhs new employment have been generated by VET in Bangladesh in various sector including agriculture and industries</i> ”.
		Guardians	All guardians and social	All guardians and social leaders were agreed with this

		and social leaders	leaders considered this phenomenon as the prospect of VE	phenomenon.
	9.16 Increase social dignity of physical labor oriented professions by receiving related profession (Trade) oriented VE	Students	Sixteen students considered this phenomenon as the prospect of VE, but four students are not	Most of the students were reported that it is true matter. If the educated person involve in vocational profession, they think that dignity of vocational profession may be increased. So, it should be obliged to any person must be achieved degree in VE to enter in vocational profession.
		Trade instructors	Six Trade instructors considered this phenomenon as the prospect of VE, but one trade instructors are not	Almost all Trade instructors reported that dignity of vocational professional may be increased by involving those people who received VE in related trades from an institution. Ayub-ul-azad, an instructor said that <i>“worker who receive VE, become a skilled worker, then he performs better, environment of working place of him become nice, he behaves better and for this reason, ultimately increase his dignity or his profession. So, VE increases the social dignity of vocational professions”</i> .
		Head teachers /Principals	All Head teachers/Principals considered this phenomenon as the prospect of VE	All Head teachers/Principals agreed with this phenomenon. Mahamuduzzaman, a Head teacher said that <i>“with combination of education, a physical labor become complete in nature, where time and cost may be saved and it brings respect from society”</i> . Abdus Sobhan, another Head teacher said that <i>“if the people of vocational profession may be educated in VE, will</i>

				<i>increase their quality of trade works and then will increase their social dignity”.</i>
		Guardians and social leaders	All guardians and social leaders considered this phenomenon as the prospect of VE	All guardians and social leaders were agreed with this phenomenon.
	9.17 It is a dire need to establish a vocational university in Bangladesh for higher education in vocational trades.	Students	Nineteen students considered this phenomenon as the prospect of VE, but only one students are not	Almost all students were said that for providing higher education in related vocational trade it is a dire need to establish vocational university in Bangladesh.
		Trade instructors	All Trade instructors considered this phenomenon as the prospect of VE	All Trade instructors were reported that in Bangladesh there is no special university for vocational trades.
		Head teachers /Principals	All Head teachers/Principals considered this phenomenon as the prospect of VE	All Head teacher mentioned that <i>“in Bangladesh, to promote VE, vocational university must be established soon. Because of, without vast scope of higher education, meritorious student will not enroll in VE and for this reason; quality of VE does not enhanced”.</i>
		Guardians and social leaders	All guardians and social leaders considered this phenomenon as the prospect of VE	All guardians and social leaders were agreed with this phenomenon.

CHAPTER NINE

Summary of Findings

9. Introduction

The aim of this chapter was to provide summary of this study by providing a synthesis and consolidation of major findings of both quantitative and qualitative aspects. At the final stage of this study, it is important to explore how the study was completed. The mixed methods research approach, namely a combination of quantitative and qualitative research methods was used. To provide the answers about the investigations of problems and prospects of VE, the integration of qualitative and quantitative data were played a significant role. The quantitative data collection method employed questionnaire, which was followed by collecting qualitative data by means of structured interviews. The qualitative data permitted to all types of respondents to express better what could not be expressed well by means of the questionnaire responses. The integrated approach provided data from where stronger inferences can be made by capturing and presenting a greater diversity of viewpoints.

9.1 Summary

The purpose of this research study was to investigate the determinant factors related to problems and prospects of VE. The study concentrated on to investigate the present state of VE and the causes of low enrolment in VE, in SSC (Voc). This study consisted by two phases namely quantitative phase and qualitative phase. The main findings of these phases are presented in the following ways:

9.1.1 Quantitative Phase

The main research objectives of this study were to identify the factors related to problems and prospects of VE and their effects on our society and the enrolment in VE. To reach the objectives, data and necessary information were collected from different stakeholders (500 students, 80 Trade instructors, 20 Head teachers/Principals, 142 ‘guardians and social leaders’). Four types of separate questionnaire were designed and distributed to the respondents and collected in time and analyzed the data. The results were presented in Chapter 4 - 7.

9.1.2 Qualitative Phase

This phase was consisted of interview which was carried out by using one common semi-structured interview schedule among 40 respondents of all categories (students, Trade instructors, Head teachers/Principals, and ‘guardians and social leaders’). The purpose of the interview was to understand in-depth perceptions whether the respondents stood against the phenomena or not. The results were presented in Chapter 8.

The results of both phases are explained in details in the previous chapters (chapters 4 – 8) and the major findings are summarized here by chapter-wise.

9.2 Major Findings

9.2.1 Chapter Four

The findings revealed under the chapter titled **“Factors Related to Vocational Education”** are as follows:

A remarkable number of students (40.2%, aged 16-20 years) were enrolled in SSC (Voc) who were dropped-out from general education which is favorable for GOB goal because of GOB has

a goal to admit drop-out students in VE. Most of the students' (about 83.0%) father's educations were up to secondary level and also (about 92%) mother's educations were same. Most of the students' (63.0%) father's occupations were agriculture and business. Almost all the students' (93.0%) mother's occupations were housewives and most of the students' (76.0%) monthly family incomes were less than ten thousand BD Tk. All these indicators showed that most of the vocational students come from poor socio-economic backgrounds.

Most of the Trade instructors (56.2%) were replied that the quality of VE is good, but the Head teachers/Principals (85.0%), and 'guardians and social leaders' (76.1%) were not agreed with the same. Most students (73.0%) were agreed that VE was suffered from lack of awareness. According to the student opinions, SSC (Voc) course was appropriate for our social and country's need and other respondents were also agreed with the same. But, around two-fifth respondents (40.0%) were reported that trades were mismatched with the job markets. Almost all the students (88.0%) wanted to get admitted in the higher education. Almost all respondents of all types (students, 96.0%; Trade instructors, 87.5%; Head teachers/Principals, 85.0%; and guardians and social leaders, 94.4%) were agreed with the importance of VE.

9.2.2 Chapter Five

The findings revealed under the chapter titled **“Vocational Education and Its Present Status”** are as follows:

A few respondents (Head teachers/Principals, 10.0%; Trade instructors, 17.5%; 'guardians and social leaders', 16.2%; and students, 38.2%) were replied that the present status of VE is satisfactory. But near about half students (44.8%), Trade instructors (48.8%), and 'guardians and social leaders' (58.5%) were replied that it is moderate satisfactory. On the other hand, most of

the Head teachers/Principals (75.0%), one third Trade instructors (33.8%), and one fourth 'guardians and social leaders' (25.8%) were replied that it is not satisfactory. In case of student respondents, the bivariate analysis (χ^2 - test) were considered moderate satisfactory opinion as satisfactory opinion and the results revealed that the satisfactory opinion of students regarding the present status of VE was found statistically significantly associated with respondents' gender, fathers' education, mothers' education, district and types of institutions. And the binary logistic regression model were determined that respondents' gender, mothers' education, district, and type of institutions were significant predictors for the present status of VE. The respondents who were commented not satisfactory among all categories (80.0% to 100.0%) were agreed to develop the VE by the following steps: i) training of teachers and instructors, ii) infrastructure development, iii) curriculum and syllabus development, iv) increasing monitoring, v) creating scope of higher education, vi) financial and other supportive motivation, vii) creating scope of exporting skilled manpower, viii) introducing new demand oriented trades, ix) social advertising for awareness, x) expanding VE in root level, xi) increasing institutions, xii) increasing classrooms, xiii) increasing labs/instruments, and xiv) increasing numbers of trade.

Most of the Trade instructors (76.2%), Head teachers/Principals (75.0%) and guardians and social leaders (66.2%) were replied that VE institutions have no sufficient labs/instruments and other infrastructures. The χ^2 - test identified that having sufficient labs/instruments was found statistically significantly associated with district (for Trade instructors); gender and respondent's type (for guardians and social leaders). And the binary logistic regression analysis identified that district (for Trade instructors) and gender and respondents' types (for guardians and social leaders) were found significant predictors. Most of the Trade instructors (67.5%) and guardians and social leaders (58.5%) were agreed that VE has skilled teachers but a less than half portion

of Head teachers/Principals (45.0%) were agreed with the same. The χ^2 - test identified that having skilled teachers in VE were found statistically significantly associated with district and education (for Trade instructors); gender and respondent's type (for guardians and social leaders). And the binary logistic regression analysis identified that district (for Trade instructors) and gender and respondents' types (for guardians and social leaders) were found significant predictors for this. A two-fifth number of Head teachers/Principals (40.0%) and guardians and social leaders (45.8%) and most of the Trade instructors (67.5%) were commented that theoretical and practical learning of VE was good. The χ^2 - test identified that having good theoretical and practical learning in VE was found statistically significantly associated with district (for Trade instructors); respondent's type (for guardians and social leaders). And the binary logistic regression analysis identified that there is no factor (for Trade instructors) and respondents' types (for guardians and social leaders) were found significant predictors for this. Most of the Head teachers/Principals (70.0%) and Trade instructors (61.2%) and a less than half portion of guardians and social leaders (45.8%) were commented that trades are found appropriate for job markets. On the other hand, in case of 'guardians and social leaders' one third number of them (29.6%) were also commented that they do not know about this matter. The χ^2 - test identified that the comment 'trades are found appropriate for job markets' was found statistically significantly associated with district (for Trade instructors); and ages (for guardians and social leaders). And the binary logistic regression analysis identified that district (for Trade instructors) and ages (for guardians and social leaders) were significant predictors.

All respondents were agreed that apprenticeship of VE is must. Most of the students (73.2%) said that their learning status is good and the study content of VE is appropriate. All respondents were agreed with that lack of labs and instruments are liable for weak expertise of VE students.

The students who were dissatisfied with their learning status, they were commented about some causes of not good status of VE in institutional level. According to their opinions, the causes were: i) negligence and absence of teachers/instructors, ii) lack of sufficient classrooms, iii) lack of labs/instruments/training materials, iv) lack of supervision and monitoring of head of the institutions. The students did not get the lowest facilities in the institutional level were (according to ascending order): i) sufficient books in library, ii) sufficient fund of trade learning expenses, iii) availability of instruments, and iv) using lab facilities. Most of the students (55.2% to 82.0%) were commented that practical classes conducted regularly in their schools, teachers were taken examination to evaluate practical skill of related trades, teachers helped them outside the classroom in trade works, and teachers conducted extra class for weak students. But most of the Trade instructors (61.0%) were replied that they have no sufficient material for practical class. Almost all Trade instructors (97.5%) said that they feel necessity of the occupation related training and 73.8% were agreed that their salary is not sufficient as a teacher/instructor. All Head teachers/Principals (100.0%) were said that they perform proper monitoring in all aspects but most of the Head teachers/Principals (60.0%) were confessed that their institutions have no multimedia classrooms and sufficient labs/instruments/materials for conducting practical class.

9.2.3 Chapter Six

The findings revealed under the chapter titled **“Vocational Education and Its Problems and Challenges”** are as follows:

Most of the guardians and social leaders (80.0%) and Trade instructors replied that society treats VE in the negligible eyes. But Head teachers/Principals were not agreed with the same. Most of the students (86.0%) replied that they come in VE by their own intention (52.4%) and parent’s

intention (34.0%). Around 85.0% respondents were commented that all types of students should admit in VE, not only weak and drop-out students. Almost all of the respondents (85.0%) were agreed that enrolment of VE is found less than necessary. All types of respondents replied that the lack of social awareness was the main cause of low enrolment in VE.

Almost all the respondents (Trade instructors, 91.2%; Head teachers/Principals, 85.0%; and guardians and social leaders, 82.4%) were agreed with that rate of admission in VE is less than need. According to their opinion some causes were indentified for low enrolment in VE that were:

- i) **Less social dignity of vocational profession:** Most of the Trade instructors (75.3%), guardians and social leaders (70.15) and around half of the students were agreed with that less social dignity of vocational profession is a cause low enrolment in VE. The χ^2 - test identified that less social dignity of vocational profession was found statistically significantly associated with age, education class, father's education, district, and type of institution (for students); and age and respondent's type (for guardians and social leaders). And the binary logistic regression analysis identified that father's education (for students) and age and respondents' types (for guardians and social leaders) were significant predictors.
- ii) **Physical work-based nature of vocational profession:** Most of the respondents of all categories (students, 75.2%; Trade instructors, 78.1%; Head teachers/Principals, 70.6%; and guardians and social leaders, 64.1%) were agreed with this cause. The χ^2 - test identified that physical work-based nature of vocational profession was found statistically significantly associated with mother's education, and monthly family income (for students); and no background characteristics (for guardians and social

leaders). And the binary logistic regression analysis identified that mother's education and monthly family income (for students) and no background characteristics (for guardians and social leaders) were significant predictors.

- iii) **Lack of social awareness about VE:** Almost all Trade instructors (98.1%), Head teachers/Principals (94.1%), guardians and social leaders (91.8%) and most of the students (74.8%) were agreed with this cause. The χ^2 - test identified that lack of social awareness about VE was found statistically significantly associated with gender, education class, mother's education, father's occupation, and district (for students); and age and gender (for guardians and social leaders). And the binary logistic regression analysis identified that father's education, father's occupation and district (for students) and no background characteristics (for guardians and social leaders) were significant predictors.
- iv) **Lack of proper learning in VE:** Almost all Trade instructors (83.6%), Head teachers/Principals (94.1%), guardians and social leaders (84.6%) and most of the students (57.8%) and Head teachers/Principals (76.5%) were agreed with this cause. The χ^2 - test identified that lack of proper learning in VE was found statistically significantly associated with education class, father's education and occupation, mother's occupation, monthly family income, district, and type of institution (for students); and age and gender (for guardians and social leaders). And the binary logistic regression analysis identified that education class, father's occupation, district and type of institutions (for students) and age and gender (for guardians and social leaders) were significant predictors.

- v) **Comparatively high expense than general education:** Most of the respondents (Trade instructors, 75.3%; Head teachers/Principals, 64.7%; guardians and social leaders, 52.1%; and students, 71.6%) were agreed with this cause. The χ^2 - test identified that the comment comparatively high expense than general education was found statistically significantly associated with age, education class, district, and type of institution (for students); and respondent's type (for guardians and social leaders). And the binary logistic regression analysis identified that age, education class, district and type of institutions (for students) and respondents' types (for guardians and social leaders) were significant predictors.
- vi) **Absence of VE courses in the nearest institutions:** Most of the respondents (Trade instructors, 67.1%; Head teachers/Principals, 58.8%; guardians and social leaders, 53.0%; and students, 53.2%) were agreed with this cause. The χ^2 - test identified that the comment absence of VE courses in the nearest institutions was found statistically significantly associated with education class, father's education, mother's education, and monthly family income (for students); and age (for guardians and social leaders). And the binary logistic regression analysis identified that father's education, mother's education and monthly family income (for students) and age (for guardians and social leaders) were significant predictors.

Only a few numbers of Head teachers/Principals (15.0%) and guardians and social leaders (23.9%) and most of the Trade instructors (56.2%) were commented that SSC (Voc) course is qualitative. So, it is overall may be treated that SSC (Voc) course was not qualitative in Bangladesh. All categories of respondents were agreed to the causes of low quality of VE were: i) lack of skilled and trained teacher, ii) shortage of insufficient classroom, iii) lack of labs and

instruments, iv) lack of practical expertise of teacher and exercise of student, v) lack of sincerity and regularity of teacher and instructors, vi) lack of students own sincerity, vii) lack of guardians consciousness and help, and viii) comparatively weak students admit in VE.

- i) Most of the Trade instructors (73.8%), and Head teachers/Principals (75.0%) and almost all guardians and social leaders (83.1%) were agreed that students face negligence or noncooperation from others for admitting in VE. The χ^2 - test identified that the comment students face negligence and noncooperation from others for admitting in VE was found statistically significantly associated with father's education, mother's education, fathers' occupation, district, and type of institution (for students); and respondent's type (for guardians and social leaders). And the binary logistic regression analysis identified that father's education, mothers education, father's occupation, district and type of institution (for students) and respondents' types (for guardians and social leaders) were significant predictors.

Almost all respondents were agreed with the causes of negligence are: i) vocational profession is not enough prestigious, ii) physical work based profession, iii) influences of social custom, myth etc., iv) neighbors do not like it praise worthy, v) people neglect it absence of proper education, and vi) lack of opportunity of higher education.

Almost all (90.0%) Trade instructors, Head teachers/Principals and guardians and social leaders were agreed that peoples have no consciousness about VE. Almost all Head teachers/Principals and guardians and social leaders were agreed that after completion of SSC (Voc) course students do not gather enough knowledge for getting trade jobs. Around half of the Trade instructors were also agreed with the same. Almost all Trade instructors (95.0%) were agreed that low salary

structure is the main constraint to attract competent teacher in VE. For this reason, in spite of existing sufficient VE institutions (Govt. and Non govt.) in Bangladesh, skilled manpower is not increasing enough. Consequently, Trade instructors were strongly mentioned some matters as constraints of their good teaching: i) lack of labs/instruments/trade related materials (96.4%), ii) lack of intention of students towards trade related works (90.9%), iii) lack of practical skill of instructors (78.2%), and iv) lack of trade related contemporary knowledge (69.1%). The trade instructors were also mentioned some matters as constraints for student good learning: i) weak meritorious students, so they cannot learn well, ii) lack of guardians' awareness about VE, iii) students do not get help in their house about their lesson and absence of helping environment, iv) weak primary and lower secondary education, v) lack of skilled teacher and instructor, and vi) lack of trade related practical exercise.

Almost all Trade instructors and guardians and social leaders and most of the Head teachers/Principals (80.0%) were agreed that child marriage is an obstacle of low entrance of girls in VE. Most of the Trade instructors, Head teachers/Principals (around 75.0%) and almost all guardians and social leaders (85.0%) were agreed with the social myth, idioms etc. as causes of low girl's entrance in VE. Most of the guardians and social leaders (73.2%) were also agreed with religious restrictions as a cause of low girl's entrance in VE. Most of the Head teachers/Principals and guardians and social leaders (around 75.0%) were agreed that traditional negative social values are great obstacle for entering and achieving skilled in traditional VE trades like weaving (Tanty), food processing (Ghosh), etc.

The Head teachers/Principals and guardians and social leaders also were agreed with some challenges of low enrolment in VE which are as follows:

- a) Most of the Head teachers/Principals (70.0%) and almost all guardians and social leaders (84.5%) were agreed with the comment that In VE, profession has to settle in the starting stage of VE but it is difficult to decide profession for the students and parents in that stage (earlier age). So, they feel indecision to get admitted in VE.
- b) Almost all Head teachers/Principals (85.0%) and guardians and social leaders (88.7%) were agreed with the comment that in general education, it is no need to settle profession in earlier stage. After completion of education, students have enough scope to settle job/profession, though it is difficult to manage but intention of high level profession and open opportunity they remain in general education.
- c) Almost all Head teachers/Principals (95.0%) and guardians and social leaders (90.1%) were agreed with the cause that VE is not enough prestigious, because of society think that only weak students admit in VE and their opportunity and hierarchy are limited.
- d) Most of the Head teachers/Principals (80.0%) and guardians and social leaders (83.1%) were agreed with that lack of higher education in related trade is a cause of low enrolment.
- e) Almost all Head teachers/Principals (90.0%) and guardians and social leaders (83.8%) were commented that lack of sufficient institutions in local area is a cause for low enrolment.

Almost all Trade instructors, Head teachers/Principals and guardians and social leaders were said that steps should be taken to increase awareness as remedies of low enrolment are as follows:

- a) It may be arranged various sessions for career counseling in lower secondary level.

- b) For awareness building about VE, it may be involved the all level public representatives.
- c) In the admission session, it may be used poster, handbills, brochure, road show, myking etc for advertising.
- d) The regulatory authorities like BTEB, DTE, MOE and MOLE may be advertised jointly or separately in Radio, TV and Billboard.
- e) It may be formed committee by participating students, teachers and guardians for creating awareness of VE.

9.2.4 Chapter Seven

The findings revealed under the chapter Titled **“Vocational Education and Its Prospects”** are as follows:

According to almost all respondent’s opinion, the research findings exposed that the VE has great importance in the following sectors:

- a) It has a great contribution to become drop-out and weak student as a skilled manpower as a very much suitable education system.
- b) VE reduces unemployment and it is helpful to create self-employment by constructing small industries and workshops.
- c) VE reduces child labor and child abuse.
- d) VE helps to earn more foreign currency by providing skilled manpower for export.
- e) VE is crying need for Bangladesh as a populous country.

Almost all respondent were agreed with the need of expansion of VE for some reasons are as follows:

- a) VE is demand oriented education.
- b) VE creates street boy as skilled manpower.
- c) VE helps the country to mitigate the demand of skilled workers locally and abroad.
- d) VE contributes society a lots involving of girls in income generating activities.
- e) VE helps to develop girl's empowerment.
- f) VE is the only way to develop skilled manpower in populous country.
- g) It should be introduce more trades related to agriculture based.

Almost all respondent were agreed with the comment that for increasing status of vocational profession, it should be compulsory by laws that no one can involve in vocational profession without professional degree and authentic license. Almost all respondents were agreed with the need of expansion of VE in Bangladesh and were agreed with the steps for expansion of VE: i) to build up awareness of people about facilities of VE, ii) to take various steps to reduce negative attitude about VE, iii) to create necessary and sufficient scope to admit in VE, iv) to take initiative for expansion of VE by the Government and Non government sector, v) to create necessary and sufficient job sector for VE graduates, vi) VE is the tool of making entrepreneur, vii) to create opportunity for higher education in related trades after passing SSC/HSC (Voc) course, viii) to advertise about women empowerment through VE, and ix) it is necessary to establish VE institutions independently and also attached with general education institutions as a separate unit.

9.2.5 Summary of the major findings

The major findings from this research which are gathered from quantitative analysis (relations and effects between the variables of problems and prospects of VE and the background

characteristics of the respondents) can be summarized and it is brought into the chapter eight (presentation and analysis of qualitative data) for better exploring the possible explanations of findings by interviewing data from most important respondents. The findings of qualitative analysis are also the summary of major findings which are constructed under the some major themes as follows:

According to respondent's opinion, the research finding are presented here as minor theme in under major theme. The major themes were: i) attitude towards vocational profession; ii) physical facilities; iii) present teaching learning situation of SSC (Voc) course; iv) management; v) scope of study; vi) quality of education; vii) motivational task; viii) women entrance in VE; and ix) factors related to prospect of VE.

Under the major themes the study were identified some minor themes as the factors of problems and prospects of VE. The findings revealed as minor themes under the major themes are as follows:

Major theme: attitude towards vocational profession

Majority respondents treated the following minor themes as the problems of VE: i) less social dignity of vocational profession; ii) vocational profession treated as low graded job for it's physical labor oriented nature; iii) lack of social awareness about VE; iv) lack of quality education in VE; v) expense of VE is more than general education; vi) insufficient institution facility in nearest areas; and vii) scope of higher education in related trades are limited.

Major theme: physical facilities

Majority respondents treated the following minor themes as the problems of VE: i) shortage of skilled teachers and instructors in VE; ii) lack of sufficient classrooms in VE institutions

Major theme: present teaching learning situation of SSC (Voc) course

Majority respondents treated the following minor themes as the problems of VE: i) lack of labs/instruments in related trades; ii) lack of practical learning iii) lack of awareness and cooperation of guardians to learn trade lesson in house.

Major theme: management

Only most of the guardians and social leaders treated the following minor theme as the problem of VE: i) Lack of monitoring of the head of the institutions.

Major theme: scope of study

Majority respondents treated the following minor themes as the problem of VE: i) number of trade are insufficient in institutional level.

Major theme: quality of education

Majority respondents treated the following minor themes as the problems of VE: i) weak students admitted in VE, so, they cannot achieve appropriate skills after completion of vocational course; ii) previous learning or basic knowledge of VE students are very weak; iii) lack of trade related student practical work iv) there is no scope of trade related practical works in household area of maximum students; v) lack of professional and trade related knowledge, skill and training of teachers/Trade instructors; and vi) low salary of Trade instructors.

Major theme: motivational task

Majority respondents treated the following minor themes as the problems of VE: i) vocational students treated as negligible one by neighbors/others for its low dignity or status; ii) social customs, idioms and dilemma create obstacles to admit in VE; iii) In VE, one has to select profession in early age, so scope of accepting profession might be limited, for this reason, many students do not want to admit in VE; and iv) social kinship, religious restrictions and child marriage are great obstacles for admitting in VE.

Major theme: prospects of vocational education

Majority respondents treated the following minor themes as the problems of VE: i) VE is suitable education system for weak meritorious and drop-out students; ii) VE creates scope of self-employment and entrepreneurship; iii) VE sometimes treats alternative means of employability of general educated people; iv) VE reduces child labor and child marriage; v) increasing income level of worker by achieving skill through the VE; vi) by achieving skills through VE, one can migrate in abroad as skilled worker and earn more than unskilled migrant; vii) to create skilled manpower, VE is the most appropriate education system of Bangladesh as a populous country; viii) to increase dignity of vocational profession, it should be involved those people who are educated from vocational institutions; ix) VE is demand oriented education system for its unemployment removing capacity; x) VE is a means of creating vulnerable and street boy as a skilled labor force; xi) VE involves women in more income generating activities; xii) VE is a tool of women empowerment; xiii) VE creates more field of employment; and xiv) it is a dire need to establish a vocational university in Bangladesh for higher education in related vocational trades.

CHAPTER TEN

Implication and Conclusion

10. Introduction

The aim of this chapter was to explain the implication and conclusion of this study by the major findings and justified opinions of the respondents. The implications were explored in three contexts namely practice, policy and further research. At the last stage of this study, it is necessary to define how the study was fruitful for its audiences. As the mixed methods research approach, the study contributed the results more significant in both aspects like numerical and inferential.

10.1 Implication of the Findings

This section presents the implications drawn from the findings of this research which are designed according to the real need of the society (practice), policy aspects and for further research.

10.1.1 Implication for Practice

By this study the authority of VE will be able to know the actual status of VE in respects of its challenges and prospects. The authority will get idea about what they should do for the improvement of present status of VE enrolment and other deficits. They will be able to know about every corner of VE in developing and diversifying to mitigate the local and global needs.

Other Government agencies could use it for developing the skill related issues and they will also get an exact idea of the situation prevailing in the fields. The research findings will help them to

overcome the negative attitude and negligence existing in VE. They will also have a clear picture and guideline how to contribute VE to develop economic growth of Bangladesh.

The findings of this research suggested the authority and stakeholder to improve the present state of VE by some qualitative and quantitative steps. The qualitative steps are providing trade oriented training of instructors, development of infrastructure, strengthening monitoring of the authorities in all levels, creating scope of higher education in related trades (may be established a vocational university), provide financial and others supportive motivations for poor and vulnerable students, creating scope of exporting skill manpower in abroad, introduce new demand oriented trades for diversifying job sectors, advertising for social awareness for facing some social dilemma and myth and for ensuring entrance of girls and poor people expanding VE in root level by establishing new institutions or separate unit in existing institutions. The quantitative steps which are also contribute to improve VE are increasing institutions, increasing classroom in existing institutions, increasing labs/instruments and increasing number of trades in all institutions.

10.1.2 Implication for policy

The Ministry of Education and other Government regulating agencies will get guidelines for developing VE courses for the purpose of skill development and formatting policies for the improvement of low qualities VE and increasing enrolment in all courses.

The study findings also help the policy makers to formulate policy in many aspects relating to eradicate problems and overcoming challenges of VE. Some policy suggestions are justified by this study. These are as follows:

- 1) **Career counseling:** government can be formulated policy to be done career counseling by their concern authorities. It should be regular and might be weighted the most to create awareness among the students, parents, teachers and others related stakeholders.
- 2) **Involvements of public representatives:** public representatives always play a vital and contributory role in our society. For development and increasing enrolment of VE, their involvements may be brought fruitful results.
- 3) **Teacher's role:** Because of their direct involvements, teachers can play a vital role to increase enrolment and development of VE. Teachers have direct influence to the students and parents and many other case people come to the teachers for educational opinion purpose.
- 4) **Instrumental advertisement by the institutions and higher authority:** the researcher has justified the step that the government can instructs the institutions to advertise in admissible season by the poster, handbill, brochure, signboard, banner, road show, tape recording, etc and the higher authority like MoE, MoLE, DTE, and BTEB may be advertised jointly or singly using by Radio, TV, Newspaper, Billboard etc. for expansion and awareness building to the people about VE. They also may be arranged seminar, symposium, education fair, quiz competition, entrepreneurship fair etc. for creating popularity of VE.
- 5) **Forming committee by students, teachers, and guardians jointly:** it also may be played important role to achieving goal and target to enroll in VE and to develop VE in satisfactory level in every aspects.

10.1.3 Implication for Further Research

This research is limited to search only present status, problems, and prospects of VE due to some constraints. This research is reserved only in SSC (Voc) course to know the same status and it is conducted by taking sampling area from few districts of Rajshahi Division of Bangladesh. A further research can be done to determine the impacts of SSC (Voc) course to build up the skilled manpower in Bangladesh and according to the researcher it is a must for the betterment of SSC (Voc) course, the education system of Bangladesh and the skilled development strategies of Bangladesh. It is very important for VE to study on how to perform itself and its courses attracts the target group of students for national need and development. There may be an in depth study by selecting broader study area on the impact of SSC (Voc) course to develop the skill of manpower and contributing the socio-economic condition of the country.

10.2 Limitations of the Study

a) For economic and time constraints the study is limited to the SSC level vocational course students.

b) The study is confined to a few selected schools in three districts (Rajshahi, Bogra and Natore) of Rajshahi Division.

Beyond this study area and methodology the results and findings may vary.

10.2 Conclusions

The educational system mainly survives for its quality and time befitted demand. The SSC (Voc) course deserves the qualities and usefulness enough to have beneficial effects on the creation of skilled manpower. Though most of the respondents (all types) were thought that there are many kinds of challenges destroy the image of VE in regards for the people who are target group for enrolling in VE. In this research it is proved that if the authority takes proper steps to reduce the causes of low enrolment, it must be contributed a lot to develop skilled man power, as a result the position of Bangladesh will be changed. It is also proved that the VE is very much suitable for Bangladesh for various aspects of growth like self-employment, entrepreneurship, women entrance in the income world, etc. Even this research has revealed that a large number of constraints of enrolment in VE enforces by our traditional mind setting and social customs, myths, etc. The concerned authority of VE needs to work to develop the quality of VE incorporating the suggestions given by the respective experienced persons and stakeholders, then it will change as a lamp of desire and will open the thousand doors of prospects. The study results revealed that some fields of prospects with the strong consent of respondents that is very important for a developing country like Bangladesh.

Besides, the concerned authority of VE should take necessary promotional activities to make VE attractive, qualitative, and demands oriented; and motivate the students to admit in VE. The other relevant departments should make efforts to make the same.

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APPENDIX – A

Questionnaire for PhD Research

Questionnaire for Students

Research Title: Problems and Prospects of Vocational Education: An Empirical Study in Rajshahi Division, Bangladesh.

Instructions for Respondent: Respected respondent, your information is only for research purpose and your identity must be concealed. Your cooperation will enrich the study. Thank you all.

First Part: Personal Information

Please tick () the right answer

1. Name : _____ Gender : _____
2. Name of School : _____
3. Name of Class : _____ Trade : _____ Roll No.: _____ Age: _____
4. Fathers/Guardians Occupation:
☐ Service ☐ Agriculture ☐ Business ☐ Agriculture and Business
☐ Service and Business ☐ Service and Agriculture ☐ Service, Business and
Agriculture ☐ Others
5. Mothers Occupation : ☐ Housewife ☐ Service ☐ Business ☐ Others
6. Fathers Educational Qualification :
☐ MA/M.Sc/M.com/Equivalent ☐ BA/B.Sc/B.com/Equivalent ☐ HSC/
Equivalent ☐ SSC/Equivalent ☐ Primary/Equivalent ☐ Literate ☐ Illiterate
7. Mothers Educational Qualification :
☐ MA/M.Sc/M.com/Equivalent ☐ BA/B.Sc/B.com/Equivalent ☐ HSC/
Equivalent ☐ SSC/Equivalent ☐ Primary/Equivalent ☐ Literate ☐ Illiterate
8. Family Monthly Income (BDT): _____
Under 2000 ☐ 2000-5000 ☐ 5001-10000 ☐ 10001-15000 ☐ 15001-20000 ☐
20001-30000 ☐ 30001-40000 ☐ 40001 and upper

Second Part: Questions about Vocational Education

Questions about intention of vocational education

Please tick the right answer

1. Do you think that VE is dire need of Bangladesh? ☐ Yes ☐ No
2. All parents want to see that their children are involved in higher profession. Society thinks that vocational professions hold low dignity. For this reason, parents do not send their children to receive vocational education. Do you agree with this opinion? ☐ Yes ☐ No
3. Whose intention are you come in Vocational Education
☐ Parent's intention ☐ Friends/Neighbors/Relatives suggestions
☐ Teacher's suggestions ☐ Own intention
☐ Have any other causes, please write -
4. Do you think that lack of awareness exist in VE? ☐ Yes ☐ No
5. What type of awareness should develop for receiving more VE?

Comments	Answer	Answer
Social awareness	Yes	No
Parents/Guardian awareness	Yes	No
Student awareness	Yes	No
Any other cause you feel. Please write-		

Questions about appropriateness of vocational education

1. Do you think that techniques that you learn in VE are useful in your daily life? ☐ Yes ☐ No
2. Do you feel good that you study in vocational education? ☐ Yes ☐ No
3. Do you understand study content clearly that teach in class rooms? ☐ Yes ☐ No
4. Do you feel one or more subjects are very difficult for you that teach in vocational class or course? ☐ Yes
☐ No

5. Do you feel after completion of SSC, you will be able to perform as a skilled worker in your trade? ☐ Yes
☐ No
6. Vocational Education is a work based education. So, it is insured learner's professional life with any employment. Do you agree about this comment? ☐ Yes ☐ No
7. Do you feel honored for such types of jobs that you will get after completion of vocational education (SSC Voc)? ☐ Yes ☐ No
8. Do you think limited job scope in vocational profession? ☐ Yes ☐ No
9. Do you think less income in vocational profession? ☐ Yes ☐ No
10. Do you think there are vast scopes of employment in foreign countries after completion the VE?
☐ Yes ☐ No
11. Do you think that expense of VE is more than general education? ☐ Yes ☐ No

Questions about admission of vocational education

1. Do you feel which the following causes behind the less admission in vocational education are?

Comments	Answer	Answer
Misconception about less social dignity of vocational profession	Yes	No
It is physical work based jobs	Yes	No
Lack of social awareness	Yes	No
Lack of proper learning in VE	Yes	No
Lack of consistency between theoretical and practical education	Yes	No
Misconception about less income of VE	Yes	No
Expense of vocational education is high	Yes	No
Subject matter of vocational education is hard	Yes	No
Scope of higher education is limited	Yes	No
Absence of vocational course in nearest institutions	Yes	No
Any other cause you feel. Please write-		

2. What purposes have you admitted in vocational education (i.e. SSC vocational)?

Comments	Answer	Answer
Since it is work based education, and easy to get job after completion of education (course)	Yes	No
Since it is work based education, and easy to create self employment after completion of education (course)	Yes	No
Since it is work based education, and it is easy and profitable to go abroad as a skilled worker after completion of education (course)	Yes	No
It is easy to bear own educational expenses by part time jobs	Yes	No
It is easy to pass the examination	Yes	No
syllabus are easy and short	Yes	No
Any other cause you think. Please write-		

3. What do you want after passing the SSC (Voc) level?

- ☐ I want to get admitted in higher education
- ☐ I want to seek/involve in related trade jobs/self employment

Questions about present situation of vocational education

1. How many vocational trades exist in your school? Please write in follows-

1. 2. 3. ... 4.

2. What are the causes behind the choosing of this trade that you are reading?

- ☐ Scope of vast jobs/works
- ☐ I have more interest to perform this type of jobs/work s
- ☐ I have been chosen it by the influence of my guardian
- ☐ I have been chosen it by the influence of my teacher
- ☐ Others sources of influences. Please mention -

3. Do you think that the need to open more vocational trade in your school? ☐ Yes ☐ No

4. Is it sufficient for doing trade jobs which you learn in the SSC (Voc) level? ☐ Yes ☐ No

5. If the answer of Q. no. 4 is No, What are the following problems do you feel?

Comments	Answer	Answer
Study content is not sufficient	Yes	No
Shortage/Insufficient class room	Yes	No
Lack of labs and instruments of related trade	Yes	No
Lack of infrastructure of the institution	Yes	No
Lack of skilled teacher/instructor	Yes	No
Shortage of teacher/vacancy of teacher	Yes	No
Lack of sincerity and regularity of teacher	Yes	No
Lack of monitoring of the head of the institution	Yes	No
Lack of knowledge and pedagogy of teaching of teacher	Yes	No
Lack of trained teacher	Yes	No
Lack of proper co-operation of family	Yes	No
Any other cause you feel. Please write		

6. Do you learn your trade lesson/work practically? ☐ Yes ☐ No
7. Do you think that Study content of SSC (Voc) is sufficient and skilled based? ☐ Yes ☐ No
8. Do you think have consistency between theoretical and practical learning in the study content of vocational education? ☐ Yes ☐ No
9. Do you feel the representation of the study content of the books is hard? ☐ Yes ☐ No
10. Are teaching learning conditions of trades good in your school? ☐ Yes ☐ No
11. If it is not good condition then why?

Comments	Answer	Answer
Lack of sufficient classroom	Yes	No
Lack of lab/instruments/equipments	Yes	No
Lack of monitoring of head of institution	Yes	No
Negligence of teachers	Yes	No
Lack of skill/efficiency of teacher/instructor	Yes	No
Any other cause if you feel. please write		

12. Do you get the following facilities in what type of scale in your school's classroom/lab?

Conditions and facilities of classroom/lab	Scale		
	sufficient	moderate	Not suffi.
Cleanliness			
Size of classroom			
Sufficiency of light and air			
Seat arrangement of students			
Facilities of chalkboard			
Arrangement of demonstration of lesson			
Facilities of using lab for students			
Sufficiency of instruments of lab			
Supply/usage of study materials in classroom			
Facilities of available books in library			
Sufficient money supply for trade teaching/learning			
Sufficient time allocation for class/practical session			

13. How satisfactory the present conditions of VE are you feel?

☐ Satisfactory ☐ Moderate satisfactory ☐ Not satisfactory

14. What should be done if the present situation of VE is not satisfactory/moderate satisfactory?

Comments		
Qualitative improvements	Answer	Answer
Training of teachers/instructors	Yes	No
Infrastructure development	Yes	No
Curriculum and syllabus development	Yes	No
Increasing monitoring	Yes	No
Creating scope of higher education	Yes	No
Financial and other supportive motivation	Yes	No
Creating scope of exporting skill manpower	Yes	No
Introducing new demand oriented trades	Yes	No
Social advertising for awareness	Yes	No
Expanding vocational education in root level	Yes	No
Any other options you think. Please write		
Quantitative improvements	Answer	Answer
Increasing student enrollment	Yes	No
Increasing institutions	Yes	No
Increasing classrooms	Yes	No
Increasing lab/instruments	Yes	No
Any other options you feel. Please write		

15. Does practical class conduct in your school regularly? ☐ Yes ☐ No
16. Are sufficient instruments/labs available in your school for conducting practical class? ☐ Yes ☐ No
17. Does the teacher conduct any examination for student in order to evaluating the proper practical skills of trade learning? ☐ Yes ☐ No
18. Does the teacher conduct any extra class for weak students? ☐ Yes ☐ No
19. Does the syllabus of trade course finish in proper time? ☐ Yes ☐ No

Questions about problems/obstacles of vocational education

1. Do you face any negligence/non co-operation from others for receiving VE? ☐ Yes ☐ No
2. If answer is yes of Q. no 1, then mention the proper causes of negligence of the followings.

Comments	Answer	Answer
Vocational education is not enough prestigious	Yes	No
It is physical labor oriented	Yes	No
Prospects of high income is low	Yes	No
Influence of social custom, myth and idioms etc	Yes	No
Neighbors do not take it praise worthy	Yes	No
It is good in demand but absence of proper practical education all people neglect it	Yes	No
Higher education is limited in related trades	Yes	No
Any other cause, please write -		

3. Which are the obstacles for women to entrance VE?

Comments	Answer	Answer
Child marriage	Yes	No
Religious restriction	Yes	No
Social myth and bad culture	Yes	No
Any other option. Please write-		

4. What type of obstacles/challenges do you think existing in VE of Bangladesh?

Comments	Answer	Answer
Lack of awareness of people about VE	Yes	No
Lack of initiative and patronization of govt. about expansion of VE	Yes	No
Lack sufficient vocational institutions	Yes	No
Lack of information to the people about VE	Yes	No
Negative attitude about VE	Yes	No
Religious restriction to admit girls in VE	Yes	No
Misunderstanding about sufficient job scope of VE	Yes	No
Scope of higher education is limited after SSC/HSC (Voc)	Yes	No
Please write any other obstacles		

5. Do you think that increasing skill of woman by providing VE may be an instrument of woman empowerment and gender discrepancy? ☐ Yes ☐ No
6. Do you think that the main obstacles of expansion of VE are lack of people awareness? ☐ Yes ☐ No
7. What should be done to increase people awareness about VE?

Comments	Answer	Answer
Carrier counseling may be done among the students by the initiative of BTEB and DTE	Yes	No
Involving public representatives in school activities to build up awareness about the importance of VE	Yes	No
Teachers can play the vital role	Yes	No
Govt. can instruct the schools to advertise with the poster, handbills, brochure, road show, myking etc. before admission season	Yes	No
BTEB, DTE, MOE and MOLE may be advertised jointly/singly using by Radio, TV, and Billboard	Yes	No
For creating awareness, may be form a committee in school level by participating students, teachers and guardians by leading an energetic teacher	Yes	No
Please write any other comments		

8. VE is work based and training oriented education. When one cannot achieves proper skill at his trade works after completing SSC (Voc) course for some lacks, then others do not want to admit into VE by seeing their unskilled. Do you agree with this statement which is a great problem of enrolment of VE? **Or**

Less quality of SSC (Voc) course is a great obstacle for expansion of VE. Do you agree with this opinion?

☐ Yes ☐ No

Questions for importance of vocational education in Bangladesh

1. Do you think that VE is an instrument of self employment? ☐ Yes ☐ No
2. Do you think that VE is helpful to construct small industries and workshops? ☐ Yes ☐ No
3. Do you think that VE is appropriate career option for weak students? ☐ Yes ☐ No
4. There are a large number of higher educated jobless people in Bangladesh. Do you think that VE is an alternative option of them to get jobs or self-Employment? ☐ Yes ☐ No
5. Do you agree that VE reduces child labor? ☐ Yes ☐ No
6. Do you think that VE increases income level by developing skills? ☐ Yes ☐ No
7. Do you think that it is possible to earn more foreign remittance by exporting skilled manpower through expansion of proper VE? ☐ Yes ☐ No
8. Vocational and technical education is a crying need for developing our populous country Bangladesh. Do you agree with this comment? ☐ Yes ☐ No
9. Do you feel women should be involved more in VE? ☐ Yes ☐ No
10. If answer is Yes of Q. no. 9, please mention which causes are of the followings?

Comments	Answer	Answer
VE reduces child marriage	Yes	No
Women can involve many others income generating activities out of household works	Yes	No
To create many opportunities to become a women entrepreneur	Yes	No
Any other options, please write-		

11. Do you think that involvement of many more vocational educated person can improve the dignity of vocational profession? ☐ Yes ☐ No

Questions for expansions of vocational education

1. Do you think that need vast expansion of VE for preparing skilled manpower in Bangladesh? ☐ Yes ☐ No
2. Which are the following causes of less intention you feel to admit in VE in Bangladesh?

Comments	Answer	Answer
Lack of proper conception about vocational education	Yes	No
It is physical labor oriented job/work	Yes	No
Many trade works is known in society as lower level job/work	Yes	No
Scope of income is low	Yes	No
Scope of job/work is limited	Yes	No
It is misconception that there is no scope for foreign job	Yes	No
Lack of sufficient advertisement	Yes	No
It is misconception that it is expensive education	Yes	No
It is known in society that it is not enough prestigious	Yes	No
Lack of high salary in job market	Yes	No
Lack of scope of higher education in related trade	Yes	No
Any other cause you feel please write-		

3. Should you feel need of expansion of VE in Bangladesh? ☐ Yes ☐ No
4. Why should you feel need of expansion of VE? Please tick the right answers of the following:

Comments	Answer	Answer
VE creates skilled manpower	Yes	No
Lack of skilled manpower in Bangladesh	Yes	No
Huge general higher educated people are jobless	Yes	No
Reduce child labor and create scope to become skill manpower	Yes	No
Create many scope of self employment and reduce job crisis	Yes	No
Creating scope of entrepreneurship	Yes	No
Increase income in home and abroad	Yes	No
Increase foreign remittance by exporting skilled manpower	Yes	No
Involve girls in income generating activities	Yes	No
Any other cause you feel please write		

5. Should you feel what types of steps need to expand VE in Bangladesh?

Comments	Answer	Answer
To build up awareness of people about the facilities of VE	Yes	No
To take various steps to reduce negative attitude about VE	Yes	No
To create necessary and sufficient scope to admit in VE	Yes	No
To take initiatives for expansion of VE by the Govt. and NGO	Yes	No
Any other options please write		

6. Do you feel whose contribution is more necessary for expansion of VE?

Options	Answer	Answer
Govt.	Yes	No
Peoples of the country	Yes	No
NGO	Yes	No
Parents/guardians	Yes	No
Teachers	Yes	No
Others please write		

7. Do you feel what types of problems are existed to expand VE?

Comments	Answer	Answer
Lack of awareness of peoples	Yes	No
Lack of Govt. initiatives and Patronizations	Yes	No
Lack of schools/institutions	Yes	No
Lack of more information among the peoples about VE	Yes	No
Negative attitude about VE	Yes	No
Misconception about crisis of employments after completion of VE	Yes	No
Lack of availability of skilled teachers/instructors	Yes	No
Any other problems you feel please write		

8. Please write additional opinion except the above if you think -

Signature

Phone No.

APPENDIX – B

Questionnaire for PhD Research

Questionnaire for Trade instructors/Head teachers/Principals/Guardians and Social Leaders

Research Title: Problems and Prospects of Vocational Education: An Empirical Study in Rajshahi Division, Bangladesh.

Instructions for Respondent: Respected respondent, your information is only for research purpose and your identity must be concealed. Your cooperation will enrich the study. Thank you all.

First Part: Personal Information of Trade instructors/Head teachers/Principals/Guardians and social Leaders

A. Personal Information of Trade Instructors

Please tick () the right answer

1. Name :
2. Teaching experiences: year
3. Gender : ☐ Male ☐ Female
4. Age : year
5. Name of institution where you are employed :
6. Category of your institution : ☐ Govt. ☐ MPO listed
7. Educational qualification :

Name of Exam	Group	Year of exam	Division/class	Board/university
SSC/Equivalent				
HSC/Equivalent				
Bachelor/Equivalent				
Masters/Equivalent				

8. Training achieved :

Name of training	Name of tr. institute	Sub. Of training	Period of training
B Ed			
M Ed			
TQI			
Others			

9. Training achieved about trade :

Name of training	Name of tr. institute	Sub. Of training	Period of training

B. Personal Information of Head Teachers/Principals

Please tick () the right answer

- Name :
- Teaching experiences: year
- Gender : ☐ Male ☐ Female
- Age : year
- Name of institution where you are employed :
- Category of your institution : ☐ Govt. ☐ MPO listed
- Educational qualification :

Name of Exam	Group	Year of exam	Division/class	Board/university
SSC/Equivalent				
HSC/Equivalent				
Bachelor/Equivalent				
Masters/Equivalent				

8. Training achieved :

Name of training	Name of tr. institute	Sub. Of training	Period of training
B Ed			
M Ed			
TQI			
Others			

C. Personal Information of Guardians and Social Leaders

Please tick () the right answer

1. Name :
2. Designation:
3. Gender : ☐ Male ☐ Female
4. Age : year
5. Name of institution where you are employed:

Second Part: Questions about Vocational Education

Questions about intention of vocational education

Please tick the right answer

1. How intention of students to admit in VE at present?
☐ Moderate intention ☐ Strong intention ☐ No intention
2. If the students are no intention/moderate intention about VE then what do you feel the cause? Please write -
3. Does society take to get admission into VE as negligible eyes? ☐ Yes ☐ No
4. Do you think that the social dignity of vocational trade is low? ☐ Yes ☐ No
5. Generally guardians want to admit weak meritorious child in VE. Do you agree about this opinion?
☐ Yes ☐ No

6. All parents want to see that their children are involved in higher profession. Society thinks that vocational professions hold low dignity. For this reason, parents do not send their children to receive VE. Do you agree with this opinion? ☐ Yes ☐ No
7. Do you feel how much satisfactory of various vocational trades income in Bangladesh?
☐ Satisfactory ☐ Moderate satisfactory ☐ Not satisfactory
8. How much do you think VE is expensive?
☐ Expensive ☐ Moderate expensive ☐ Not expensive

Questions about admission of vocational education

1. Do you feel what types of students should admit into VE? Please tick the followings options.

Comments	Answer	Answer
Meritorious students	Yes	No
Mid level students	Yes	No
Weak students	Yes	No
Drop-out students from general education	Yes	No
All types of students because all scope higher studies exist	Yes	No
Jobless/unskilled worker	Yes	No
Any other comments. Please write		

2. Do you think that the rate of admission of VE is less than to need? ☐ Yes ☐ No
3. Govt. has a goal that enrollment rate of VE will increase 20% by 2020 in comparison with general education. Do you think the enrolment of VE is increasing day by day? ☐ Yes ☐ No
4. Do you think which following causes lead the less enrolment in VE?

Comments	Answer	Answer
Misconception about less social dignity of vocational profession	Yes	No
It is physical work based job	Yes	No
Lack of social awareness	Yes	No
Lack of proper learning in VE	Yes	No

Lack of consistency within the theoretical and practical education	Yes	No
Misconception about less income of VE	Yes	No
Expense of VE is high	Yes	No
Subject matter of VE is hard	Yes	No
Scope of trade related higher education is limited	Yes	No
Absence of vocational course in nearest institutions	Yes	No
Any other cause you feel. Please write-		

Question about present situation of vocational education

1. Do you think that Bangladesh has need VE? ☐ Yes ☐ No
2. How much satisfactory do you think the present conditions of VE?
☐ Satisfactory ☐ Moderate satisfactory ☐ Not satisfactory
3. What should be done if the present conditions of VE is not satisfactory/moderate satisfactory?

Comments		
Qualitative improvements	Answer	Answer
Training of teachers/instructors	Yes	No
Infrastructure development	Yes	No
Study content development	Yes	No
Increasing monitoring	Yes	No
Creating scope of higher education	Yes	No
Financial and other supportive motivation	Yes	No
Creating scope of exporting skill manpower	Yes	No
Introducing new demand oriented trades	Yes	No
Social advertising for awareness	Yes	No
Expanding vocational education in root level	Yes	No
Any other options you feel. Please write		

Quantitative improvements	Answer	Answer
Increasing student enrollment	Yes	No
Increasing institutions	Yes	No
Increasing classrooms	Yes	No
Increasing lab/instruments	Yes	No
Any other options you feel. Please write		

4. Vocational education will be start from class nine according to NEP-2010. Do you agree with this policy?

☐ Yes ☐ No

5. What type of VE should be introduced?

☐ Short course like trade training course, basic skill trainings etc.

☐ Long course like certificate course, diploma etc.

☐ Both

☐ Others type courses. Please write -

6. As a type of VE, do you think SSC (Voc) is appropriate? ☐ Yes ☐ No

7. Do you think SSC (Voc) is appropriate with social and state need?

8. Do you think the study content of SSC (Voc) is sufficient and skilled based? ☐ Yes ☐ No

9. Do you think have consistency between theoretical and practical learning in the study content of VE?

☐ Yes ☐ No

10. Do you think trades of VE are fit and sufficient for job market demand? ☐ Yes ☐ No

11. Do you think the quality of theoretical and practical learning of VE is good? ☐ Yes ☐ No

12. Do you think that skilled instructors exist in VE? ☐ Yes ☐ No

13. Do you think that labs/equipments/instruments and infrastructure are sufficient for VE? ☐ Yes ☐ No

14. Do you feel the SSC (Voc) is qualitative? ☐ Yes ☐ No

15. If the answer is no of question no. 6, then why? (please tick the following statement)

Statement	Answer	Answer
Lack of skilled and trained instructors	Yes	No
Negligence/absence of teachers/instructors	Yes	No
Shortage of class room	Yes	No
Lack of labs and instruments	Yes	No
Lack of practical practices	Yes	No
Lack of students own sincerity about learning of trade works	Yes	No
Lack of guardian's consciousness and co-operation	Yes	No
Lack of monitoring of the head of institution	Yes	No
Vocational trades are not appropriate for market demand	YES	No
Any other cause you feel please write		

16. In the SSC (Voc) course on going vocational trades of maximum institutions of Bangladesh are few in number. It should be introduced more vocational trades in according to locality and capacity of institutions as well as demand of job market. Do you agree with this statement? ☐ Yes ☐ No

17. Do you think it should be introduced apprenticeship system in trade works in the SSC (Voc) course?
☐ Yes ☐ No

18. Do you feel need of professional training as an instructor for VE? ☐ Yes ☐ No

19. How professional training help your teaching performance better? Please tick the following appropriate answer.

Comments	Answer	Answer
Motivate to teach students sincerely	Yes	No
Motivate to use teaching materials and practical teaching	Yes	No
Help me to advise and instruct students for better study	Yes	No
Influence me to use various pedagogy to teach lesson	Yes	No
Others you feel please write		

20. Do you follow the instructions and lesson plan procedure of teachers manual to teach in the classroom of
VE? ☐ Yes ☐ No
21. Do you use any pedagogy and technique to teach the lesson in the classroom? ☐ Yes ☐ No
22. If answer is Yes of question no. 21, please mention what type of pedagogy and technique in the following.

statement	Answer	Answer
Method (teacher centered)		
Lecture Method	Yes	No
Demonstration method	Yes	No
Method (student centered)		
Throwing question method	Yes	No
Discussion method		
General discussion	Yes	No
Group discussion	Yes	No
Problem solving method	Yes	No
Role play method	Yes	No
Debating method	Yes	No
Learner leader method	Yes	No
Project method		
1. Practical work/assignment	Yes	No
2. Single/pair/group assignment	Yes	No
Laboratory based		
1. Practical work	Yes	No
2. Demonstration	Yes	No
Teaching technique		
Throwing question	Yes	No
Observation	Yes	No
Debate	Yes	No
Peer/group learning	Yes	No
Teach with explain story	Yes	No
Brain storming strategy	Yes	No
Demonstration strategy	Yes	No
Any other technique please write		

23. If answer is No of question no. 24, please mention why in the following -

Comments	Answer	Answer
Time limit of class duration	Yes	No
A lot of students in classroom	Yes	No
Lack of proper knowledge about pedagogy	Yes	No
Various obstacles (which is not particular)	Yes	No
Any other cause please write		

24. Do you conduct regular practical class for proper practical learning of students? ☐ Yes ☐ No

25. Do you feel sufficient lab facilities/instruments/study materials are exist for practical learning in your school? ☐ Yes ☐ No

26. Do you take any examination to evaluate the students for proper practical learning about trade work? ☐ Yes ☐ No

27. Do you complete your teaching of trade course in time? ☐ Yes ☐ No

28. Do you take any additional class/care/step for weak students? ☐ Yes ☐ No

Socio-economic condition of Trade instructors of vocational education

1. As a teacher of VE do you think your salary/scale is sufficient or prestigious? ☐ Yes ☐ No

2. Do you think your salary plays any negative impact to teach trade works? ☐ Yes ☐ No

3. If answer is Yes of question no. 2, please write what type of negative impact you feel-

4. Have you any other sources of income? ☐ Yes ☐ No

5. If answer is Yes of question no. 4, please tick the following as income source-

Comments	Answer	Answer
Business	Yes	No
Agriculture	Yes	No
Part time job	Yes	No
Private tuition	Yes	No
Honorium of publication	Yes	No
Others please write		

6. Is your total income sufficient for your family expenditure? ☐ Yes ☐ No

Questions about problems/obstacles of vocational education

1. Do you think that students face any negligence/non co-operation from others for receiving VE?

☐ Yes ☐ No

2. If answer is Yes of Q. no 1, then mention the proper causes of negligence of the followings.

Comments	Answer	Answer
Vocational education is not prestigious enough	Yes	No
It is physical labor oriented	Yes	No
Income prospects are low	Yes	No
Influences of social custom, myth and idioms etc	Yes	No
Neighbors do not take it praise worthy	Yes	No
Absence of proper practical education, people neglect it	Yes	No
Lack of trade related higher education after SSC/HSC (Voc)	Yes	No
Any other cause, please write -		

3. Which are the obstacles of women entrance in VE?

Comments	Answer	Answer
Child marriage	Yes	No
Religious restriction	Yes	No
Social customs and myth	Yes	No
Any other option. Please write-		

4. Do you think what types of obstacles/challenges exist in VE of Bangladesh?

Comments	Answer	Answer
Lack of awareness of people about VE	Yes	No
Lack of initiative/patronization of govt. about expansion of VE	Yes	No
Lack sufficient vocational institutions	Yes	No
Lack of information to the people about VE	Yes	No
Negative attitude about VE	Yes	No
Religious restriction to admit girls in VE	Yes	No
Misunderstanding about sufficient job scope of VE	Yes	No
Lack of trade related higher education after SSC/HSC (Voc)	Yes	No
Please write any other obstacles		

5. Do you think that increasing skill of woman by providing VE may be an instrument of woman empowerment and gender discrepancy? ☐ Yes ☐ No
6. Do you think that the main obstacles of expansion of VE are lack of people awareness and conception? ☐ Yes ☐ No
7. What should be done to increase people awareness about VE?

Comments	Answer	Answer
Carrier counseling may be done among the students by the initiative of BTEB and DTE	Yes	No
It can be done to realize people that VE is an instrument of creating employments and entrepreneurs by the involvement of public representatives in school activities	Yes	No
Teachers can play the vital role	Yes	No
Govt. can instruct the schools to advertise in admissible season by the poster, handbills, brochure, road show, myking etc.	Yes	No
BTEB, DTE, MOE and MOLE may be advertised jointly/singly using by Radio, TV, and Billboard	Yes	No
For creating awareness in school level may be form a committee by participating students, teachers and guardians leading an energetic teacher and should monitoring the activities of that committee by the authority	Yes	No
Please write any other comments		

8. VE is the work based education. After completing SSC examination, one cannot achieve proper skill about his trade/ work by the cause/dint of unskilled teacher/instructor, so others do not intend to admit VE by seeing their unskilled situation. Do you agree with this statement of unwillingness, it is a great problem to admit to the VE? ☐ Yes ☐ No

Or

Less quality of SSC (Voc) education is a great obstacle for expansion of VE. Do you agree with this opinion? ☐ Yes ☐ No

9. For appointing skilled teachers need well salary but salary scale of trade instructor is not well enough.

So in spite of existing sufficient vocational institutions (govt. and non govt.) in Bangladesh do not increase skilled manpower. Do you agree with this opinion? ☐ Yes ☐ No

10. Do you feel any obstacles about teaching the vocational course? ☐ Yes ☐ No

If your answer is yes, then mark your obstacles of the following

Comments	Answer	Answer
Books not fit for trade course	Yes	No
Lack of proper practical skills of trade instructors	Yes	No
Lack of pedagogical knowledge of teaching	Yes	No
Lack of new knowledge of trade course	Yes	No
Lack of students intention about trade learning	Yes	No
Lack of sufficient labs/equipments/study materials	Yes	No
Any other obstacles, please write -		

11. Comments about teaching learning conditions of VE which you feel obstacles for learning of students

Comments	Answer	Answer
Study contents are comparatively hard	Yes	No
Teachers are not familiar about study contents and practical works	Yes	No
Lack sufficient scope of practical exercise of trade course	Yes	No
Lack of skill instructors	Yes	No
Students cannot get any supports and lack of studies environment in their house about trade course learning	Yes	No
Weak primary and lower secondary education	Yes	No
Lack of awareness of guardians about VE	Yes	No
Students cannot learn well for weak merit	Yes	No
Please write any other obstacles you feel		

Questions for importance of vocational education in Bangladesh

1. In Bangladesh, VE is need and important for weak meritorious students because there are many higher general educated graduates are jobless. So, weak meritorious students cannot get /create job by receiving general education. For this reason, weak meritorious students should receive vocational and technical education in Bangladesh? ☐ Yes ☐ No
2. It will create skilled manpower and a lot of self employment by providing vast expansion of VE. Do you feel that job crisis will decrease for this reason? ☐ Yes ☐ No
3. It will decrease child labor and create scope to become poor and street boy as skill manpower by providing vast expansion of VE. Do you agree with this opinion? ☐ Yes ☐ No
4. A large number of labors who gather in job market as unskilled labor in Bangladesh, they will turn skilled labors by taking VE. So, as a skilled labor they will earn more and many more in locally and abroad. Do you agree with this opinion? ☐ Yes ☐ No
5. In Bangladesh many young ladies spent her time by engaging only little house hold works. They can easily involve themselves in income generating activities side by side of household works as a skilled manpower/professional by providing VE. So, should you think that girls receive VE more and more?
☐ Yes ☐ No
6. As a vocational professional should girls involve income generating activities more?
7. If the answer is Yes of question no. 6, why? mention the following-

Comments	Answer	Answer
VE reduces child marriage	Yes	No
Girls can involve income generating activities out of household works by taking VE	Yes	No
Girls can become self dependent by VE	Yes	No
Any other comments		

8. What types of development occurs if girls involve more income generating activities with increasing skill by taking VE?

Comments	Answer	Answer
It can be prosper in the field of women empowerment	Yes	No
It can be increase gender equality	Yes	No
It can be create positive environment for women entrepreneurship	Yes	No
Any others you feel		

9. There are 40% youth in Bangladesh dropped-outs from institutional education and saying as a myth that the most serious problem of Bangladesh is unskilled manpower based job crisis. Do you think that only VE can solve this problem by creating skilled manpower and for this reason country will reach at the top of development? ☐ Yes ☐ No
10. Do you think that VE may be the solution as key of demand oriented and people friendly education system mitigating the crisis of Bangladesh? ☐ Yes ☐ No
11. There are 500,000 (five lakhs) Bangladeshi migrated abroad per year for job seeking. The major part of them are unskilled and semi skilled. Country could earn many more remittances if the manpower can send abroad as a skilled manpower by providing VE/Training. Do you agree with this opinion? ☐ Yes ☐ No
12. There are 78% manpower of Bangladesh are worked in non-institutional sector. Among them 48% are engaged in agriculture sector. People think that introducing large scale agro based VE (horticulture, fisheries, livestock, poultry etc) may be very fruitful for developing our country. Do you agree with this opinion? ☐ Yes ☐ No
13. For establishing dignity of vocational profession, related authentic vocational degree/training will be compulsory by laws for entering the vocational profession. Otherwise Government/local authority will not permit/give registration any one to enter/work in vocational profession. Do you think that by providing this law, both the dignity and income of vocational professional will be increased? ☐ Yes ☐ No

Questions for expansions of vocational education

1. Which are the following causes do you think of less expansion of VE in our country?

Comments	Answer	Answer
Lack of proper conception of people about VE	Yes	No
Lack of enough advertisement about VE		
Vocational profession is physical labor oriented	Yes	No
Many trade works is known in society as lower level job/work	Yes	No
Scope of income is low in vocational profession	Yes	No
Scope of job/work is limited	Yes	No
It is misconception that there is no scope for foreign job	Yes	No
Misconception that it is expensive education	Yes	No
It is known in society that it is not enough prestigious	Yes	No
Lack of modern facilities in VE	Yes	No
Lack of scope to enter higher education in related trades		
Any other cause you feel please write-		

2. Should you feel expansion of VE in our country? ☐ Yes ☐ No

3. Why should you feel the expansion of VE? Please tick the right answers of the following:

Comments	Answer	Answer
VE creates skilled manpower	Yes	No
Lack of skilled manpower in Bangladesh	Yes	No
Huge general higher educated people are jobless	Yes	No
VE reduce child labor and create poor and street boy as skilled manpower	Yes	No
Many scope of self employment and reduce unemployment	Yes	No
It is a tool of creating entrepreneur	Yes	No
Increasing income level as skilled labor force		
Increase large foreign remittance by exporting skilled manpower	Yes	No
It is possible to involve women in income generating activities	Yes	No
Any other cause you feel please write		

4. What step need should you think to expand VE in Bangladesh?

Comments	Answer	Answer
To build up awareness of people about the facilities of VE	Yes	No
To take various step to reduce negative attitude about VE	Yes	No
To create necessary and sufficient scope to admit in VE	Yes	No
To take initiatives for expansion of VE by the Govt. and NGO	Yes	No
To create scope of employment after completing VE	Yes	No
To advertise strongly that VE is a tool of creating entrepreneurship	Yes	No
To create scope of higher education in related trades	Yes	No
To advertise that enough scope of women empowerment in VE	Yes	No
For establishing VE institutions in rural areas separately and jointly with general school as a separate unit	Yes	No
Any other options please write		

5. Do you think whose contribution is more necessary for expansion of VE?

Options	Answer	Answer
Govt.	Yes	No
Parents/guardians	Yes	No
Peoples of the country/local entrepreneur	Yes	No
NGOs	Yes	No
Teachers	Yes	No
Others please write		

6. Please write if you think any other comments about VE -

Signature

Phone no.

APPENDIX – C

Questionnaire for PhD Research

Special Questionnaire for Trade instructors

Research Title: Problems and Prospects of Vocational Education: An Empirical Study in Rajshahi Division, Bangladesh.

Instructions for Respondent: Respected respondent, your information is only for research purpose and your identity must be concealed. Your cooperation will enrich the study. Thank you all.

Questions related to teaching learning

1. Do you feel need of professional training as an instructor for VE? ☐ Yes ☐ No
2. How professional training help your teaching performance better? Please tick the following appropriate answer.

Comments	Answer	Answer
Motivate to teach students sincerely	Yes	No
Motivate to use teaching materials and practical teaching	Yes	No
Help me to advise and instruct students for better study	Yes	No
Influence me to use various pedagogy to teach lesson	Yes	No
Others you feel please write		

3. Do you follow the instructions and lesson plan procedure of teachers manual to teach in the classroom of VE? ☐ Yes ☐ No
4. Do you use any pedagogy and technique to teach the lesson in the classroom? ☐ Yes ☐ No

5. If answer is Yes of question no. 4, please mention what type of pedagogy and technique in the following.

statement	Answer	Answer
Method (teacher centered)		
Lecture Method	Yes	No
Demonstration method	Yes	No
Method (student centered)		
Throwing question method	Yes	No
Discussion method		
General discussion	Yes	No
Group discussion	Yes	No
Problem solving method	Yes	No
Role play method	Yes	No
Debating method	Yes	No
Learner leader method	Yes	No
Project method		
3. Practical work/assignment	Yes	No
4. Single/pair/group assignment	Yes	No
Laboratory based		
3. Practical work	Yes	No
4. Demonstration	Yes	No
Teaching technique		
Throwing question	Yes	No
Observation	Yes	No
Debate	Yes	No
Peer/group learning	Yes	No
Teach with explain story	Yes	No
Brain storming strategy	Yes	No
Demonstration strategy	Yes	No
Any other technique please write		

6. If answer is No of question no. 24, please mention why in the following -

Comments	Answer	Answer
Time limit of class duration	Yes	No
A lot of students in classroom	Yes	No
Lack of proper knowledge about pedagogy	Yes	No
Various obstacles (which is not particular)	Yes	No
Any other cause please write		

7. Do you conduct regular practical class for proper practical learning of students? ☐ Yes ☐ No
8. Do you feel sufficient lab facilities/instruments/study materials are exist for practical learning in your school? ☐ Yes ☐ No
9. Do you take any examination to evaluate the students for proper practical learning about trade work? ☐ Yes ☐ No
10. Do you complete your teaching of trade course in time? ☐ Yes ☐ No
11. Do you take any additional class/care/step for weak students? ☐ Yes ☐ No

Socio-economic condition of Trade instructors of vocational education

1. As a teacher of VE, do you think your salary/scale is sufficient or prestigious? ☐ Yes ☐ No
2. Do you think your salary plays any negative impact to teach trade works? ☐ Yes ☐ No
3. If answer is Yes of question no. 2, please write what type of negative impact you feel-
4. Have you any other sources of income? ☐ Yes ☐ No
5. If answer is Yes of question no. 4, please tick the following as income source-

Comments	Answer	Answer
Business	Yes	No
Agriculture	Yes	No
Part time job	Yes	No
Private tuition	Yes	No
Honorium of publication	Yes	No
Others please write		

6. Is your total income sufficient for your family expenditure? ☐ Yes ☐ No

Signature

Phone no.

APPENDIX – D

Questionnaire for PhD Research

Special Questionnaire for Head teachers/Principals

Research Title: Problems and Prospects of Vocational Education: An Empirical Study in Rajshahi Division, Bangladesh.

Instructions for Respondent: Respected respondent, your information is only for research purpose and your identity must be concealed. Your cooperation will enrich the study. Thank you all.

Questions about management of vocational education

1. Have any annual plan for VE (SSC Voc) in your school? ☐ Yes ☐ No

If your answer is Yes, please tick the following type of plan.

- ☐ Fill the student admission target
- ☐ Conduct class regularly and achieve 100% pass rate
- ☐ Conduct practical class regularly
- ☐ Monitoring student learning properly
- ☐ Others, please write -

2. Do you monitor/inspect teaching activities regularly? ☐ Yes ☐ No

3. Do you think need to have professional training of trade teacher/instructor of VE? ☐ Yes ☐ No

4. How many teachers/instructors are trained in your schools?

- ☐ All teachers ☐ No one ☐ ... % are trained

5. Do you feel how professional training helps the teacher to teach students?

Comments	Answer	Answer
Motivate teacher to teach students	Yes	No
To encourage teacher using learning materials and practical works to teach	Yes	No
To help teacher to give advice and instructions	Yes	No
To encourage teacher to use various teaching methods	Yes	No
Any other please write		

6. Does your school conduct regularly practical class for practically trade learning? ☐ Yes ☐ No

7. Does your school have sufficient class rooms/labs/instruments/materials for conducting practical class? ☐
Yes ☐ No
8. Do you take any examination to justify the proper trade learning and practical skill of students in your school? ☐ Yes ☐ No
9. Do you have any multimedia class room in your school? ☐ Yes ☐ No
10. Do you arrange guardians meeting every year in your school? ☐ Yes ☐ No
11. Do you monitor the ending of trade course teaching in time in your school? ☐ Yes ☐ No
12. Do you arrange to take any extra class/care/step for weak students in your school? ☐ Yes ☐ No

Signature

Phone no.

APPENDIX – E

Questionnaire for PhD Research

Special Questionnaire for Guardians and Social Leaders

Research Title: Problems and Prospects of Vocational Education: An Empirical Study in Rajshahi Division, Bangladesh.

Instructions for Respondent: Respected respondent, your information is only for research purpose and your identity must be concealed. Your cooperation will enrich the study. Thank you all.

Questions about intention of Vocational Education

Please tick the right answer

1. Do you know that the vocational schools and colleges exist in our country with the general education stream in order to teach vocational education? ☐ Yes ☐ No
2. Do you also know that vocational courses are running in general schools out of vocational schools and colleges? ☐ Yes ☐ No
3. Are any children of you admitted in vocational course? ☐ Yes ☐ No
4. If answer is yes of question no. 3, why are you admitted your children in VE? Please write -
5. In future, do you want to admit your brilliant child in VE? ☐ Yes ☐ No
6. In future, if you do not want to admit your brilliant child in VE, then why? –
7. In future, if you want to admit your brilliant child in VE, then why? -

Signature

Phone no.

APPENDIX – F

Interview Schedule for PhD Research

Research Title: Problems and Prospects of Vocational Education: An Empirical Study in Rajshahi Division, Bangladesh.

Instructions for Respondent: Respected respondent, your information is only for research purpose and your identity must be concealed. Your cooperation will enrich the study. Thank you all.

First Part: Personal Information

1. Name :
2. Profession and Designation:
3. Gender : ☐ Male ☐ Female
4. Age : year
5. Educational qualification: Studying (class IX/X)/Certificate degree (SSC/HSC/Diploma)/Bachelor degree(general/engineering/others)/Masters degree and others (if any)
6. Experiences and other qualification (if applicable):

Second Part: Vocational Education related Data

Do you think the following causes as the problems of vocational education?

Sl No	Causes	Answer	
1	Social dignity of vocational profession is low	Yes	No
Please give reason in favour of your answer			
2	People treated vocational profession as low graded for its physical labor oriented nature	Yes	No
Please give reason -			
3	Lack of social awareness about vocational education	Yes	No
Please give reason -			
4	Lack of quality vocational education	Yes	No
Please give reason -			
5	Expense of vocational education is more than general education	Yes	No
Please give reason -			
6	Insufficient vocational institutions facilities in nearest areas	Yes	No
Please give reason -			
7	Scope of higher education is limited in related vocational trades	Yes	No

Please give reason -			
8	Shortage of skilled teachers and instructors in vocational education	Yes	No
Please give reason -			
9	Shortage of classrooms in vocational institutions	Yes	No
Please give reason -			
10	Lack of labs and instruments in related trades	Yes	No
Please give reason -			
11	Lack of practical learning in institutional level	Yes	No
Please give reason -			
12	Lack of sincerity and integrity of teachers to teach lesson	Yes	No
Please give reason -			
13	Lack of sincerity of students to learn trade lesson	Yes	No
Please give reason -			
14	Lack of guardian's awareness and help to the students to learn trade lesson	Yes	No
Please give reason -			
15	Lack of monitoring of head of the institutions	Yes	No
Please give reason -			
16	Insufficient and weak study content	Yes	No
Please give reason -			
17	Trades are not sufficient and time befitted	Yes	No
Please give reason -			
18	After completion of vocational course, graduates cannot enter job market as enough skilled labor force, because of, weak student admit in vocational education and they cannot learn well	Yes	No
Please give reason -			
19	Lack of teachers' professional and trade related knowledge and training	Yes	No
Please give reason -			
20	Lack of teachers' sufficient salary structure	Yes	No
Please give reason -			
21	Limited scope of high income prospects in vocational profession	Yes	No
Please give reason -			
22	Neighbors treat vocational students in negligible eyes	Yes	No
Please give reason -			
23	Social customs and idioms are obstacles for low enrolment in vocational education	Yes	No
Please give reason -			
24	Students suffer lack of trade related practical exercise enough	Yes	No

Please give reason -			
25	Lack of trade related practical expertise of teachers	Yes	No
Please give reason -			
26	Limited scope of trade related practical works in household areas	Yes	No
Please give reason -			
27	Basic knowledge/earlier education (primary and junior secondary) of vocational students are very poor	Yes	No
Please give reason -			
28	In vocational education, students will have to fix profession in early stage and scope of entering multifarious professions may be become limited. For this reason, students do not want to admit in vocational education	Yes	No
Please give reason -			
29	Religious restrictions, traditional social values and child marriage are the obstacles of female entrance in vocational education	Yes	No
Please give reason -			
30	Any other causes you think accept the above, please mention-		

Do you think the following issues as the prospects of vocational education?

1	Vocational education is suitable for weak meritorious and drop-out students	Yes	No
Please give reason -			
2	Vocational education creates scope of self-employment	Yes	No
Please give reason -			
3	Vocational education is an alternative way of employability of general educated jobless people	Yes	No
Please give reason -			
4	Vocational education creates scope of entrepreneurship	Yes	No
Please give reason -			
5	Vocational education reduces child labor	Yes	No
Please give reason -			
6	Increase income level for achieving skill by receiving vocational education	Yes	No
Please give reason -			
7	Creating job scope and more income in abroad by receiving vocational education	Yes	No
Please give reason -			
8	It is suitable education system for Bangladesh, as a populous country for creating skilled manpower	Yes	No
Please give reason in favour of your answer			
9	For increasing dignity of vocational profession, vocational educated graduates must be entered in vocational profession more and more	Yes	No

Please give reason -			
10	Vocational education is demand oriented and people friendly education system, because of it reduces unemployment crisis	Yes	No
Please give reason -			
11	Vocational education creates poor and street boys as skilled manpower	Yes	No
Please give reason -			
12	Vocational education reduces child marriage	Yes	No
Please give reason -			
13	Vocational education involved women in income generating activities	Yes	No
Please give reason -			
14	Vocational education is a tool of women empowerment	Yes	No
Please give reason -			
15	Vocational education creates various scope of new employment in industries sectors	Yes	No
Please give reason -			
16	Vocational education increases social dignity of labor oriented profession	Yes	No
Please give reason -			
17	It is a dire need to establish a vocational university in Bangladesh to create scope of trade related higher education	Yes	No
Please give reason -			
18	Please mention any other comments, if you think about this issue		

Signature
Phone no.

APPENDIX – G

Selected Schools/Institutions and Respondents

Table 2.1: List of the selected Schools and respondents in three districts

District	Name of Schools	Number of the respondents			
		Students	TIs	HT/Ps	G&SL
Rajshahi	1. Khorkhori High School	16	6	1	62
	2. Naohata Model High School	11	4	1	
	3. Motropolitan Technical And BM College	03	6		
	4. Mirzapur High School & College	07		1	
	5. Agrani School & College	06	1	1	
	6. Rajshahi Women TTC	66	4	1	
	7. UCEP Rajshahi Technical School	54	4	1	
	8. Loknath High School	16	4	1	
	9. TTC, Rajshahi	70	6	1	
	Sub total	249	35	8	62
Bogra	10. Ranirhat School And Vocational College	08	1	1	49
	11. Asekpur C.P. Bohumukhi High School	08	4	1	
	12. Nishindara Fakiruddin School & College	10	4		
	13. Fapore Union Pallimongal High School	07	1	1	
	14. Bogra Islamic Mission Girls High School	07	3	1	
	15. Koichore Girls High School	06	1	1	
	16. Hazradighi School & College	05	1	1	
	17. Sherpur Univershal Technical & BM College	16	4		
	18. Dhunat Pilot Girls High School And College	16	1	1	
	19. TTC, Bogra	50		1	
	20. Textile Vocational Institute, Bogra	07	4		
	Sub total	140	24	8	49
Natore	21. Singra Damdama Pilot High School & College	26	5	1	31
	22. Anowara Pilot Girls High School	13	5	1	
	23. Institute Of Science And Technology, Natore	22	4	1	
	24. Natore Technical School And College	50	7	1	
	Sub total	111	21	4	31
Grand total		500	80	20	142

Note: TI: Trade instructor, HT/P: Head teacher/Principal, G&SL: Guardians & Social leader