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Entrepreneurial Skills of TVET Students in South Asian Countries: Recommendations for Improvement in Pakistan

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Abstract: The educational role has long been recognized in expediting the socio-economic growth of any country by improving the critical thinking and cognitive skills of students enabling them to capture self-defectiveness and employability. Education not only enhances the efficiency level of an individual by enabling him to play conducive and productive participation in the social fabric. Education incorporated with skills is considered to be an effective tool to pace the social development and economic progression of any country especially developing i.e. South Asian countries as nations having knowledge-based economies are rapidly translating their abilities into national and individualist development. The following study is an effort to identify the level of entrepreneurial skills among the students of Technical-Vocational Education and Training (TVET) Institutes in South Asian countries with a major focus on Punjab (Pakistan). To achieve this aim of the study enrolled students (both male and female) from Technical Education and Vocational Training institutes were selected as the population of the study. In the second stage, 300 students were randomly selected from different departments of these colleges to obtain data.
Data were analyzed by descriptive& infernal statistics to identify the level of skills and perceptions of students, showing that students have a low level of entrepreneurial skills, but also the perceived value they give to education for the development of these skills is very low. Similarly independent sample t-test was used to explore causes of low inclination towards entrepreneurial tendencies.
This paper highlights the significance of TVET Institutions in promoting employability and entrepreneurial skill among students of TVET Institutes of Pakistan in particular and mainly in Punjab.
Keywords: TEVTA, Entrepreneurship, TVET, Obstacles, Solutions

1. Introduction:

Entrepreneurship is considered an imperative catalyst for economic development in any country. One of the best ways to promote entrepreneurship is through the development of entrepreneurial skills through education, termed entrepreneurship education. The role of entrepreneurship education is pertinent in enhancing the intention of students to become entrepreneurs or self-employed through the development of their pre-requisite skills to become a businessperson. The acquisition of these abilities is inclined by numerous aspects including social, cultural; family support, and the perceived value students give to education for the development of these skills. An insightful evaluation of the developed countries reveals that their phenomenal economic growth was driven by entrepreneurship, which is rightly regarded as a key to economic prosperity.

Entrepreneurship is crucial for economic development, and education is a key factor in promoting it. Entrepreneurship education develops skills needed for starting a business and enhances students' intention to become entrepreneurs. Successful countries like the USA, Japan, Denmark, Germany, and Taiwan serve as role models for others in aspiring to achieve economic prosperity through entrepreneurship. South Asian countries are also making efforts to promote self-employability among students. However, an analysis of TVET institutes in Pakistan shows that students have a low inclination towards entrepreneurial skills, indicating a need for modifications in the courses and teaching methods. Faculty training in pedagogical practices for entrepreneurship education is necessary. Even South Asian countries are

making efforts to promote Technical, Vocational Education and Training and promote a skill/efficiency-based knowledge economy which has promoted the concept of self-employability among students.
In addition to this content was analyzed to identify the availability of entrepreneurial skills in the content of the courses taught at TVET[1] institutes called Government College of Technology both male and female. The results indicate that students have a low inclination towards entrepreneurial skills. The apparent value they give to technical education for the development of these skills is also low. They believe that there is a need to bring changes in the content of the courses being taught at TVET institutes as well as teaching instruction for the development of entrepreneurial skills. And contemporary demand-driven elements/contents/skills should be incorporated into the curriculum especially skills that can ensue employment ability. Based on the results it can easily be suggested that the existing courses taught at TVET institutes called Government College of Technology need modifications for the development of entrepreneurial skills, at the same time teaching methods and institutional techniques of classroom practices also need to be redefined. Faculty training related to particular reference to pedagogical practices for Entrepreneurship educationist need of the hour.

1.1 Why do we need entrepreneurship skills?

It is pertinent to promote entrepreneurship so that individuals with innovative ideas and skills have access to vibrant entrepreneurial resources like money, talent, and know-how to initiate new ventures. One of the major intentions of the education institutes is to ensure the promotion of entrepreneurial skills among students that could further polish their innate talents.

2. Objectives of the Study

The main objectives of the study are to:
1. Analyze TVET institutes' Curriculum to find out content related to entrepreneurial skills development.
2. Gauge the level of entrepreneurial skills among TVET students.
3. Measure the relationship between the perceived value students give to the teaching-learning process and the level of entrepreneurial abilities.
4. Explore Classroom practices to promote entrepreneurial skills.
5. Assess the level of self-efficacy among TVET students for becoming an entrepreneur.
6. Explore the motivational reasons for TVET students to adopt entrepreneurship?

3. Research Questions

Following research questions are developed to address the prepared objectives;
1. Are entrepreneurial skills present in the curriculum textbooks of TVET institutes?
2. What level of perceived value is given by students to content for the development of entrepreneurial abilities?
3. What are the intentions of TVET students (Colleges of Technology) towards entrepreneurship?
4. What is the self-efficacy level of TVET students (Colleges of Technology) to become an entrepreneur?
5. What are the motivational reasons that inspire the TVET Students (Colleges of Technology) to become an entrepreneur?
6. What skills are inculcated among TVET students besides the curriculum to promote independence and self-direction?

4. Significance of the Study

This research study will examine Technical-Vocational Education and Training (TVET) institute students 'inclination toward entrepreneurship and chalk out the causes of the low rate of students 'inclinations toward entrepreneurship. It may provide useful practical information to technical educational policymakers in assembling more cognizant conclusions on entrepreneurship programs for increasing participation of technical education students in business in the future that could enhance chances of employability among TVET pass-outs. The TVET stakeholders of Punjab province such as P-TEVTA, NAVTTC, Skill Development Council, PVTC, NGO, and industry will also assert a better understanding of the factors that may stimulate students 'inclination towards beginning entrepreneurial ventures. The conclusions of this research are anticipated to have policy repercussions for the future initiation and development of entrepreneurship programs for young people, especially students in technical and vocational institutes especially Colleges of Technology across Punjab. This will provide evidence to policymakers about the urge to keep in view the teaching-learning process along with other factors while planning the promotion of entrepreneurship in the country. The curriculum analysis will help to identify the presence or in-availability of relevant

[1]"TECHNICAL-VOCATIONAL EDUCATION AND TRAINING (TVET) is the education or training process where it involves, in addition to general education, the study of technologies and related sciences and acquisition of practical skills relating to occupations in various sectors of economic life and social life, comprises formal (organized programs as part of the school system) and non-formal (organized classes outside the school system) approaches." (UNESCO) http://www.tesda.gov.ph/About/TESDA/28

entrepreneurial skills in textbooks of the courses taught in TVET institutes. The results of this part of the study will be helpful for curriculum developers who can modify the content of courses according to the required standard for the development of entrepreneurial skills that will ensure self-reliance and employment. The aspect of employability and self-reliance is the main intention and objective of TVET institutions. It is included in the core objectives of technical education to promote a culture of self-sufficiency rather than job seekers.

The purpose of this research study is to investigate and explore the entrepreneurial self-efficacy level and inclinations of TVET students toward entrepreneurship. Further, this study assessed the skills level of TVET students and their motivation for opting for entrepreneurship & the study was helpful to various stakeholders such as government, TVET Policy makers and administrators, students, donor agencies, curriculum developers, and national policymakers to get the awareness of entrepreneurial effectiveness and intentions of TVET students' towards entrepreneurship. For this research study, the following review of related literature was conducted.

5. LITERATURE REVIEW

5.1 Entrepreneurship skills are provided to students in vocational institutes in South Asian countries

This part of the report deals with the work that has been carried out previously on TVET education in South Asian countries and entrepreneurial tendencies among TVET students. In the first section of the chapter, the different education patterns of South Asian countries are discussed. In next section highlights the entrepreneurial inclination among TVET students.

The founder's message was quite spirited when he mentioned at the All Pakistan Education Conference on 27th November 1947 that " There is an immediate and urgent need for training our people in scientific and technical education to build up our future economic life". His commendations later played an imperative role in articulating the educational policies of newborn countries and nations. The leaders after Quaid-e-Azam paid more heed to the recommendations of the founders and emphasized more focus on science and technology in National Commission on Education in 1959. The educational policy observed a transfer from the general stream of education towards technical-oriented instruction per recommendations. Resultantly as per educational policy commendations numerous technical education and professional training institutes were established, which later merged to form a regulative authority namely Technical Education and Vocational Training Authority, (TEVTA) in 1999.

5.2 Education Pattern in India

Indian education system comprises primary, secondary, senior secondary, and higher education. Elementary education consists of eight years of education and each secondary and senior secondary education comprises two years of academic education. Whereas, higher education in India starts after the 12^{th} standard or higher secondary education, and graduation takes three to five years depending on the degree program. The length of post-graduation is of two or three years of academic education.

5.3 TVET Education in India

Technical and Vocational Education is playing role in empowering youth and producing skilled manpower to increase industrial productivity and economic growth of the country. As per the prevalent scenario, the term Technical Education (TE) refers to Post-secondary academic courses and skill-based training designed to prepare Technicians or supervisory staff and the term Vocational Training (VT) refers to lower-level certification education and training aimed at the skilled or semi-skilled workforce. The Vocational Training certification is not connected with formal education. As far as the organizational structure is concerned TVET education is not centralized. Various organizational bodies work for the formulation and implementation of Technical Vocational Education and Training. The organizational bodies include the National Skills Development Council; Ministry of Human Resource Development (Department of School Education & Literacy works under the Ministry of School Education & Literacy to run Technical Vocational Education & Training Programs at the Senior Secondary Level); Ministry of Human Resource Development also looks after the matters related to Higher Technical Education. The Ministry of Labor & Employment in collaboration with the Directorate General of Employment & Training deals with vocational training for skilled or semi-skilled workforce certification programs. Both public and private sectors i.e. NGOs in collaboration with Indian government ministries and departments, both at the provincial and central levels, are working to produce an effective, efficient workforce to meet both local and global needs. TVET sector in India is consciously making plans and efforts to produce knowledgeable, skilled technocrats for industrialization in an emerging economic power. The TVET sector of India offers academic courses and programs in Information Technology, housing, and town planning; engineering; applied arts & crafts; hotel management & catering technology; pharmacy, etc.

5.4 Education Pattern in Bangladesh

The education pattern in Bangladesh comprises three stages namely Primary, Secondary, and Tertiary Education. The Primary level institutes are responsible to impart education at the junior level, while secondary and higher secondary level institutes are responsible for instructing the secondary level of education. The Ministry of Primary and Mass Education (MOPME) administrates the primary education department in the country. The Post-primary stream of education is further divided into two streams in terms of the scheme of studies and curriculum: General Education and religious schools (Madrasah) education. The Technical Vocational Education & Training starts after the completion of the 8th Standard. Even students who are unable to grasp general education can easily switch to the TVET education stream but qualifying for 8th standard is the pre-requisite compulsion for entering TVET education. The compulsion is enforced to discourage child labor or workforce without training below the legal working age of 15 years. The degree programs of Graduation and Master's or other higher level qualification are offered at the Tertiary Education Institutions and these institutes are administrated-supervised by the Ministry of Education (MOE).

5.5 Structure of TVET Education in Bangladesh

The Directorate of Technical Education in collaboration with the Ministry of Education is responsible for imparting Technical Vocational Education and Training (TVET) in four different categories of institutes as per the current Vocational Qualification Framework for Bangladesh: Technical Schools and College (TSC), Polytechnic and Mono-technic Institutes, Technical Teacher Training Center (TTTC), and Vocational Teacher Training Institute (VTTI). Besides various Skills Training certificates are delivered at Technical Training Centres (TTCs) and these institutes are supervised by the Ministry of Labor and Employment.

5.6 Education System in Nepal

The education system of Nepal is inspired and modeled by the Indian education system of three-tier (sixteen-year education system) by apportioning ten years to school education, four years college level (both intermediate & graduation/bachelor 2 years) and two years at university level in masters. But it was later customized and categorized into four levels: Primary level, Middle Schools or Lower Secondary Level (SLC); High School or Secondary Level; Higher Secondary level a total of twelve years of formal education cycle. The central government is responsible for monitoring all educational institutions.

Nepal has chosen two distinct streams in education. It is called General Education at the school level and post-secondary level. At the secondary level technical and vocational education starts. General education covers the early childhood development program till the 10th standard which has been converted to the 12th standard in recent reforms called (SSRP).

5.7 TVET Education in Nepal

The concept of TVET education was introduced in Nepal in the 1950s in lower secondary classes and it was termed “Pre-vocational Education”. Whereas, at the secondary level the curriculum has consisted of almost 25% of vocational training and at this level, the incumbent must be above 15 years of age. The courses offered at this level are of three years duration followed by one year of job training (OJT). Since the 1990s technical and vocational education is monitored and organized by Council for Technical Education and Vocational Training (CTEVT). It is the responsibility of CTEVT to formulate TVET policy, and its implementation from stakeholders; coordinate with related sectors and ensure the quality of offered programs. It offers long-term technical and vocational education (TVE) and short-term vocational training courses. Besides the council (CTEVT) the Ministry of Education in collaboration with other related ministries like Women & Social Welfare; Labor; Industries; Communication & Water Resources; Tourism and NGOs are striving to empower Nepalese youth in vocational training in related areas.

5.8 Education Pattern in Pakistan

The education system of Pakistan comprises six levels starting from pre-school (age range 3 to 5 years), Primary School (Levels 1 to 5), Middle School (Levels 6 to 8), High School (Levels 9 & 10 leading to secondary school certificate called SSC), Intermediate level (Grade 11 & 12 which leads to Secondary School Certificate called SSC) then University level leading to graduate, post-graduate degrees.

5.9 Technical Education and Vocational Training in Pakistan

Technical Education and Vocational Training Authority (TEVTA) is designed to equip and empower individuals in specific skills, abilities, industrial trades, agriculture farming, and business for self-sufficiency and it is generally linked with practical skills which are not commonly included in academic abilities. Vocational Training mostly includes education and workplace training by focusing more on manual work and formulating the personalities to perform for

their jobs that are mainly related to working in a particular industry or production line. Technical Education is equivalent to occupational and professional (vocational) training, but the main consideration is focused on technological orientation and expansions made in computers and digital information culture. These skills help to sharpen the knowledge of an individual and information to inculcate and make progress toward employment on an industrial basis. It is felt that education should have its preparatory value to enable individuals to earn their livelihood or to become productive and more conducive agents of the social citizenry Asghar, Shah & Akhtar (2016). It is the economic self-sufficiency of a person which makes him a worthy and contributing citizen. Therefore the supporters of vocational education say that all the knowledge that the child has gained, and all the culture the child has acquired in the educational institution will be of no use, if he cannot make both ends meet as an adult member of the community. Therefore, education should aim at imparting knowledge, skill, and information to the pupils to make them self-reliant and self-directed; not to drag or parasite upon others. As such, vocational bias in education is necessary for enabling pupils to be productive members of society. Education with the professional aim is preparing each individual for an occupational intention which ultimately opts best to his abilities, needs, inclination, aptitude, interests, and attitudes.

The aim of establishing technical and vocational education and training institutes was to produce a skillfully trained workforce. These institutes have been working for two decades to achieve this target, however, it was difficult to provide jobs to each trained student passing out of these institutes. Despite efforts and industry-demand-driven technical courses offering the ratio of unemployment and social uselessness in youth is still high as compared to the percentage in other Asiatic countries.

The social aspect cannot be denied that it becomes a mindset in our society that the youth both male and female try to prefer a white-collar job that has minimum risk level. This situation leads to the need to identify an alternative to the job that can help to deal with the arising issue of unemployment among students of technical education and vocational training institutes. The solution to deal with unemployment is establishing small and medium-scope businesses by students/graduates of TVET institutes to shoulder their responsibility in the progress of the country. Even this global solution was accepted by the government of Pakistan which mentioned promoting entrepreneurship in the recommendation of the National Skill Policy. Responding to these policy directions. Punjab Skill Development Plan (2013) transformed the objectives of institutes working under TVET including the promotion of entrepreneurship as an integral part. Now TEVTA is putting immense effort to highlight the technical education for the general masses provided to the view that it would bridge the gap between social scenarios and factual prominence of technical education in providing employment.

There was another factor that the existing students of TVET institutions are reluctant to adopt entrepreneurship for employability Asghar & Siddi (2008). Financial incentives were offered to attract students to choose entrepreneurship as a career choice for achieving the target of promotion of entrepreneurship as recommended in the policy. This financial help was provided through multiple projects launched by the government in collaboration with different funding agencies. One example of this effort can be seen through the collaboration of the Rural Support Program (2012) with TVET institutes, where students were provided with soft loans after the completion of their diploma as an incentive to establish their business ventures. Financial incentives like interest-free loans by Akuwat Foundation were offered to attract students to select entrepreneurship as a career choice to achieve the target of promotion and financial independence. Even other funding agencies provided collaboration to TVET students in the form of soft loans after completion of their diploma as an incentive to start their business ventures.

Entrepreneurship is an act or the performance of being a businessperson, which can be termed as ―an entrepreneur is an individual who accepts financial risks and undertakes new financial ventures‖. Entrepreneurs are characteristically independent-minded individuals who believe strongly in their capabilities and enthusiastically opt to take risks. An entrepreneur is someone who analyzes and then initiates to take those risks and can manage the plausible uncertainties, held accountable for both best and worst outcomes. Henceforth as risk takers, businesspersons play an imperative role in economic development by ensuring that identification of risks, and opportunities are taken up, and this may consequently grow and improve the effectiveness of economic progress. The purpose of entrepreneurship is stressed as conveying together and co-coordinating purpose with resources. Casson maintained the viewpoint that the skill of a businessperson or entrepreneurial individual is to make judgmental conclusions about the best distribution and usage of resources to coordinate infrequent and lacking resources (Khong, 2002). Schumpeter pointed out that a businessperson or entrepreneurs like an innovator, which is, those who wish to transform things or organize things contrarily. In accordance to Schumpeter, a business intended person or an entrepreneur is one who implements ―new combinations of means of production‖. This description represents entrepreneurs of Pakistani, as whosoever comes up with a new innovative idea is the only winner. All methodologies and approaches to economic development and growth in Punjab are reliant on the evolution and development of entrepreneurship. Despite all these efforts entrepreneurial activity in Pakistan is still low (Chemin, 2008). Contrariwise, per the conducted survey by United Nations Educational, Scientific and Cultural Organization, (UNESCO) in 2009 on Pakistani youth, the propensity towards creating own-venture is 88 percent. The reasons that can influence one for not choosing entrepreneurship or self-employment as a career choice despite high intentions could be a lack of funding and lack of training (Chigunta, 2002). To deal with the first obstacle, i.e., the financial aspect, soft loans were offered, while for purpose of training, business courses were included in the curriculum of technical education institutes. Still, the results are not very satisfactory as indicated by the report of the survey

conducted by the World Bank (2011) stating that almost 61% of Technical-Vocational Education and Training (TVET) graduates are unemployed; providing the fact that neither they are entering into job market nor they are initialing their business ventures. This led to the need to identify gaps present in the training process of TVET institutes.

In general, the lack of training in skills required to start a business (that can be termed as entrepreneurial skills) is an accepted phenomenon that has greatly influenced the choice of students to adopt entrepreneurship as an occupational optimal or career1. In the local context this assumption is supported by a few research studies, for example, the report of the Young Entrepreneurship Conference (2012) based on the paper of students reflects a lack of training on entrepreneurial skills as the most important factor for adopting entrepreneurship as a career choice, based on papers presented by students. Similar results have been reported in research conducted by Sumra, et.al, (2011). Although, no specific study is available on the entrepreneurial skills of TVET students, however, the situational analysis about the skill level of students of TVET institutes given under the report of National Youth Policy (2008) reported that the students enrolled in TVET institutes lack entrepreneurial skills which are pre-requisite to initiate and develop a business venture. The results of the aforementioned reports show a lack of entrepreneurial skills leading to the belief that there might be a gap between learning that proves as an obstacle in the promotion of entrepreneurship. The learning process of TVET institutes will be evaluated as the individuals require certain skills that help in establishing and running a business at the very initial stages, these skills can be taught through the teaching-learning process as classroom practices, and every individual can attain a certain level of skills (Lichtenstein& Lyons, 2001). It is an assumption that if students give high value to the teaching-learning process they will possess a high level of entrepreneurial skills. This assumption provides the link between the above-mentioned dimensions of evaluation of the teaching-learning process of TVET institutes, presenting gaps in the teaching-learning process of TVET institutes thus achieving the ultimate aim of the study. It will also provide insight into the causes of the low inclination of students toward entrepreneurial skills.

TEVTA, the Technical Education and Vocational Training Authority, aims to equip individuals with specific skills, abilities, and trades in various fields, including agriculture, business, and industry. Technical education focuses on technological advancements and computer-based skills, while vocational training emphasizes manual labor and workplace experience. The goal is to prepare individuals to become self-sufficient and productive members of society. However, despite efforts to provide job opportunities for trained students, unemployment rates among technical and vocational graduates remain high in Pakistan, largely due to a societal preference for white-collar jobs. To address this issue, the government has encouraged entrepreneurship as an alternative to traditional employment. Financial incentives and soft loans have been provided to TVET graduates to help them establish small and medium-sized businesses. Entrepreneurship is viewed as a means of economic development, as it enables individuals to take risks and make informed decisions about resource allocation

Financial incentives such as soft loans are being provided to students to encourage them to choose entrepreneurship as a career choice. Collaboration between different funding agencies and TVET institutes has made this possible. Entrepreneurship plays an imperative role in economic development as it identifies risks and opportunities, and innovates to improve effectiveness and progress. The development of entrepreneurship is crucial to economic growth in Punjab, and the propensity towards creating one's venture is high in Pakistan, according to a survey by UNESCO. However, despite the high propensity towards creating one's venture among Pakistani youth, entrepreneurial activity remains low.

6. Research Methodology

This study aimed to ―Evaluate the causes of low inclination towards entrepreneurial skills among students of technical, education, and vocational training (TVET) institutions. In research methodology, the research design was discussed with the target population, sample, sampling techniques sources of data, and data collection procedures used in obtaining the required data. This section also gives a brief overview of the data analysis procedure for the future.

6.1 Research design

A quantitative method was used to ―Evaluate the causes of low inclination towards entrepreneurial skills among students of technical, education, and vocational training (TVET) institutes. Burns and Grove (2003:195) define a research design as ―a blueprint for conducting a study with maximum control over factors that may interfere with the validity of the findings.

6.2 Population of the study

The population of the study comprises Diploma Associate Engineer (DAE) students from Colleges of Technology both male and female in Central Zone (Lahore). In this study, only DAE students of the 2nd and 3rd academic year from different Technologies studying in three Colleges of Technology from district Lahore (Central Zone) both male and female were selected as the population of the study. Following the collective calculation, 66.7% of students belong to DAE 2nd year, and 53.3% of students were students in 3rd year.

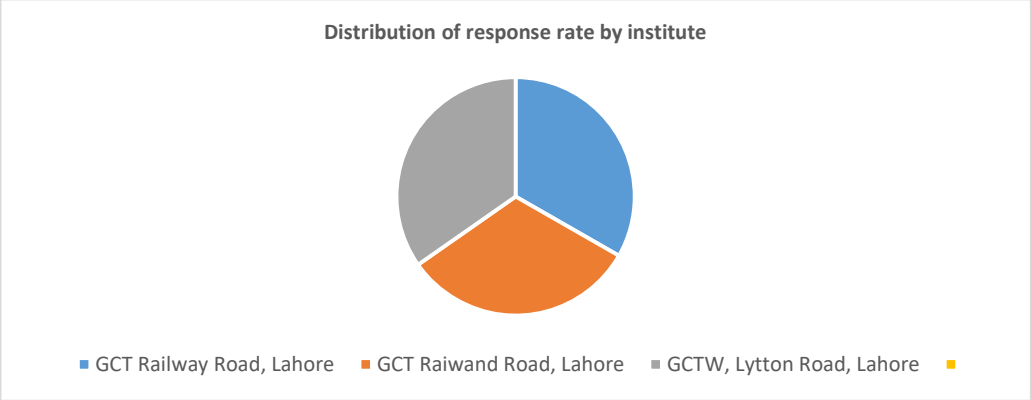
6.3 Sampling design

The process of selecting a portion of the population to represent the entire population is known as sampling (LoBiondo-Wood & Haber 1998:250; Polit&Hungler 1999:95). Random sampling technique was used for the collection for this study. Diploma Associate Engineer (DAE) students of 2nd and 3rd academic year from Colleges of Technology both male and female were the sample of this study. The data was collected from six departments of three TVET institutes situated in Lahore.

6.4 Sample size

The sample size of the study was comprised of 300 students in 2nd and 3rd Years of Diploma Associate Engineer (DAE) in various streams and different colleges of Technology. Target was 500 students and 500 questionnaires were distributed and when 200 questionnaires were rejected and could not be included in the study due to invalid filling, cutting, overwriting, and double-filling the column options. Both male and female members of the population were selected without any discrimination.

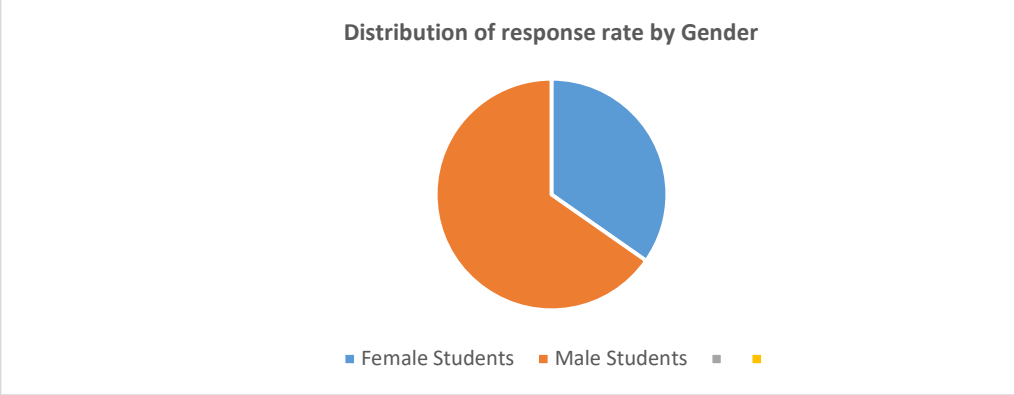
Table 1.1



	F	%age
GCT (Railway Road)	100	33.3
GCT (Raiwand Road)	96	32.0
GCTW (Lytton Road)	104	34.7
Total	300	100.0

F = frequency, %age = percentage

Table 1.2



	F	%age
Female	104	34.7
Male	196	65.3
Total	300	100.0

F = frequency, %age = percentage

7. Instrument for the study

The instrument of the study was a questionnaire which was developed by the researcher in the modification of Likert fashion, on a 6 – point scale, ranging from Strongly Agree (SA=6), Agree (A)=5, Agree more than Disagree (AD)=4, Disagree more the agree(DA)=3, Disagree(D)=2, strongly disagree(SD)=1. Subjects were then instructed to respond to their degree of agreement with the statements contained in the instrument. The questionnaire consists of 32 items divided into three factors including; entrepreneurial intentions, entrepreneurial skills, curriculum contents, and classroom motivational techniques.

8. Data collection

The data was collected through the survey method. A statistically weighted mean was used in answering the research questions. For Data analysis of collected data and results obtained in this study, about research method, some range of tactical methods was used and for easy use of these methods, SPSS software was used.

9. Procedure for data analysis and Interpretation

The data received from the students was analyzed by characteristics. Under each characteristic, relevant competencies were grouped as clusters. The statistical analysis of the study was conducted with the help of a computer using Statistical Package for Social Sciences (SPSS), analysis.

10. Data Analysis and Interpretation

This chapter deals with the analysis and interpretation of data to answer each research question in the more precise manner that was formulated for research. Data related to each research question were analyzed separately by using relevant statistics as described in part-3. Data were collected from the Government College of Technology for both males and females. The data was collected through the instrument of the questionnaire. The first part of the questionnaire consists of "Yes or No" options. The second part of the questionnaire is on the Likert scale whereas the last part of the questionnaire also provides with _Yes or No' option. After the development of the questionnaire, the sample was determined and the random stratified technique was used. After filling out the questionnaires whole data was brought into sequential order to be analyzed and T-test was applied and the following result was generated.

10.1 Generating an independent samples T-test

Table 1.3

Awareness of Entrepreneurship Skills in Students of TVET Institutes

Students	N	M	SD	t	df.	Sig.
2nd Year	140	79.22	18.781	-1.786	276.281	.015
3rd Year	160	82.86	16.178			

This study compared the opinions of second-year and third-year students through an independent samples t-test in TVET institutes regarding entrepreneurship skills. The results showed that there is a significant difference in the scores of second-year students (mean = 79.22, SD = 18.781) and third-year students (mean = 82.86, SD = 16.178) with a two-tailed p-value of 0.075, indicating that third-year students had a higher opinion of entrepreneurship skills.

10.2 Generating an independent samples T-test

Table 1.4

Awareness of Entrepreneurship Skills in Students of TVET Institutes (Gender wise)

Students Gender	N	M	SD	t	df.	Sig.
Female	104	89.05	16.065	6.007	298	.000
Male	196	76.98	16.818			

An independent samples t-test was conducted to compare the opinion of female and male TVET students about entrepreneurship skills. There is a significant difference found between female TVET students. There is a significant

difference in score for Female TVET students (M=89.05, SD+16.065) and Male TVET students (M=76.98, SD=16.818); t (6.007) =0.00, p=0.00 (two-tail).
Overall, the results suggest that there is a significant difference between male and female TVET students in terms of their awareness of entrepreneurship skills. Specifically, female students have a significantly higher awareness of entrepreneurship skills compared to male students

11. Conclusion

The study aimed to identify why TVET students have a low interest in entrepreneurship education. Despite efforts to promote entrepreneurship, previous studies have shown a lack of skills as the main cause. The study found that students have a low inclination towards entrepreneurial skills, and business courses are not meeting the demand for developing these skills. Family background also plays a major role. Previous research suggests that financial support for new startups is not a good idea. The decision to adopt entrepreneurship as a career depends on various contextual factors, including education and training. Acquisition of skills is highly influenced by the perceived value given to education for this purpose. The study used survey research and analyzed course content to evaluate the effectiveness of entrepreneurship education in TVET institutes. The results suggest that urgent measures are needed to improve instructional strategies and curriculum content.

The results are in support of previous research studies, indicating that subsidizing financial support for new startups is not a good idea (De Meza and Southey, 1996; De Meza, 2002; Shane, 2009). The decision to adopt entrepreneurship as a career depends on many contextual factors (Lu¨thje & Franke, 2003) including gender, age educational background(Pihkala & Miettinen, 2004; Noel, 2001) including education and training (Van der Sluis et al., 2006; Van der Sluis & Van Praag, 2007; Karlan & Valdivia, 2006). Learning skills through education and training plays an important role in this decision skills are the most fundamental decisive factor in the success of novice entrepreneurs (Borjas, 2000; Parker, 2004). So the importance of a well-crafted entrepreneurship education program cannot be ignored while focusing on the development and promotion of entrepreneurship (Gibb & Cotton, 1998; Hytti & O'Gorman, 2004). Moreover, the acquisition of skills' level is highly influenced by the perceived value students give to education for this purpose (Kraaijenbrink, Groen & Bos, 2010).

12. Recommendations

The following recommendations are made on how to enhance entrepreneurial skills education through Technical-Vocational Education and Training (TVET) Institutes both male and female.
Inclusion of the development of entrepreneurial skills as an objective at the operational level is necessary for the promotion of entrepreneurship as presented in the national skill policy. There is a need to change the curriculum taught in the name of business management courses, and new content should be added that can help in the development of entrepreneurial skills. Objectives of the courses of business education should be changed to the development of entrepreneurial knowledge and literacy. Teaching methodologies that promote entrepreneurial skills should be integrated into the teaching-learning process. Teaching methodologies should support the active learning of students in the passive cramming culture. Extensive teacher training should be carried out for the development of pedagogical knowledge of entrepreneurship courses. Internships focusing on the development of entrepreneurial skills should be made mandatory for every TVET graduate. Small-scale entrepreneurial ideas competition may be organized among TVET students of all zones to promote entrepreneurial culture. Development of a business plan and competition of this business plan should be part of the teaching-learning process in technical education and vocational training institutes. Entrepreneurial skills and workshops on how to generate and execute business ideas should be integrated into school curricula/education to encourage young people to start their businesses.
Policy actions in this regard would include:
Linking vocational and entrepreneurial training with job placement centers to ensure that the skills profiles supplied match demand. Industrial liaison is a must factor in this regard. Incentives for out-of-school young people should be announced to involve them in the TVET stream to promote social inclusion as well as enhance employability. Regular job fairs, business lectures, and awareness seminars should be conducted in the institute. Awareness lecture sessions of successful TVET or non-TVET entrepreneurs should be arranged. The TVET education system should provide the skills profiles required by the labor market to enhance the employability of young people after graduation.

13. Potential areas for future Research:

This study only provides a snapshot of the students' entrepreneurial skills and perceptions at a particular point in time. Longitudinal studies can be conducted in all Punjab TVET institutes to track the progress of these students over time and determine if their skills and perceptions change as they progress through their education and into the workforce.

There is scope of conducting a more comprehensive comparative study across different TVET institutions or regions to determine if there are any significant differences in the entrepreneurial skills and perceptions of students from different backgrounds or with different educational experiences.
The current study relied on quantitative data analysis, but future research can complement it with qualitative studies to provide more in-depth insights into the obstacles and solutions for promoting employability and entrepreneurial skills among TVET students.

Based on the findings of this study, intervention studies can be conducted to design and implement programs to promote entrepreneurial skills and perceptions among TVET students. These programs can be evaluated for their effectiveness and modified as needed to optimize their impact.

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