# AN EVALUATION OF SKILL DEVELOPMENT PROGRAMMES AND ITS IMPACT ON EMPLOYMENT AND SELF-EMPLOYMENT: A STUDY WITH REFERENCE TO STATE OF GOA

THESIS SUBMITTED FOR THE AWARD OFTHE DEGREE

OF

DOCTOR OF PHILOSOPHY

In

COMMERCE

To

GOA UNIVERSITY

By

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JANUARY 2018

# DECLARATION

I Anthony P. D'Souza, hereby declare that the thesis titled, ***"An evaluation of Skill Development Programmes and its impact on employment and Self-Employment: A study with reference to State of Goa"*** submitted to the Goa University, Goa, for the award of the Degree of Doctor of Philosophy is the outcome of original and independent research work undertaken by me during the period 2013 to 2018. This study is carried out under the guidance of Prof. B. Ramesh, Ex-Dean & Head, Professor, Department of Commerce, Goa University. It has not been previously formed the basis for the award of any degree, diploma, or certificate of this university or any other University. I have duly acknowledged all the sources used by me in the preparation of this thesis.

**Date:**                                          **Mr. Anthony P. D'Souza**

**Place:** Goa University                    (Research Scholar)

# CERTIFICATE

This is to certify that the thesis titled, *"An Evaluation of Skill Development Programmes and its impact on Employment and Self-Employment: A study with reference to State of Goa"* for the award of PhD degree in Commerce, is the bonafide record of the original work done by *Mr. Anthony P. D'Souza,* during the period of study under my guidance. This thesis has not formed the basis for the award of any degree, diploma, certificate, associateship, fellowship or similar title to the candidates of this University or any other University.

**Date:**                                     **Prof. B. Ramesh**

**Place:** Goa University.                      **Guide**

# ACKNOWLEDGEMENT

It gives me immense pleasure to present before the University of Goa my Ph.D. work on the topic entitled, *"An evaluation of Skill Development Programmes and its impact on employment and Self-Employment: A study with reference to State of Goa"*. A long journey of research work was made possible only due to the constant support, timely guidance, and patient advice of many people directly or indirectly concerned with my research work, I would like to express my deep and sincere gratitude to each one of them while presenting my report to the University of Goa.

First and foremost I would like to thank the Almighty God for keeping me healthy and spiritually protecting me in good and bad times during my research work. I am grateful to my late father Mr. Agustin D'souza and my mother Mrs. Graciana D'souza for showing me the light of the world. They are the ones who have continuously across my life shown me the way of truth, sincereness and to achieve my goals.

When I started my research work, it looked like a distant dream which was difficult to achieve. However through the guidance and the encouragement I received from my guide Prof. B. Ramesh which made it possible for me to attain my dream. His advice, guidance, support from time to time helped me to run this herculean race smoothly. I wish to express my warm and sincere thanks to my guide Prof. B. Ramesh for all his guidance, help and support. His benevolent approach throughout my work was commendable. Thank you very much sir. May the Almighty God bless you with good health and a prosperous life so that your expertise may light up the lives of many youth in the field of academics.

The Faculty and the administrative staff of Department of Commerce, Goa University led by Dean and Head Prof. K. B. Subhash who played an important role during my PhD work. I owe my most sincere gratitude to each and every one from the department for their support for their valuable suggestions and encouragements throughout my PhD work.

I wish to place on record the cooperation rendered to me by the management of Fr. Agnel College of Arts and Commerce Pilar, the Principal of Fr. Agnel College, Dr. Fr. Fredrick Rodrigues, Administrator Dr. Fr. Allan Tavares, my colleagues Mr. Roy Gomes, Mr. Agnelo Dias, Dr. Shilpa Desai, Librarian Mr. Milind Mhamal, Mrs. Reshamkaur Bhambra, Dr. Reji George, Mrs. Hazel Colaco, Mrs. Loren Diniz, Mrs.

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# LIST OF ABBREVIATIONS

| SR.NO. | ABBREVIATIONS | FULL FORM |
|---|---|---|
| 1. | AA | Accountancy and Auditing |
| 2. | AET | Auto Engineering Technology |
| 3. | AGRIT | Agriculture Training |
| 4. | AM | Automobile |
| 5. | ApprT | Apprenticeship Training |
| 6. | ARM | Air Condition/Refrigerator Mechanic |
| 7. | BA | Business Application |
| 8. | BTCN | Beautician |
| 9. | CA | Computer Application |
| 10. | CGDM | Commercial Garments Designing and Making |
| 11. | CNC | Computer Numerical Control Operator |
| 12. | COPA | Computer Operating Programming Assistant |
| 13. | CRM | Catering & Restaurant Management |
| 14. | CT | Computer Techniques |
| 15. | DM | Diesel Mechanic |
| 16. | DTPO | Desktop Operator |
| 17. | E | Excellent |
| 18. | EAC | Entrepreneurship Awareness Camp |
| 19. | ED | Entrepreneurship Development |
| 20. | EDP | Entrepreneurship Development Programmes |
| 21. | ELTR | Electrician |
| 22. | EM | Electronic Mechanic |
| 23. | F&B | Food and Beverages |
| 24. | FTR | Fitter |
| 25. | G | Good |
| 26. | GHRSDC | Goa Human Resource Skill Development Corporation |
| 27. | HC | Healthcare |
| 28. | HM | Hotel Management |
| 29. | HN | Home Nursing |
| 30. | HRDFS | Human Resource Development Foundation Society |

| 31. | HSSC | Higher Secondary School Certificate |
|---|---|---|
| 32. | ISR | Insurance |
| 33. | IT | Information Technology |
| 34. | ITI | Industrial Training Institutes |
| 35. | L&MS | Large and Medium Scale |
| 36. | LA | Lab Assistant |
| 37. | MCA | Master of computer Application |
| 38. | MFS | Master of Financial Services |
| 39. | MREEA | Maintenance and Repair of Electrical and Electronic Appliances |
| 40. | NSQF | National Skill Qualification Framework |
| 41. | OITSG | Other Initiatives taken by State Government. |
| 42. | OSS | Office Secretaryship Stenography |
| 43. | P | Poor |
| 44. | PAASA | Programming Assistant and Systems Administration |
| 45. | PLBR | Plumber |
| 46. | RAC | Refrigerator and Air Condition |
| 47. | S | Satisfied |
| 48. | SDP | Skill Development Programmes |
| 49. | SG | Security Guards |
| 50. | SSC | Secondary School Certificate |
| 51. | SSI | Scale Industries |
| 52. | ST | Stockman Training |
| 53. | T&E | Tailoring &Embroidery |
| 54. | T&FP | Tailoring & Food Processing |
| 55. | TEDP | Technology Based Entrepreneurship Development program |
| 56. | TrCPC | Training Cum Production Centre |
| 57. | TUP | Technology Upgradation Programmes |
| 58. | UNID | University Department |
| 59. | Voc | Vocational |
| 60. | WLDR | Welder |

# PUBLICATIONS

1. Skill Development and on the Job Performance: An Evaluation of Perception of Selected Industries in Goa (2014), Published in International Journal of Management and Economics,Vol.I,No.11,Jan-March,2014,pp.14-20.

2. Training and its impact on Performance and Productivity: An Employers' Perception (2014), Published in International Journal of Business, Management and Social Sciences, Vol. IV, Issue 4(II), December 2014, pp.52-57.

3. Apprenticeship Training and Nurturing of Manpower in Goa: An Empirical Study (2017), Published in Scholars World, International Refereed Multidisciplinary Journal of Contemporary Research, Special Issue, February 2017, pp. 190-196, ISSN No. 2319-5789.

4. Impact of Skill Development Programmes on Employment and Self-Employment: A study of Past Students in the State of Goa (2017), Published in Vidhyawarta, International Multilingual Research Journal, Vol-04, Issue-33, September 2017, pp. 41-48, ISSN No. 2394-5303.

1.1 **Background of the Study**

A systematic Western type of formal education started in the 1940s but for the general masses it began only after 1951, when people took the initiative to build schools in their communities. Formal education was institutionalized chronologically from the pre-primary to tertiary level through structured educational systems. The Higher Secondary Education Board was established for the purpose of preparing students for the world of work, especially for meeting middle-level manpower requirements in different fields, and of preparing students for a general higher education in various professional disciplines.

Literacy and basic education are becoming effective tools to help people in solving problems that they face in their daily life and assist them to live in harmony with their rapidly changing environment. People today need to realize that they can use education to seek vocational skills to improve the quality of life to attain happiness, which is based on each individual's personal experiences. Complete happiness can be achieved when there is no physical or emotional conflict between the persons which plays an important role and enables the individuals to create their own harmony between themselves and today's rapidly changing surroundings. Hence, education results in changing both individual lives as well as that of the entire community.

Non-Formal Education first appears in countries where not everybody has access to the formal education system. It was a community-based program, attractive for the underprivileged groups in terms of accessibility, duration, curriculum and teaching-learning environment. In the countries where everybody has access to the formal education system, NFE is rather a complementary education scheme alongside of the formal system.

The development of manpower is a key concept and challenging task before concern authority through proper education system and training activities in the current scenario. The developing economy does not require only human employees but skilled and trained employees in the various sectors by way of new skills and the training curriculum. This requires a new syllabus, new trainers who can teach new skills and the infrastructure where people can be trained. The demand for specific skills is very high, and it is often not met by the educational institutes due to lack of training institutes, training facilities, education policy or it can be due of availability of trained trainers to train required skills. For instance, in spite of the boom in the construction sector, simple skills like water-proofing, fencing, or scaffolding has shortage of supply.

## 1.2 Skill Development Programmes in India

Skills and knowledge are the dynamic forces for the growth of economy and social development of the country. Those Countries having higher and better levels of skills can cope-up more effectively to the challenges and opportunities of work. As India moves progressively towards becoming a 'knowledge economy' it becomes increasingly important that the country should focus on advancement of skills and these skills have to be relevant to the emerging economic environment. In order to achieve the twin targets of economic growth and inclusive development, India's Gross Domestic Product has to grow consistently at 8% to 9% per annum. This requires significant progress in several areas, including infrastructure development, agricultural growth coupled with productivity improvements, financial sector growth, a healthy business environment, ably supported by a skilled workforce.

The agriculture sector accounts for about 20% of the economy. The secondary and tertiary sectors account for about 25% and 55% respectively. For the economy to grow at 8% to 9%, it is required that the secondary and tertiary sectors grow at 10% to 11%, assuming that agriculture grows at 4%. In such a scenario, it is obvious that a large portion of the workforce would migrate from the primary sector (agriculture) to the secondary and tertiary sectors. However, the skill sets that are required in the manufacturing and service sectors are quite different from those in the agriculture sector. This implies that there is/will be a large skill gap when such a migration occurs, as evidenced by a shrinking employment in the agriculture sector. This scenario necessitates skill development in the workforce.

The demand for employment in India in the year 2007 is estimated to grow to 360 million. Most of this demand will be for youth equipped with technical and soft skills. It will require training in flexible and varied skills like Critical thinking, Teamwork, Multilingual abilities and Customer orientedness. However, according to the Planning Commission, there are 460 million in the workforce, 60% of whom are between the ages 15 to 35, it may be a good news but the reality is unemployability because they are trained in civil service type of jobs which are characterized by rote learning, a hierarchical structure, a focus on one skill, one language, a rigid and inflexible attitude. The numbers say that a billion plus population with unemployment at 9.1% i.e. 42 million people and by 2010 it will grow to 63 million people. The number of college graduates is expected to rise by 2020 in-between 7.5 million to 10 million annually and in the same period about 10 million new jobs will be created. Although it looks like a

perfect demand-supply balance, 80% of the manpower will be unemployed which is quite an irony.  The labour force participation is as low as 460 million of a 1 billion population. Organized employment has been stagnant at 30 million for thirty years (22 million in Public Sector, 8 million in Private Sector). Given that 269 million people are below the poverty line, even the majority of those employed can barely sustain themselves.

In the eleventh five year plan, 19.29 percent of the plan outlay was allocated to the education sector. Today the Indian education system is one of the largest in the world after China and USA. There has been an exponential increase in three indicators of higher education viz., the number of educational institutions, teachers and students. The number of universities increased 19 fold from 25 in 1950 to 467 in 2010; number of colleges increased 37 fold from 700 in 1950 to 25951 in 2010; teacher strength of 700 in 1950 increased to 5.88 lakh with an estimated student enrolment of 136 lakhs students in 2010. There are 1500 research institutions in the country doing research in varied spheres like science and technology, economics, and developmental issues. Every year India produces more than 200,000 engineering graduates, 300,000 post graduates from non engineering colleges, 2,100,000 other graduates and 9,000 doctorates (PhD). There are 5114 vocational schools (ITI's), covering 98 vocations. The duration of these courses is between 1 and half to 3 year. The eligibility for entry is between classes 8th to 12th The ITIs position at present is a very sad story. 1893 vocational schools are run by the government with 4 lakh students and 3218 ITI's are run by the private sector and have 3.46 lakh students.

Skill development and entrepreneurship efforts across the country have been highly fragmented so far. As compared to developed countries, where the percentage of skilled employees is between 60% to 90% of the total workforce, India records as low as 5% of workforce (20-24 years) with formal vocational skills. There is a need for speedy reorganization of the ecosystem of skill development and entrepreneurship promotion in the country to suit the needs of the industry and enable decent quality of life to its population.  Today, more than 20 Ministries/Departments run 70 plus schemes for skill development in the country. The various ministries of central government engaged in skill development programmes are Ministry of Agriculture, Ministry of Food Processing, Ministry of Health and  Family  Welfare, Ministry of Heavy Industries and Public Enterprises, Ministry of Human Resource Development, Ministry of Information Technology, Ministry of  Labour, Ministry of Rural Development, Ministry of MSME, Ministry of Khadi and Village Industries, Ministry of

Social Justice and Empowerment, Ministry of Textile, Ministry of Tourism, Ministry of Tribal Welfare, Ministry of Urban Development and Poverty Alleviation, Ministry of HUDCO (construction), Under Department of Women and Child. However, there are gaps in the capacity and quality of training infrastructure as well as outputs, insufficient focus on workforce aspirations, lack of certification and common standards and a pointed lack of focus on the unorganized sector.

Recognizing the need of skill development, skill development programmes were started in 2009 and to coordinate the efforts of all concerned stakeholders in the field of Skill Development and Entrepreneurship, Government of India has notified the formation of the Department of Skill Development and Entrepreneurship on 31st July, 2014 which subsequently led to the creation of the Ministry of Skill Development and Entrepreneurship on 10th November, 2014. The Ministry has strategized a road map to significantly scale up Entrepreneurship Development initiatives across the country. The aim is to build a robust ecosystem for entrepreneurship through advocacy and promotion, providing access to entrepreneurship content, pedagogy and best practices delivered through ICT based e-content facilitated by local faculty and incubator network.

## 1.3 Skill development scenario in Goa

Goa is known as one of the best tourist destination in the World as well as place for good education. The programs offered by colleges in Goa are undergraduate, post graduate, PhD as well as diploma courses. Both technical and general courses are offered by the colleges with subjects like social science, life science and environment, management studies, engineering and architecture, fine art, music, language, natural science, commerce law, education and medicine. For higher education, colleges in Goa are affiliated to Goa University, which is the only university in this state formed under Goa University Act 1984. There are a total of 53 colleges in the state which are administered by private agencies as well as by the Government. Technical education is run by government through Directorate of Technical education which also includes participation of government as well as private bodies.

There are various institutions involved in skill development programmes but the policy is not properly implemented in the state of Goa. The Dexter report 2013 on skill development in Goa shows that in manufacturing sector there is a high demand for skilled employees in the area like degree and diploma in electric and electronics, mechanic, etc. So also in semi-skilled the demand is for fitter, electrician, electronic

mechanic, machine operator, and helpers in under unskilled category. The availability of trained youth is low in case of semi-skilled and unskilled category such as grinder, programmer, machinist, motor vehicle mechanic, painter, machinist, turner, diesel and generator mechanic, draughtsmen, plastic process operator, storekeeper and helper as unskilled labour. The youth aspiration is high in case of semi-skilled worker in the areas like electrician, electronics, welder, plumber, programmer, machinist, mechanic, etc.

In the service sector there is demand for skill worker in the areas of hospitality and tourism as room attendants, captain, bartenders, chef, stewards, etc. In the transport and logistics demand is for drivers, floor supervisors, etc. whereas, in the real estate masons, helpers, fitters are badly needed. In the household sector demand is for plumber, electrician, etc. The supply of trained youth is low in the areas like captains, bartenders, spa therapist, floor supervisors, masons, plumbers, floor salesmen, backhand assistants, etc. But still the youth aspiration is high in case of captains, receptionist, bartenders, chef, stewards, computer operators, Tele-Callers, and floor sales. The development of manpower is a key concept and challenging task before concern authority through proper education system and training activities in the current scenario. The developing economy does not require only human employees but skilled and trained employees in the various sectors. The demand for skilled labour is very high at national and international market. The Government of India has taken a mission of skill development of 500 million by 2022 for which 1000 crores are allocated in the 2013 as well as 2014 annual budget. Out of this 500 million, National Skill Development Corporation (NSDC) was suppose to train 150 million; Ministry of Labour 100 million, MHRD 50 million and the rest 230 million would be trained by 18 ministries, departments and various other organizations.

Skill is the backbone of employment and self- employment in the study area. The study area is a small state having peculiar background, farma based industries, fast moving goods, consumer industries, etc. which requires different type of skills to provide jobs. In a pilot study it has been observed that there is a skill gap between jobs and job aspirants. Here is the demand and supply side estimation for the year 2012-2017 and 2017-2022 as per Dextor's Report submitted to Government of Goa in the year 2013 for the study conducted on skill development in the state of Goa. The total demand for all the skill levels in all the three sectors Agriculture, Manufacturing and Service is 6290, 12163 and 21194 for the year 2012-2017 and for the period 2017-2022 the total estimated demand for skilled workers is 6944, 15658 and 26714 respectively.

### 1.4 Problem of the Study

Literacy in India is the key for socio-economic progress although there is a high literacy rate in Indian grew from 12% in 1947 to 74.04% (India) and 87% Goa (2011) which is greater than six to seven fold improvement respectively, the level is well below the world average literacy rate of 84% of other nations, India currently has the largest illiterate population.

It is important that there is a need to impart not only formal education to the students enrolled in the higher secondary graduate and post-graduate level  but also to include skill development training programmes to choose their career in the form of employment and self-employment. The industries that have employed employees required to be re-trained to upgrade their present skill for better productivity and efficiency at the work place.

In India 12 million people are expected to join the workforce every year, and the existing skill development capacity of about 3.4 million, it is thus required to enhance the skilling and technical education capacity to about 15 million. The unemployment, drop-outs and lack of skilled labours are important aspect in our society. In some of the sectors where the requirement of skill is very high but no Ministries are involved in development skills for instance the construction sector, consumer and retailing sector, IT services, finance sector etc. Even though drop-out rates in Goa shows a decreasing trend, the greatest concern is that on an average 40-50 % students are drop-out till they reach from primary level to graduation level.  The rate of skilled workforce of India is only 3.5% which is very low as compared to other countries in the world. Students pass out of the colleges as standardized graduates with no solid employable skills and only 10 % of the fresh graduates and 25 % of engineering and MBA graduates are capable of getting employed with employability skills. Thousands of students who ultimately graduate from the formal educational system are unskilled.

**Therefore, this research will be explorative in nature. Very little research studies have been undertaken on the topic and therefore attempts will be made to probe into these issues.** *The researcher has focused on a. required skills, b. available skills, c. skill gap analysis, d. evaluation of skill development programmes, e. skill development programmes and its impact on employment and self employment, etc. The researcher has focused on training providers, students, training topics, training trades, etc. basic variables for investigating impact of skill development programmes on employability and self employability in the state of Goa.*

## 1.5 Objectives of the Study

The topic *"An evaluation of Skill Development Programmes and its impact on Employment and Self-employment: A study with reference to State of Goa"* was carried out with the purpose of following objectives:

1. To evaluate the various components and the present scenario of Skill Development Programmes in the state of Goa.

2. To find the perspectives of Institutional Heads for Skill Development Programmes conducted in the state of Goa.

3. To study the attitude of On-going students towards Facilities available and Curriculum in the state of Goa.

4. To assess the contribution of Skill Development Programmes conducted by various skill training institutes and its impact on Employment and Self-employment in Goa.

5. To identifying the gap between Human Resource Requirements by industries and the Availability of Human Resources in the state of Goa.

6. To compare the perceptions of different stakeholders regarding Skill Development Programmes in the state of Goa.

## 1.6 Hypothesis

For the purpose of finding out the answers to each objective, information was collected on various aspects from different stakeholders and a set of separate hypothesis and sub-hypothesis were formulated to test the validity of the data collected whereas no hypothesis was framed for the first objective. Further main hypothesis and sub-hypotheses were analyzed with the help of various statements and tested with the help of statistical tools.

HO: Perspectives of Institutional Heads for Skill Development Programmes is favourable.

H0: Attitude of On-going students towards Facilities available and Curriculum is satisfactory.

H0: Impact of Skill Development Programmes on Employment and Self-employment is insignificant.

H0: Requirement of Human Resources to the Availability of Manpower is adequate.

H0: Perceptions of different stakeholders regarding Skill Development Programmes is not significant.

A brief overview of the above hypothesis which is being tested with the help of various statement and statistical tools is shown in the following table 1.1 below;

**Table 1.1: Table showing the hypotheses and its various aspect of testing**

| # | Aspects of Skill development Programmes Tested based on the Objectives | Gender (M / F) | Locality (U / R) | District (N / S) | Taluka (12) | Stream (10) |
|---|---|---|---|---|---|---|
| 1 | **Opinions of Institutional Heads** | | | | | |
| | **1**) Students acquire enough job skills after the completion of the course. 2) Training/internship provided is sufficient for them to place on the job. 3) Confident that the trained students are competent to take up the job. 4) Curriculum framed by the concern authority is relevant to the job required by the industries. 5) Changes in course should be made to meet the expectation of the employer. 6) Need to proper implementation of skill development mission in the state. 7) Skill development courses are better than general courses to get jobs. 8) Skill courses has very much scope in the present employment field. 9) Students with skill courses are more competent than the general stream. 10) Trained students get job soon after completion of course. | The second objective is being tested based on institutional heads categorized into five groups such as Gender, Locality, District, Talukas and Streams with the help of ten aspects of skill development programmes. The statistical tool used were percentage, mean, independent sample t-test and one way ANOVA to test the statements. | | | | |

| # | Aspects of facilities available and curriculum tested based on the Objective | Gender (M / F) | District (N / S) | Talukas (12) | Stream (10) | Trades (41) |
|---|---|---|---|---|---|---|
| 2 | **Attitude of ongoing students** | | | | | |
| | 1) Class rooms 2) Library facility 3) Teaching aids 4) Infrastructure facilities 5) On the job training/ internship 6) Latest tools and equipments. 7) Teachers/ Faculty of the Course 8) Instructors for internship/training places 9) Theory teaching in the class 10) Practical training in the institution 11) Syllabus framed for the course 12) Overall Curriculum of the course | The third objective is being tested based on ongoing students categorized into five groups such as Gender, District, Talukas, Streams, and Trades with the help of twelve aspects of facilities available and curriculum. The statistical tool used were percentage, mean, independent sample t test and one way ANOVA to test the statements. | | | | |

| # | Aspects of impact on employment and self-employment | Streams (10) | Trades (43) | Reasons (4) |
|---|---|---|---|---|
| 3 | **Status of Past students** | | | |
| | 1) Self- Employment and Job Employment 1) Self-Employment (Full time/part time) 3) Job-Employment (Full time/Part time) | The fourth objective is being tested based on past students categorized into three groups such as Streams, trades and Reasons for joining with the help of three aspects to check impact on employment. The statistical tool used were cross tabulation, ANOVA, Coefficient test, Multinomial Logistic Regression test, Chi-square test and **Post hoc test** to test the statements. | | |

| # | Aspects of requirement and Availability of human resource | Skills (4) | Qualification (10) |
|---|---|---|---|
| 4 | **Gap between Requirement and availability** | | |
| | 1) Specialized skills 2) Highly Skilled 3) Semi Skilled 4) Minimally Skilled 5) NSQF certificate Holders 6) Vocational certificate Holders 7) PG Degree holders 8) ITI Certificate holder 9) Diploma Holders 10) HRDFS Technical Students 11) EDP Trainees 12) Security Guards 13) Tailoring and Embroidery trainees 14) Apprentices | The fifth objective is being tested based on industrialists categorized into two groups such as skills and qualifications with the help of fourteen aspects (four skills and ten qualifications) to check the requirement and availability of human resource in the industries. The statistical tool used were group statistics and independent sample t-test to test the statements. | |

| # | Aspects of perceptions concern to skill development programmes | All Respondents |
|---|---|---|
| 5 | **Perceptions of stakeholders** | |
| | 1) Introduction of skill development programmes 2) Reason for failure 3) Responsibility of failure | The sixth objective is being tested based on all stakeholders categorized into one single group with the help of three aspects to check the perception towards skill development programmes. The statistical tool used were cross tabulation, one way ANOVA and Post Hoc test to test the statements. |

The results of the above hypothesis testing are given in the succeeding chapters.

**1.7 Research Methodology**

This research will be explorative in nature. Hardly any research studies have been undertaken on this topic and therefore attempts will be made to probe into these issues. The researcher has studied the *"An Evaluation of Skill Development Programmes and its impact on Employment and Self Employment: A Study with reference to State of Goa"* Research methodology is divided into five sections i.e. Section I contains Data Sources, Section II is on Period of the Study, Section III is on sampling method, Section IV Sample Selection and collection, Section V is on Statistical tools, techniques and models used for testing hypothesis in the study.

**1.7.1 Data Sources and Data Collection**

The data required for the study was collected from primary as well as secondary sources as there was a scope for both types of data in the study. The primary data was collected on multistage random sampling method from various Institutional Heads, Present Students, Past students and Industrialist through a structured questionnaire and face to face interview. The secondary sources include books, journals, handbooks, newspapers, circulars, bulletins, working papers, reports, websites and Government departments.

**1.7.2 Scope of the Study**

The time frame chosen for the study was limited to the state of Goa for a period of 5 years. The present study is based on last 5 years out of which 4 years are considered as the past years i.e. 2011-12, 2012-13, 2013-14 and 2014-15 whereas 2015-16 is taken as present year for the purpose of analysis. A sample of Educational institutions, students and training industries was selected from High schools, Higher Secondary Schools, Post graduation institutues offering one term internship, Industrial Training Institutes, Human Resource Development Foundation Society, Agnel Entrepreneurship Development Programmes, Training cum Production Centre, Industrial units, Incubation Centre and Government Departments in Goa. An attempt was made to collect equal number of sample from institutions, trades, districts, talukas and gender wise sample was collected to analyze, evaluate and find impact of skill development programmes on employment and self-employment in the state of Goa.

### 1.7.3 Sampling Method

The various statistical methods are used to select sample are Salant and Dillman, Taro Yahman, Raosoft, Wald method for the binomial distribution, etc. are used by the researchers across the world. Among the four different methods the researcher used Priscilla Salant and Don A. Dillman method to determine the sample size for the study. A brief description of the methods is as follows;

### 1.7.3.1 Priscilla Salant and Don A. Dillman method

**Table 1.2 Priscilla Salant and Don A. Dillman**

| Split- Population | ± 3% Sampling error | | ± 5% Sampling error | | ± 10% Sampling error | |
|---|---|---|---|---|---|---|
| | 50/50 split | 80/20 split | 50/50 split | 80/20 split | 50/50 split | 80/20 split |
| 100 | 92 | 87 | 80 | 71 | 49 | 38 |
| 250 | 203 | 183 | 152 | 124 | **70** | 49 |
| 750 | 441 | 358 | 254 | 185 | 85 | 57 |
| 1,000 | 516 | 406 | 278 | 198 | 88 | 58 |
| 5,000 | 880 | 601 | 357 | 234 | 94 | 61 |
| 10,000 | 964 | 639 | **370** | 240 | 95 | 61 |
| 25,000 | 1,023 | 665 | 378 | 234 | 96 | 61 |
| 100,000 | 1,056 | 678 | **383** | 245 | 96 | 61 |
| 1,000,000 | 1,066 | 682 | 384 | 246 | 96 | 61 |
| 100,000,000 | 1,067 | 683 | 384 | 246 | 96 | 61 |

The above table is used to select sample size. A "50/50" split means the population is relatively varied. An "80/20" split means the population is less varied; most people have a certain characteristic, a few do not. Unless the split is known, it is best to be conservative.

### 1.7.3.2 Taro Yahman method

The formula used to calculate sample size is as follows;

$$n = N / 1 + N(e)^2$$

Whereby N= Total Population

e= Sampling Error

### 1.7.3.3 Raosoft method

The sample size calculation is done by using a simple calculator by using Raosoft calculation method as;

$$x \quad = \quad Z(^c/_{100})^2 r(100\text{-}r)$$

$$n \quad = \quad {}^{N\,x}/_{((N\text{-}1)E^2 + x)}$$

$$E \quad = \quad \mathbf{Sqrt[}^{(N\,\text{-}\,n)x}/_{n(N\text{-}1)}\mathbf{]}$$

The sample size can also be calculated by entered data as per request of the software like Margin of Error, level of confidence, population size and response distribution which automatically calculate sample size required for the study.

### 1.7.4 Sample Size

In this study the researcher has covered 2 districts, 12 talukas, 81 institutes, 503 present students, 624 past students and 72 industries and start-up companies. The researcher has used appropriate methodology for the sample selection, data collection, data analysis and interpretation. The researcher has interacted with students, trainers, government officials, industrial people, HR managers, head of the institutes, etc. A survey method was used to collect data from the various stakeholders through a structured close ended questionnaire to conduct analysis. The sample size is calculated based on Salant and Dillman at 10% error 50/50 split i.e. upto 250 population = 70 (70/235*100=30%). A sample was collected more than the required sample (11) for the study. The summary of data selected and collected is given below in table 1.3;

### 1.7.4.1 Selection of Institutional Heads

**Table 1.3 Summary of Head of the Institution/Department**

| Sr. No | Institutions/ Industries | Total No. of Institutes in the State | Actual No. of Institutions engaged in skill Dev. Prog. | Total No. of institutions selected for study | No. of institutes collected | Excess (+) Deficit (−) |
|---|---|---|---|---|---|---|
| 1 | High Schools | 395 | 75 | 21 | **24** | +3 |
| 2 | HSS/ Vocational studies | 105 | 49 | 14 | **16** | +2 |
| 3 | University Departments | 03 | 03 | 01 | **01** | -- |
| 4 | ITI's | 14 | 14 | 05 | **06** | +1 |
| 5 | HRDFS Technical Institutes | 53 | 53 | 16 | **18** | +2 |
| 6 | EDP | 01 | 01 | 01 | **02** | +1 |
| 7 | GHRSDC | 01 | 01 | 01 | **01** | -- |
| 8 | Training Cum Production | 25 | 25 | 06 | **07** | +1 |
| 9 | Apprenticeship Training/Start-up | 06 | 06 | 02 | **2** | - |
| 10 | Other Initiatives by State Government | 08 | 08 | 03 | **04** | +1 |
| | TOTAL | 611 | **235** | **70 (30%)** | 81 | **+11** |

*(Source: Government departments)*

### 1.7.4.2 Selection of Students

The students were selected from 10 different streams as ongoing and past students which are shown in the below tables. The NSQF trades were started in the year 2014-15 with 15 trades in the Government School only and only four trades namely IT, Healthcare, Automobile and Retail were introduced for X<sup>th</sup> Std. A total of 1200 students were enrolled for 2014-15 and 2015-16 which were considered as total population for the study. The table 1.4 below shows the classification of the students;

**Table 1.4 Classification of NSQF Students (trade wise) in HS**

| Sr.No | Names of Skill Courses/ Trades | No. of Students Enrolled | | | | TOTAL | |
|---|---|---|---|---|---|---|---|
| | | 2014-15 | | 2015-16 | | | |
| | | IX | X | IX | X | IX | X |
| 1 | IT/ITES | 270 | 141 | 262 | 137 | 532 | 278 |
| 2 | Healthcare | 582 | 456 | 00 | 00 | 582 | 456 |
| 3 | Automobile | 105 | 45 | 467 | 276 | 572 | 321 |
| 4 | Retail | 61 | 42 | 198 | 103 | 259 | 145 |
| 5 | Media and Entertainment | 68 | -- | -- | -- | 68 | -- |
| 6 | Agriculture | 174 | -- | -- | -- | 174 | -- |
| 7 | Physical Education | 89 | -- | 47 | -- | 136 | -- |
| 8 | Construction | 44 | -- | 49 | -- | 93 | -- |
| 9 | Telecommunication | 45 | -- | 39 | -- | 84 | -- |
| 10 | Travel and Tourism | 178 | -- | 31 | -- | 209 | -- |
| 11 | Apparel | 38 | -- | 82 | -- | 120 | -- |
| 12 | Logistics | 46 | -- | 75 | -- | 121 | -- |
| 13 | BFSI | -- | -- | 32 | -- | 32 | -- |
| 14 | Beauty and Wellness | -- | -- | 23 | -- | 23 | -- |
| 15 | Automotive | 28 | - | 31 | - | 59 | - |
| | TOTAL | 1728 | *684 | 1336 | *516 | 3064 | *1200 |

*(Source: Department of Education)*

The vocational courses in Higher Secondary Schools were started before 2011-12. A total of 13172 students were enrolled from 17 trades for the last 5 years (2011-12 to 2015-16) and they have been considered as total population for the study. The table 1.5 below shows the classification of the students;

**Table 1.5 Classification of Vocational Students (trade wise) in HSS**

| Sr. No | Names of Skill Courses/ Trades | No. of students | | | | | Total |
|---|---|---|---|---|---|---|---|
| | | 11-12 | 12-13 | 13-14 | 14-15 | 15-16 | |
| 1 | Catering and Restaurant Management | 564 | 513 | 455 | 617 | 600 | **2749** |
| 2 | Hare Care Assistant | 47 | 49 | 53 | 111 | 88 | **348** |
| 3 | Office Secretary ship Stenography | 469 | 451 | 425 | 494 | 384 | **2223** |
| | Auto Engg. Technology | 209 | 200 | 188 | 206 | 200 | **1003** |
| 5 | Commercial Garments Designing and Making | 294 | 296 | 254 | 310 | 304 | **1458** |
| 6 | *Insurance | 95 | 91 | 73 | 111 | 89 | **459** |
| 7 | *Accountancy and Auditing | 215 | 174 | 186 | 191 | 172 | **938** |
| 8 | *Computer technique | 279 | 231 | 221 | 258 | 227 | **1216** |
| 9 | Bakery and Confectionary | 78 | 64 | 66 | 73 | 74 | **355** |
| 10 | MREEA | 197 | 161 | 202 | 224 | 220 | **1004** |
| 11 | Travel and Tourism | 57 | 51 | 44 | 72 | 42 | **266** |
| 12 | *Agriculture | -- | -- | -- | -- | 20 | **20** |
| 13 | Horticulture | 57 | 32 | 55 | 87 | 68 | **299** |
| 14 | Floriculture | | | | 13 | | **13** |
| 15 | Electronic Technology | 128 | 99 | 123 | 159 | 135 | **644** |
| 16 | Industrial management | 14 | 22 | 11 | 13 | 15 | **75** |
| 17 | Marketing and Salesmanship | 33 | 18 | 18 | 12 | 21 | **102** |
| | TOTAL | 2736 | 2452 | 2374 | 2951 | 2659 | 13172 |

*(Source: Department of Education)*

The University departments offering one term internship were only considered for the study. A total number of 750 students were enrolled from 3 Departments for last 5 years (2011-12 to 2015-16) were taken as a total population for the study. The table 1.6 below shows the classification of the students;

### Table 1.6 Classification of University Students

| Sr.No | Names of Trades | No. of Students Enrolled | | | | | TOT |
|---|---|---|---|---|---|---|---|
| | | 11-12 | 12-13 | 13-14 | 14-15 | 15-16 | |
| 1 | MCA | 30 | 29 | 60 | 59 | 60 | **238** |
| 2 | MFS | 25 | 40 | 41 | 42 | 61 | **209** |
| 3 | MBA | 61 | 63 | 60 | 60 | 59 | **303** |
| **TOTAL** | | **116** | **132** | **161** | **161** | **180** | **750** |

*(Source: Goa University)*

The ITI offering various skills were considered for the study. A total number of 16624 students were enrolled from 32 trades for last 5 years (2011-12 to 2015-16) were taken as a total population for the study. The table 1.7 below shows the classification of the students;

### Table 1.7 Classification of ITI Students under Craftsmen Training

| Sr. No | Name of Trades | No. of Students Enrolled | | | | | Total |
|---|---|---|---|---|---|---|---|
| | | 11-12 | 12-13 | 13-14 | 14-15 | 15-16 | |
| 1 | Electrician | 381 | 370 | 341 | 342 | 391 | **1825** |
| 2 | COPA | 325 | 328 | 326 | 318 | 327 | **1624** |
| 3 | Plumber | 253 | 271 | 252 | 281 | 289 | **1346** |
| 4 | Sewing Technology | 148 | 143 | 150 | 136 | 143 | **720** |
| 5 | COE Fabrication BBBT | 163 | 158 | 81 | 56 | -- | **458** |
| 6 | COE Fabrication & Fitting | 23 | 56 | 30 | 20 | 21 | **150** |
| 7 | Welder | 169 | 177 | 160 | 160 | 186 | **852** |
| 8 | Fitter | 185 | 189 | 182 | 197 | 213 | **966** |
| 9 | Mechanic Motor Vehicle (Petrol) | 158 | 169 | 149 | 157 | 165 | **798** |
| 10 | IT and Electronic System Maintenance/Desktop | 46 | 61 | 56 | 46 | 56 | **265** |
| 11 | Electronic Mechanic | 139 | 148 | 127 | 144 | 146 | **704** |
| 12 | Secretarial Practice | 20 | 17 | 15 | 21 | 17 | **90** |
| 13 | Diesel Mechanic | 237 | 291 | 256 | 241 | 278* | **1302** |
| 14 | Hair and Skin Care | 51 | 66 | 52 | 48 | 51 | **268** |
| 15 | Turner | 20 | 24 | 24 | 32 | 41 | **141** |
| 16 | Hospitality mgt (BBBT) (Food Production, Front office management, F&B, House keeping) | 257 | 247 | 225 | 222 | 258 | **1209** |
| 17 | Instruments mechanic | 45 | 40 | 40 | 45 | 45 | **215** |
| 18 | Draughtsman mechanical | 16 | 16 | 16 | 16 | 16 | **80** |
| 19 | Draughtsman civil | 40 | 40 | 40 | 40 | 44 | **204** |
| 20 | Stenography and Secretarial assistant | 20 | 20 | 20 | 20 | 20 | **100** |
| 21 | Wireman | 15 | 16 | 16 | 16 | 18 | **81** |
| 22 | Repair and Maintenance (Domestic appliances) | 32 | 30 | 30 | 32 | 32 | **156** |
| 23 | Repair and Maintenance (HT and LT) | 30 | 30 | 30 | 30 | 34 | **154** |
| 24 | DTPO | 47 | 43 | 54 | 48 | 55 | **247** |
| 25 | COE (automobile –BBBT) | 220 | 196 | 194 | 170 | 209 | **989** |
| 26 | Mechanic (Refrigerator and Air condition | 50 | 64 | 86 | 80 | 96 | **376** |
| 27 | Steward | 14 | 11 | 16 | 18 | 25 | **84** |
| 28 | Data Entry Operator | 29 | 28 | 25 | 26 | -- | **108** |
| 29 | IT(Hardware repairer, Web designing, Computer Networking,) | 194 | 183 | 168 | 136 | 120 | **801** |
| 30 | Software testing/AOCP | -- | -- | -- | -- | 29 | **29** |
| 31 | RAC | 35 | 29 | 31 | 24 | 48 | **167** |
| 32 | Carpenter | 20 | 25 | 25 | 20 | 25 | **115** |
| **TOTAL** | | **3382** | **3486** | **3217** | **3142** | **3398** | **16624** |

*(Source: Directorate of Craftsmen Training)*

The HRDFS offers 41 skill trades which were considered for the study. A total number of 5429 students were enrolled for the last 5 years (2011-12 to 2015-16) were taken as a total population for the study. The table 1.8 below shows the classification of the students;

**Table 1.8 Classification of HRDFS students**

| Sr. No | Names of Trades | 11-12 | 12-13 | 13-14 | 14-15 | 15-16 | TOT |
|---|---|---|---|---|---|---|---|
| 1 | Computer Application | 130 | 174 | 218 | 260 | 154 | **936** |
| 2 | Business Application | 92 | 100 | 141 | 144 | 96 | **573** |
| 3 | Desk top Publishing /Printing Technology | 48 | 28 | 73 | 43 | 40 | **232** |
| 4 | Computer Hardware and Networking Engineering | 21 | 32 | 47 | 16 | 9 | **125** |
| 5 | Turner | 8 | 7 | 11 | 13 | 17 | **56** |
| 6 | Plumber | 9 | 4 | 8 | 10 | 18 | **49** |
| 7 | *Home Nursing | 113 | 120 | 98 | 169 | 140 | **640** |
| 8 | Electrician | 20 | 41 | 41 | 21 | 24 | **147** |
| 9 | Advanced Refrigeration and Air conditioning | 33 | 53 | 41 | 37 | 51 | **215** |
| 10 | Computer Operator and Programmed Assistant | 72 | 69 | 86 | 64 | 27 | **318** |
| 11 | Hotel/Restaurant Mananagement. and Catering Technology | 43 | 61 | 52 | 49 | 51 | **256** |
| 12 | Tailoring | 29 | 33 | 41 | 53 | 15 | **171** |
| 13 | Automobile | 14 | 59 | 44 | 41 | 49 | **207** |
| 14 | Beautician | 10 | 14 | 15 | 23 | 11 | **73** |
| 15 | Fitter | 10 | -- | -- |  | -- | **10** |
| 16 | Diploma in Medical Laboratory Technology | 08 | 21 | 10 | 15 | 18 | **72** |
| 17 | Diploma in ECG technology | 3 | 02 | 3 | 6 | 6 | **20** |
| 18 | Diploma in X-ray Technology | -- | 8 | 3 | 15 | 8 | **34** |
| 19 | Diploma in CT Scan /Ultrasound Technology | 2 | 2 | 1 | 1 | -- | **6** |
| 20 | Diploma in Hospital Mgt. Technology | -- | 4 | 1 | -- | --- | **5** |
| 21 | Diploma in Operation Theatre Technology | 2 | -- | 6 | 4 | 3 | **15** |
| 22 | Diploma in Renal Dialysis Technology | 6 | 6 |  | 4 | -- | **16** |
| 23 | Diploma in Nursing Assistant Technology | -- | -- | 8 | 5 | 1 | **14** |
| 24 | Diploma In Ophthalmic Technician | -- | -- | -- | 10 | 6 | **16** |
| 25 | Diploma in Medico-Lab Technician | -- | -- | -- | 20 | 10 | **30** |
| 26 | Electrician | -- | 20 | -- | -- | 24 | **44** |
| 27 | Fashion Designing | -- | 9 | 3 | -- | -- | **12** |
| 28 | Food and Beverage Service | 17 | 45 | 60 | 61 | 32 | **215** |
| 29 | Food Production | 31 | 27 | 47 | 52 | 49 | **207** |
| 30 | Travel and Tourism Mgt. | 20 | 30 | 13 | 10 | 32 | **105** |
| 31 | Maintenance construction mining and Road Equipments | 51 | 50 | 16 | -- | -- | **117** |
| 32 | Front office/Office Mgt. | 7 | 8 | 12 | 26 | 32 | **85** |
| 33 | House Keeping | 2 | 8 | 14 | 20 | 7 | **51** |
| 34 | Bakery | -- | 17 | 14 | 21 | 12 | **64** |
| 35 | Travel and Tourism Mgt. | 20 | 19 | 10 | 10 | 22 | **81** |
| 36 | Networking and Hardware | -- | 5 | -- | -- | -- | **5** |
| 37 | Bartender | -- | 16 | -- | -- | -- | **16** |
| 38 | Certificate in Montessori Teaching | -- | 24 | 50 | 48 | 41 | **167** |
| 39 | HMCT | -- | -- | 12 | 7 | -- | **19** |
| 40 | Web Designing/Film animation | -- | -- | 5 | -- | -- | **4** |
| 41 | COPA | -- | -- | -- | 1 | -- | **1** |
| **TOTAL** |  | **822** | **1116** | **1204** | **1282** | **1005** | **5429** |

*(Source: Directorate of Craftsmen Training)*

The EDP offers 6 trades which were considered for the study. A total number of 751 students were enrolled for last 5 years (2011-12 to 2015-16) which were taken as a total population for the study. The courses with 4 weeks (SDP), 3 weeks (TUP), 3 days (EAC) 10 days (EDP) and 6 weeks (TEDP) are only considered for the study. The table 1.9 below shows the classification of the EDP students;

**Table 1.9 Classification of trainees under Agnel EDP Institute, Verna**

| Sr No | Programme | Funded by | Enrolment for the year | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 11-12 | 12-13 | 13-14 | 14-15 | 15-16 | TOTAL |
| 1 | Entrepreneurship Awareness Camp | Directorate of Industries trade and Commerce Govt. of Goa | 24 | 38 | 33 | 56 | 56 | **207** |
| 2 | Entrepreneurship Development Programme | | 21 | 22 | 27 | 36 | 26 | **132** |
| 3 | Technology Based Entrepreneurship Development programm | | 23 | 28 | 25 | 25 | 25 | **126** |
| 4 | Technology Upgradation Programme | | 36 | 24 | 25 | 27 | 21 | **133** |
| 5 | Skill development Programme | | - | 13 | - | 21 | 16 | **50** |
| 6 | Entrepreneurship Awareness Camp (EDP) | PMEGP | 16 | 28 | -- | 25 | 34 | **103** |
| **TOTAL** | | | **120** | **153** | **110** | **190** | **178** | **751`** |

*(Source: Agnel Entrepreneurship Development Institute, Verna)*

The GHRSDC offers 2 trades out of which one trade was considered for the study. A total number of 1787 trainees were enrolled for last 2 years (2014-15 and 2015-16) which were taken as the total population for the study since the training was started only from 2014-15. The table 1.10 below shows the classification of the trainees;

**Table 1.10 Classification of Trainees under GHRSDC**

| Sr. No | Types of Training | Place of Training | No. of Trainees | | | | TOTAL |
|---|---|---|---|---|---|---|---|
| | | | 14-15 | | 15-16 | | |
| | | | Male | Female | Male | Female | |
| 1 | Security Guards Batch-I | Police Training School Valpoi | 403 | ----- | ------ | ----- | **403** |
| 2 | Security Guards Batch-II | Police Training School Valpoi | 367 | 101 | ------ | ------ | **468** |
| 3 | Security Guards | Police Training School Valpoi | ----- | 104 | ----- | ----- | **104** |
| 4 | Security Guards | Police Training School Valpoi | 11 | 18 | ------ | ------ | **29** |
| 5 | Security Guards | Indianeye , Belgaum | 286 | ---- | 378 | 119 | **783** |
| **6** | **TOTAL** | | **1067** | **223** | **378** | **119** | **1787** |

*(Source: Directorate of skill Development and Entrepreneurship)*

The TrCPC offers 3 trade which were considered for the study. A total number of 3919 trainees were enrolled for last 5 years (2011-12 to 2015-16) were taken as a total population for the study. The table 1.11 below shows the classification of the trainees;

**Table 1.11 Classification of trainees underTraining cum Production Centre.**

| Sr. No | Names of Trades | No. of Trainees | | | | | |
|---|---|---|---|---|---|---|---|
| | | 2011 | 2012 | 2013 | 2014 | 2015 | TOTAL |
| 1 | Tailoring and Embroidery | 1365 | 1593 | 540 | 113 | 285 | 3896 |
| 2 | Powerloom | --- | --- | --- | --- | 13 | 13 |
| 3 | Handloom Weaving | --- | --- | --- | --- | 10 | 10 |
| TOTAL | | 1365 | 1593 | 540 | 113 | 308 | 3919 |

*(Source: Directorate of Craftsmen Training)*

The Apprenticeship training offers 39 trades which were considered for the study. A total of 1486 trainees were enrolled for last 5 years (2011-12 to 2015-16) which were taken as a total population for the study. The table 1.12 below shows the classification of the trainees;

**Table 1.12 Classification of Apprentices/Trainees (trade wise)**

| Sr. No | Name of the Trades | No. of Trainees/Apprentices | | | | | |
|---|---|---|---|---|---|---|---|
| | | 11-12 | 12-13 | 13-14 | 14-15 | 15-16 | TOTAL |
| 1 | Fitter | 26 | 35 | 35 | 30 | 52 | 178 |
| 2 | Turner | - | - | 1 | - | - | 1 |
| 3 | Machinist | 9 | 5 | 4 | 4 | 14 | 36 |
| 4 | *Welder | 3 | 7 | 6 | 16 | 1 | 33 |
| 5 | Mechanic Diesel | 3 | 2 | 10 | 3 | 4 | 22 |
| 6 | Mechanic Motor Vehicle | 2 | 10 | 5 | 6 | 11 | 34 |
| 7 | *Electrician | 23 | 27 | 53 | 30 | 43 | 176 |
| 8 | Instrument Mechanic | 7 | 3 | 11 | 4 | 9 | 34 |
| 9 | Mechanic (RA C) | 9 | 8 | 16 | 15 | 16 | 64 |
| 10 | *Broiler Attendant | - | 1 | 4 | 2 | 3 | 10 |
| 11 | *Laboratory Assistant | 26 | 15 | 24 | 27 | 37 | 129 |
| 12 | Attendant Operator (Chemical) | 9 | 2 | 2 | - | - | 13 |
| 13 | Mechanic Electronics | 7 | 24 | 22 | 15 | 16 | 84 |
| 14 | Plumber | - | 2 | - | - | 1 | 3 |
| 15 | *Food Production | 28 | 31 | 33 | 38 | 27 | 157 |
| 16 | *Steward | 32 | 31 | 39 | 46 | 46 | 194 |
| 17 | *House Keeping | 19 | 7 | 11 | 10 | 13 | 60 |
| 18 | Draughtsman ( Civil) | - | 1 | - | - | 2 | 3 |
| 19 | Draughtsman ( Mechanical) | - | - | - | - | 1 | 1 |
| 20 | Carpenter | - | - | - | - | - | - |
| 21 | IT and ESM | - | 6 | 4 | 9 | 6 | 25 |
| 22 | Lineman/Wireman | - | 1 | 1 | - | 2 | 4 |
| 23 | Marine Diesel Engine Mechanic | - | - | - | - | - | - |
| 24 | Auto Electrician | - | - | - | - | 2 | 2 |
| 25 | Front Office Assistant / Receptionist | 6 | 3 | 5 | 9 | 2 | 25 |
| 26 | Health Slimming Assistant | - | - | - | - | - | - |
| 27 | PAASA | 10 | 5 | 19 | 5 | 21 | 60 |
| 28 | Desk Top Publishing Operator | - | 2 | - | 3 | - | 5 |
| 29 | Beautician | - | - | - | - | - | - |
| 30 | Mechanic Tractor | - | - | - | - | - | - |
| 31 | CNC Operator | 8 | 4 | 5 | 9 | 2 | 28 |
| 32 | *PLC System operator | 10 | 1 | 16 | 8 | 9 | 44 |
| 33 | CAD/CAM Operator | - | - | - | - | - | - |
| 34 | Mech. Automobile (Advance Petrol Engine) | 3 | | - | - | 3 | 6 |
| 35 | Mech. Automobile (Advance Diesel Engine) | 1 | 2 | 3 | - | 5 | 11 |
| 36 | COPA | 1 | 21 | - | - | 1 | 23 |
| 37 | Mech. Denting, painting and Welding | - | - | 3 | 6 | - | 9 |
| 38 | Bakery and Confectionery | - | - | 1 | - | 1 | 2 |
| 39 | Tig/Mig Welder | - | - | 2 | 5 | 3 | 10 |
| TOTAL | | 242 | 256 | 335 | 300 | 353 | 1486 |

*(Source: Directorate of Craftsmen Training (Apprenticeship)*

The various Government departments are involved in offering OITSG out of which six departments were considered for the study who are involved in skill development programmes. A total of 2083 trainees were enrolled for last 5 years (2011-12 to 2015-16) were taken as a total population for the study. The table 1.13 below shows the classification of the trainees;

**Table No. 1.13 Classification of trainees under other initiatives taken by the Government**

| Sr. No | Names of Trades | No. of Trainees | | | | | |
|---|---|---|---|---|---|---|---|
| | | 11-12 | 12-13 | 13-14 | 14-15 | 15-16 | TOTAL |
| 1 | Dir. of Agriculture | -- | 257 | 582 | -- | 265 | 1104 |
| 2 | Dir. of Fisheries | 82 | 96 | 82 | 132 | 120 | 512 |
| 3 | Dir. of Tourism | -- | -- | -- | 10 | -- | 10 |
| 4 | Dir. of Animal Husbandry | 24 | 39 | 31 | 20 | 28 | 142 |
| 5 | Dir. of IT | 03 | 05 | 02 | 03 | 03 | 16 |
| 6 | Dir. of Urban Development | -- | 40 | 40 | 80 | 139 | 299 |
| Total | | 109 | 437 | 737 | 245 | 555 | 2083 |

*(Source: Directorate of Agriculture, Fisheries, Tourism, Animal Husbandry, IT and Urban Development)*

From the data cited above, table 1.14 shows the summary of ongoing students collected for the study based on ten streams. The required sample size is 370 (5000 to 10,000 population) based on Salant and Dillman method at 5% error 50/50 split (370/9898*100 = 3.74%). But, the actual sample collected was 503 which is more than the required sample.

**Table 1.14 Summary of Ongoing Students collected (Stream wise)**

| Sr.No | Institutions/ Industries | Actual No. of Present students | No. of present Students selected | No. of present students collected | Excess (+) Deficit (─) |
|---|---|---|---|---|---|
| 1 | Sch | 516 | 21 | 45 | +24 |
| 2 | VS | 2659 | 100 | 125 | +25 |
| 3 | UNID | 180 | 8 | 35 | +27 |
| 4 | ITI's | 3398 | 127 | 130 | +3 |
| 5 | HRDFS | 1005 | 39 | 56 | +17 |
| 6 | *EDP | 178 | 7 | 12 | +5 |
| 7 | GHRSDC | 497 | 19 | 21 | +2 |
| 8 | TrCPC | 308 | 12 | 21 | +9 |
| 9 | ApprT | 353 | 16 | 28 | +12 |
| 10 | OITSG | 555 | 21 | 30 | +9 |
| | TOTAL STUDENTS | 9898 | 370 (3.74%) | 503 | +133 |

The below table 1.15 shows the summary of Ongoing students collected for the study based on 41 trades from 10 different streams.

**Table 1.15 Summary of Ongoing Students Collected (Trade Wise)**

| Sr.No | Institutions/ Industries | No. of  present students collected |
|---|---|---|
| 1 | **HS (NSQF)** | |
| I | IT | 16 |
| II | Automobile | 24 |
| III | Retail | 05 |
| | **Total** | **45** |
| 2 | **HSSC (VS)** | |
| I | CRM | 11 |
| II | OSS | 15 |
| III | Auto Engineering Technology | 19 |
| IV | Commercial Garments | 18 |
| V | Insurance | 12 |
| VI | Auditing and Accounting | 10 |
| VII | Computer Techniques | 20 |
| VIII | MREEDA | 20 |
| | **Total** | **125** |
| 3 | **UNID** | |
| I | MCA | 24 |
| II | MFS | 11 |
| | **Total** | **35** |
| 4 | **ITI's** | |
| I | Electrician | 08 |
| II | COPA | 18 |
| III | Plumber | 24 |
| IV | Welder | 16 |
| V | Fitter | 23 |
| VI | Diesel Mechanic | 20 |
| VII | Hospitality Management | 17 |
| VIII | Electronics | 04 |
| | **Total** | **130** |
| 5 | **HRDFS** | |
| I | Computer Application | 10 |
| II | Business Application | 10 |
| III | DTPO | 10 |
| IV | Home Nursing | 10 |
| V | Air condition | 09 |
| VI | Beautician | 07 |
| | **Total** | **56** |
| 6 | **EDP** | **12** |
| | | |
| 7 | **GHRSDC** | **21** |
| | | |
| 8 | **TrCPC** | **21** |
| | | |
| 9 | **APPRENTICESHIP TRAINING** | |
| I | Welder | 3 |
| II | Fitter | 5 |
| III | Diesel Mechanic | 3 |
| IV | Electrician | 6 |
| V | Lab Assistant | 2 |
| VI | Electronic Mechanic | 3 |
| VII | Plumber | 2 |
| VIII | CNC Operator | 4 |
| | **Total** | **28** |
| 10 | **OITSG** | |
| I | Agriculture | 10 |
| II | Animal Husbandry | 10 |
| III | Urban development | 10 |
| | **Total** | **30** |
| | **Grand Total (1-10)** | **503** |

The table 1.16 shows the summary of Past students collected for the study based on 10 streams. The required sample size is 383 from (25,000 to 1,00,000 population) based on Salant and Dillman at 5% error 50/50 split is 383 (383/37553*100 =1.02%.)**.** But, the actual sample collected was 624 which is more than the required sample.

**Table 1.16 Summary of Past Students Collected (Stream wise)**

| Sr.No | Institutions/ Industries | Actual No. of Past students ( 4 years) | No. of past Students selected | No. of past students collected | Excess (+) Deficit (—) |
|-------|--------------------------|----------------------------------------|-------------------------------|--------------------------------|------------------------|
| 1 | Sch | **684** | 7 | **33** | +26 |
| 2 | VS | **10513** | 107 | **173** | +66 |
| 3 | UNID | **570** | 6 | **25** | +19 |
| 4 | ITI's | **13227** | 134 | **157** | +23 |
| 5 | HRDFS | **4424** | 45 | **67** | +22 |
| 6 | *EDP | **573** | 6 | **8** | +2 |
| 7 | GHRSDC | **1290** | 13 | **25** | +12 |
| 8 | TrCPC | **3611** | 37 | **38** | +1 |
| 9 | ApprT | **1133** | 12 | **38** | +26 |
| 10 | *OITSG | **1528** | 16 | **60** | +44 |
| **TOTAL** | | **37553** | **383(1.02%)** | **624** | **+241** |

The below table 1.17 shows the summary of Past students collected for the study based on 43 trades from 10 different streams.

**Table 1.17 Summary of past students (course wise)**

| Sr.No | Institutions/ Industries | No. of present students collected |
|-------|--------------------------|-----------------------------------|
| **1** | **HS (NSQF)** | |
| I | IT | 12 |
| II | Healthcare | 08 |
| II | Automobile | 08 |
| III | Retail | 05 |
| | **Total** | **33** |
| | | |
| **2** | **HSSC (VS)** | |
| I | CRM | 16 |
| II | OSS | 36 |
| III | Auto Engineering Technology | 16 |
| IV | Commercial Garments | 12 |
| V | Insurance | 36 |
| VI | Auditing and Accounting | 10 |
| VII | Marketing and Salesmanship | 07 |
| VIII | Computer Techniques | 28 |
| IX | Travel and Tourism | 12 |
| | **Total** | **173** |
| | | |
| **3** | **UNID** | |
| I | MFS | 11 |
| II | MCA | 14 |
| | **Total** | **25** |
| | | |
| **4** | **ITI's** | |
| I | Electrician | 17 |
| II | COPA | 11 |
| III | Plumber | 40 |
| IV | Welder (COE) | 12 |
| V | Fitter | 15 |
| VI | Diesel Mechanic | 14 |
| VII | Hotel management | 32 |
| VIII | Electronics | 16 |
| | **Total** | **157** |

| | | | |
|---|---|---|---|
| **5** | **HRDFS** | | |
| I | Computer Application | 10 | |
| II | Business Application | 13 | |
| III | DTPO | 17 | |
| IV | Home Nursing | 10 | |
| V | Air condition/refrigerator | 09 | |
| VI | Beautician | 08 | |
| | **Total** | **67** | |
| | | | |
| **6** | **EDP** | **08** | |
| | | | |
| **7** | **GHRSDC** | **25** | |
| | | | |
| **8** | **TrCPC** | **38** | |
| | | | |
| **9** | **APPRENTICESHIP TRAINING** | | |
| I | Diesel Mechanic | 2 | |
| II | Welder | 4 | |
| III | Electrician | 5 | |
| IV | Lab Assistant | 7 | |
| V | CNC Operator | 9 | |
| VI | PLC Operator | 5 | |
| VII | Hotel Management | 4 | |
| VIII | Fitter | 2 | |
| | **Total** | **38** | |
| **10** | **OITSG** | | |
| I | Agriculture | 20 | |
| II | Animal Husbandry | 20 | |
| III | Urban development | 20 | |
| | **Total** | **60** | |
| | **Grand Total (1-10)** | **624** | |

## 1.7.4.3 Selection of Training Industries

Industrial units and Start-up companies engaged in training were selected for the study for last 5 years from the state of Goa. Dexter's Report 2013 shows that there are **7,813** units in the State of Goa which consist of **4754** units (i.e. 4,654 (SSI) and 100 (L&MS) units) are located in North Goa District and **3059** units (i.e. 2967 (SSI) and 92 (L&MS) units) are located in South Goa. Only few industries are identified by the Directorate of Craftsmen training that offers apprenticeship training in the state of Goa. The below table 1.18 shows taluka wise industries offering apprenticeship training;

**Table 1.18 Classification of Industries under Apprenticeship training**

| Sr.No. | Taluka | No. of Institute under Apprenticeship Training in the state | No. of industrial units Offering Apprenticeship training in the state |
|---|---|---|---|
| 1 | Pernem | 0 | 0 |
| 2 | Bardez | 18 | 18 |
| 3 | Tiswadi | 14 | 14 |
| 4 | Bicholim | 9 | 9 |
| 5 | Sattari | 1 | 1 |
| 6 | Ponda | 13 | 13 |
| **Total North** | | **55** | **55** |
| 7 | Salcete | 32 | 32 |
| 8 | Quepem | 1 | 1 |
| 9 | Mormugao | 6 | 6 |
| 10 | Sanguem | 0 | 0 |
| 11 | Dharbandora | 0 | 0 |
| 12 | Canacona | 1 | 1 |
| **Total South** | | **40** | **40** |
| **TOTAL** | | **95** | **95 (100%)** |

The below table 1.19 shows taluka wise Start-up Companies engaged in skill training programmes;

**Table No. 1.19 Classification of Start-up Companies**

| Sr. No. | Taluka | No. of Start-Up Companies in the state | No. of Start-Up Companies offer Training |
|---------|--------|----------------------------------------|------------------------------------------|
| **Total North** | | **00** | **0 (0%)** |
| 1 | GITIC | 17 | 17 |
| 2 | CIBA | 46 | 46 |
| 3 | MANOVIKAS | 07 | 07 |
| 4 | BITS | 09 | 09 |
| 5 | GEMS | 0 | 0 |
| **Total South** | | **79** | **79** |
| **TOTAL** | | **79** | **79** |

*(Source: Incubation Centres)*

Only those industries which accept apprentices for training in their units under Apprenticeship training through Directorate of Craftsmen Training were only considered for the study. Out of 95 industrial units 40 units (i.e. 42%) were selected for the study from north and south district of Goa for last 5 years. So also start-up companies from different incubation training centers were selected for the study. There are 5 incubation centres in Goa namely GITIC, CIBA, MANOVIKAS, BITS Pillani and GEMS. Out of the 5 Incubators 3 centres were selected and the sample respondents were collected from those incubations centres to serve the purpose namely GITIC, CIBA and MANOVIKAS.

**1.7.4.4 Summary of Industries Collected (Appenticeship and Start-Up Companies)**

The below table 1.20 shows the summary of Industries and Start-up Companies selected for the study based on Salant and Dillman method at 10% error, 50/50 split which is upto 250 population the sample size can be considered as 70, (70/174*100 =40%)**.**

**Table No. 1.20 Selection of sample respondents (Industrialist/Start-up companies)**

| Sr. No (1) | Industries (2) | Actual No. of Industries located (3) | Actual No. of Industries involved in training (4) | Total No. of Industries Selected (5) | No. of industries collected (6) | Access (+) Deficit (─) |
|------------|----------------|--------------------------------------|---------------------------------------------------|--------------------------------------|---------------------------------|------------------------|
| 11 | Industries | 901 | 95 | 38 | **40** | +2 |
| 12 | Start-ups | 79 | 79 | 32 | **32** | -- |
| **Total Units** | | **980** | **174** | **70 (40%)** | **72** | **+2** |

**1.8 Secondary Data**

The secondary data was collected from books, magazines, reports, government departments, Websites, Educational institutions, various government Directorates, etc.

**1.9 Significance of the study**

1. The study will help to identify the number of educational institutions practicing skill development programmes in Goa and accordingly implement required courses in the institution.

2. It will help the educational departments to take suitable measures to introduce necessary programmes for the students at various levels to control drop-out rates.

3. The study will help the various training institutes and directorates to introduce different types of skill development courses in the state.

4. It will help various stakeholders, industries and sectors to impart training for their employees to upgrade their skills and to improve their productivity.

**1.10 Statistical Tools and Techniques**

The data collected was analyzed by using suitable statistical technique such as Descriptive statistics, Cross tabulation, Independent Sample t-test, ANOVA test, Multinomial Logistic Regression, Pearson's Coefficients, Chi-square test, Post Hoc test, etc. The statistical package used to analyze the data was SPSS.

**1.11 Limitations of the Study**

1. The data of students was collected from 10 different streams of imparting skills in Goa from high school level to university. The uneducated trainees from TrCPC, OITSG and other streams were considered for the study so the questionnaire was made as simple as possible to their level of understanding and at the same time to serve the purpose of study.

2. Some of the students could not fill the questionnaire properly whereby those questionnaires were discarded and not included in the statistical data.

3. HR mangers of industries were reluctant to provide required information as they took long time to supply required information through questionnaire and even some managers refused to give information.

4. The study is limited to only 10 streams, 41 trades for ongoing students and 43 trades for past students.

**1.12 Chapterization Scheme**

**Chapter I: Introduction**

The first chapter "Introduction" deals with overall introduction of skill development at national and at the state level. It consist of background, skill development status in India, skill development scenario in the state of Goa, problem of the study, Objectives, Hypothesis, Sample size, Research methodology, research techniques for data analysis and limitations of the study.

**Chapter II: Literature Review**

The second chapter covers review of literature in this regard. The chapter covers reviews from research articles, journals, books, M.Phil dissertations, PhD Thesis and internet sources.

**Chapter III: Skill development programmes: An overview**

The third chapter covers different skill development programmes undertaken in a sample area. It includes the basics of skill development in the sample area as well as in India. It is just an overview and present status of skill Development programmes based on institutions, trades and enrolment of students in the state of Goa.

**Chapter IV: Perspectives of Institutional Heads for Skill Development Programmes in the State.**

The fourth chapter covers different skill development programmes undertaken in a sample area. It includes information about skill providers and training institutions are covered in this chapter. It also includes the detailed profile of skill development programmes and data of HODs divided the basis of gender, locality, district, talukas and streams. The collected data is tested with the help of various statistical tools.

**Chapter V: Attitude of ongoing students towards facilities available and curriculum.**

The fifth chapter includes the attitude of ongoing students towards facilities available and curriculum framed by the respective authority for skill development programmes in the state of Goa. It covers the opinions given by the ongoing students regarding skill development programmes based on gender, district, talukas, streams and trades in Goa.

**Chapter VI: Skill Development Programmes and its impact on Employment and self Employment.**

The sixth chapter covers the different skill development programmes and its impact on employment and self- employment. It covers the views of past students regarding skill development programmes and its impact on the status of past students.

**Chapter VII: Gap of human resources and perceptions of skill development programmes.**

This chapter deals with the perception of industrialists, HR executives towards skill gap and also all stakeholders including institutional heads, present students, past students and industrialist regarding skill development programmes in the state of Goa.

**Chapter VIII: Summary, Findings, Conclusion and Suggestions.**

This chapter has covered Major findings of the study, Conclusion, policy alternatives and Recommendations for future Study and suggestive models for the better functioning of skill development programmes.

**1.13 Conclusion:**

This chapter has been set into parts i.e. introduction and research methodology. The researcher has made the chapterization scheme to go through the various aspects of the Skill Development Programmes and to find impact on employment and self employment. For the study of skill development programmes the researcher has used various criteria to evaluate the impact on employment and self employment i.e. HOD, Present Students, Past students and Industrialists. Accordingly the researcher has collected the views from the HOD, Present Students, Past students and Industrialists. As per the scope of the study, the study has restricted up to the state of Goa only. In this chapter, researcher has concentrated on the research methodology of the present study and explained in detail about the objectives, scope of the study, problems to be studied and limitation of the study. It is also explains the total population for the present study and the methods used for sampling purpose. Researcher has also explained the methods used for collection of primary and secondary data by using various statistical tools for the purpose of analyzing the data.

*******

**2.1 Introduction:**

The growing need for skilled manpower and self- reliant through proper educational system is very much necessary for the development of the country. To tackle such issue a variety of research and training activities have been carried out at International, National to tackle various problems and to find solution for the problem. After going through the various articles and papers published at national and international journals, the researcher could collect some relevant information on the present research topic entitled *"An evaluation of Skill Development Programmes and its impact on Employment and Self-Employment: A study with reference to state of Goa".* The present study on skill development programmes is different from other research for which an attempt is made to examine the different aspects of the studies conducted on skill development programmes for the benefit of the students, institutions, educational authority and society for the overall development of economy. A review of various available literatures on education, employment, self-employment, vocational and skill development were necessary and helpful to find the limitation of the previous studies conducted by the researchers. Such a good review and research will give strong indications to future introduction and implementation of skill policies at central and state level to the Ministry of Skill Development. The collected information has been organized and summarized under subtitles like education, employment, self-employment and skill development.

**2.2 Review:**

The various available items of literature are reviewed below;

**2.2.1 Education:**

1. ***Abelmann (2001), Levy and Murnane (2001),*** state that the curriculum of Indian educational system, particularly at the secondary level, represents a vision of what India wishes to be through vocational training in the Higher Secondary Schools. Secondary education is where they prepare students both for higher education as well as for world of work. The study concludes that Secondary School Curriculum today in many countries including India, by both adults and young people share a feeling that the secondary education curriculum is profoundly inadequate and doesn't meet the expectations of the employers and the industrialist at the work place. It is need to implement proper system of skill education especially at secondary level as well as at other levels of education to prepare youth ready for work.

2. *Vir (1988),* mention that the educational system was based on Hindu and Buddhist philosophy but Education was not vocational in character. In Hindu *Varna* system, vocations such as metal-works, leather crafts and tailoring work were considered as the work of low caste people. Sanskrit education was based on the *Veda* and Hindu classics for proficiency in Sanskrit grammar, literature, astronomy, while Buddhist monastery schools (*Gombas*) placed emphasis on the practice of rituals, meditation and a high proficiency in mathematics. Sanskrit schools (*Pathasala*) were opened for the higher caste Hindus, whereas Buddhist *Gombas* were more liberal and open to all.

### 2.2.2 Self-Employment:

3. *Cheng (1997),* Accumulated human capital in self-employment or reduced job satisfaction in employment may lead some to switch out of self-employment into regular employment and then back again to self-employment. He also argued that having a self-employed father was the overriding predictor for entering self-employment in 20th century Japan.

4. *Cheng (1997), Blanchflower (2000),* learnt that education (knowledge) can be a determinant for career switches. Research on the relationship between self-employment and education has produced ambiguous results and also differ for men and women. The study concludes that less education may limit job choices in employment, whereas more education increases options as well as salary levels in employment. More education may be associated with greater success in self-employment, especially in high technology entrepreneurial sectors or professions such as law, medicine, or consultancy.

5. *Jess Diamond and Ulrike Schaede (2013),* observed that the most persistent findings in the previous studies is that switching across job categories remains limited. While Japan's labour market remains very sticky, in some sense there is perhaps more switching than one might have thought. They were likely to enter self-employment in bad economic times, and they were older. These results may favour the 'push' notion of an involuntary entry into self-employment due to limited options. Growing up in a household where the father was self-employed greatly increased the likelihood for the son to be self-employed.

6. ***Robinson and Sexton (1994), Lazear (2004):*** propose that a 'jack-of-all-trades' makes for a more successful entrepreneur, and generalized human capital formation is the recommended strategy. Such generalized knowledge can be acquired not just through education but also through past experience, either in self-employment or through rotations while in regular employment.

### 2.2.3 Vocational Training Programmes:

7. ***Anton Nivorozhkin (2005),*** the study discusses about government sponsored vocational training programmes and retraining to improve skills on the job. The study found that Government sponsored vocational training does not necessarily imply that training programmes are effective policy tools, as the data does not allow the calculation of any general equilibrium effects. The study concludes that re-training programmes may take time; hence it may appear that those who were not trained obtained a job faster. Once the technical and work organizational aspects of the production process are translated into a range of skills, it is possible to scale the skills according to basic, intermediate and advanced skills.

8. ***Berger et al. (2001),*** the study was conducted to find the effect of on-the-job training on wages earned by the workers. The study concluded that on-the-job training increased wages by 35.5%, considerably more than found here, perhaps because of differences in the construction of the samples and different periods studied.

9. ***Berger et al. (2001),*** investigated the effect of vocational training and retraining in Russia by using the Russian Longitudinal Monitoring Survey (RLMS) database. The construction of the dataset did not permit the authors to conduct a separate analysis for unemployed individuals, nor did the paper address the question of causality in outcomes. The author found that training in fields other than the previous primary occupation promoted mobility and contributed positively to wage growth. However, additional training in the primary occupation had a negative impact on labour. Thus the authors suggested that retraining contributes to a labour reallocation to more productive sectors of the economy, whereas additional training may just maintain workers in the current inefficient sector.

10. *Baker (2000),* discusses the design and implementation of the evaluations of various social programmes, including poverty-reduction, schooling, ALMP, etc. The major findings of the study is that the results of implementing various programmes are largely dependent on the institutional settings of the analyzed country, and monitoring of programmes, implementation coupled with new methods for analysis of programmes outcome needs to be widely applied in order to make rigorous statements about the effect and effectiveness of social programmes.

11. *Evans and Leighton (1990),* in his study on unemployment found that in USA the unemployed are twice as likely to start a company as wage-employed people. Several sectoral and regional analyses determined that this so-called "unemployment push" effect is not as robust as expected.

12. *Friedlander et al. (1997),* conducted a study in the United States to review the evaluations of US-government training programmes and the general conclusion is that there were significant positive effects of training programmes on adults as community programmes but only youth programmes consistently produced negative effect and did not create much impact on youth.

13. *Lechner (2000),* a study was carried out in East Germany to evaluate public-sponsored continuous vocational-training programmes in after unification, investigating the earnings and employment effects of participation. The study concludes that no positive effect was found, at least in the short run. This unsatisfactory performance might be explained by either the low quality of the programmes itself or stigmatization of the programmes participants. At the same time, Government-sponsored vocational training in urban Russia where large spending on ALMP might be justified by the need to create an infrastructure for training and retraining programmes in the future.

14. *Lehmann (1995),* a study was conducted in countries like Czech Republic, Poland and Hungary to find the rate of unemployment in the concern countries. The main conclusion of the study is that ALMP contributed only marginally to lowering the unemployment rate in the Czech Republic. For Hungary and Poland, he identified a problematic group of older and less educated participants.

15. *Puhani and Steiner (1997),* a study was conducted to know the efficiency of various programmes conducted for unemployed youth. The study suggested an alternative explanation for the results of Polish ALMP. They indicate that many programmes for unemployed were not efficiently targeted. Moreover, programmes such as subsidized employment and public works may be beneficial for the long-term unemployed, since one of their aims is to reduce poverty and help unemployed individuals to maintain a link to the labour market.

**2.2.4 Skill Development Programmes:**

16. *Castro (1988); Hoppers and Komba (1996),* States that education is commonly referred to activities aimed at acquiring general knowledge, attitudes and values. The term, 'training' basically means the acquisition of occupational or job-related skills, the division needs to be seen as a purely analytical one, as the two are interrelated dimensions within the domain of learning.

17. *Baumol (1990), Santarelli and Vivarelli (2002),* the study focuses on the impact of skill training on firms entry and various policies of entrepreneurship. The study claims that there is no effect of training on firm entry but entrepreneurship support policies (e.g., training) are particularly useful when entrepreneurs lack the relevant skills or knowledge. While priority is being given to Education at the basic level. They observed that little attention is provided to the articulation between education, skills development and entry into the labour market.

18. *UNESCO Global Monitoring Report (2002),* highlights that the six Dakar Goals have included the Goal of ensuring that the learning needs of all young people and adults are met through equitable access to appropriate learning and life skills programs.

19. *Kafka and Stephenson (2006),* the study was conducted to find the impact of skill programmes on different types of skills like attitudinal and behavioural skills. The study concludes that skill Programmes are needed to impart proper attitudinal and behavioural skills for young people, so that they see agricultural production and services in a positive way as having the potential to provide a decent living.

20. *Pai, Mahesh and De'Souza (2009),* pointed out that employment and employability is not the same thing. Being employed means having a job. For a youth or adult who is not adequately prepared, having a job is likely to be a temporary condition. Being employable means possessing qualities needed to maintain employment but employability skills are not only job specific but are skills, which cut horizontally across all industries and vertically across all jobs from entry level to higher level. Employability skill is the attribute of employee other than technical competence that make them asset to the employer.

21. *Patil and Arolkar (2010),* an article elaborates the gap between industry and academia in the state of Goa. It is suggested in their research article that effective and meaningful interface between industry and academia will be of immense help to mount the gap of theory and practice. Through a fruitful deliberation at regular intervals and reducing the reservation will help in deriving a close nexus between industry and academia.

22. *Robert L. Gustavson (1997),* conducted a survey to study on the topic "An Economic Analysis of The Federal Job Opportunities and Basic Skills (JOBS) Education and Training Programs in Kansas" for which three Major Metropolitan areas were taken for research. A sample of 360 trainees that is 120 trainees each from 3 metropolitan area offices such as Topeka, Olathe and Wichita were considered for survey. The objective of the study was to find job skill programmes and impact on job readiness and self- reliance or self-employability. The study concludes that there is a significant correlation between job opportunities and basic skills, job opportunities and skills programmes, skill programmes and job readiness, skill programmes and self-reliance.

23. *Sandeep Mohapatra, Scott Rozelle and Rachael Goodhue (2006),* in their research paper on "The Rise of Self-Employment in Rural China: Development or Distress? Conducted in China of 60 villages consisted of 1199 household to find whether entrepreneurship promoted through self-employment is a sign of development or distress. They concluded with evidence showing that self-employment in China, unlike in some other places has made sustainable development in the various region of China.

24. *Jawad Syed (2007),* the author made an attempt to find different factors affecting migrants workers for employment prospects in his paper titled "Employment prospects for skilled migrants: A relational perspective" which was conducted in Australia. The important factors taken for study at Micro level which affects individual are opportunities abroad, motivational, career, personal development, financial gain, identity, lifestyle, etc. and at macro level that affects organization are policy and practices, resources, structure and working condition. The study concludes that greater the possessibility of skills which workers enjoys the better will be the mobility and job. If the workers who are highly skilled workers can move to any part of the country and they can get better job.

25. *Zuzana Brixiova, Wenli Li and Tarik Yousef (2008),* examined in their paper "Skill shortages and labor market outcomes in Central Europe" conducted in European country) concludes that the significant factors which has affected low employment rates and high recession in European countries was mainly due to lower participation of unskilled workers rather than skilled workers on employment. So it is a negative impact of unskilled workers for not participating on employment which creates recession in European countries rather than skilled workers.

26. *Andre and Varella mollick (2008),* a study was conducted in Mexican country to check the impact on peso on skilled workers and unskilled workers. It is observed in their study that employment responses of skilled and unskilled workers at Mexican maquiladoras, the effects of external factors" that unskilled workers are more affected than skilled workers when the peso weakens and the price of skilled labor rises.

27. *A.J. Wilson, B. Ahmad Ariffian and Abu Zarin H. (2012),* conducted a study on "The Acquisition of Soft Skills in Real Estate Program via Industrial Training" in Malaysia. A sample of 200 graduates of the real estate programme of public universities was considered in order to know the level of skills acquired by the university students. The main objective of the study is to examine the acquisition of the soft skills embedded in real estate program through industrial training at degree programme. The soft skills taken for study were Communication skills,

Critical thinking and problem solving skill, Team working skill, lifelong learning and information management skill, Entrepreneurial skill, Moral and professional ethics skill and leadership skill. The study Concludes that soft skills infused for industrial training has not met the needs of the graduates, with the exemption for a few skills competencies such moral and professional skills, lifelong learning and information management skills, and teamwork skills.

28. ***Shazaitul Azreen Rodzalan and Maisarah Mohamed Saat (2012),*** conducted a study on the effects of Industrial Training on students' Generic Skills Development to examine the effect of individual and organizational characteristics on generic skills Generic Skills- like Communication skills, Teamwork skills, Critical thinking and problem solving skills, and Professional skills whereby 4 skills were considered for study. It is concluded that there is a significant relation between individual and organizational characteristics with generic skills development among students.

29. ***Erika Quendler, Jannie Van Der Luit, et.al.(2013),*** a study was conducted in Europe on the topic Employers' needs on competences, knowledge and skills for sustainable development as a reference framework for higher education in life sciences. A sample of 2937 students and 852 academicians were chosen for the study. Techniques like Chi-Square test, Descriptive Statistics, Correlation Coefficient were used for testing hypothesis. The broad objective of the study was to study importance of the competences, knowledge and skills required by employees for sustainable development in European countries. The various variables taken into consideration were skill development knowledge, skill development skills and skill development competency. The Skill Development knowledge includes Environment, Efficiency, Natural resources and Biodiversity, Ecosystem, Ecological Integrity, Principles of natural system, Social Responsibility, Environmental Management System, Ecological Economics, Economics, Eco system services, supply chain, Value chains, Externalities, Globalization, GNP, etc. The Skill Development Skills includes Efficiency, leadership, sustainability planning, communication, analysis of environmental problems, system thinking, influencing the organization, designing sustainable system, life cycle analysis, indicators and indexes, ecological foot print, full cost

accounting, business case, socially responsible investing, economic restructuring, pollution prevention programme, pollution trading, 4 p's cap and trade. The Skill Development competences include social responsibility, system orientation and future orientation. The study concludes that the correct combination of competence, knowledge and skills for sustainable development are the best guarantee of our ability to sustain in our life, competent market and secure lasting prosperity.

30. *Yahya Buntat, M.Khata, et.al. (2013)*, conducted a research in Malaysia on the topic Employability Skills Element's: Difference Perspective between Teaching staff and Employers Industrial in Malaysia. The Sample size was 130 teaching staff and 152 industry employer. The technique used for testing and evaluation was descriptive statistics. The main objective of the study was to identify Employability Skills integrated by the teaching staff of agricultural vocational training institutions and employability skills needed by the employer in the industry. Employability Skills (ES) were divided into technical expertise or "hard skills", and "employability skills" or "soft skills". ES are only taken for study on teaching Staff who were co-operating with others, working in a team, possessing honesty, following instructions given, interacting with others, acting positively toward change and helping for Solving problems. ES for employer were possessing honesty, cooperating with others, using technology instrument and information system effectively, making decisions, managing time, work in a team, acting positively toward change. The study concludes that cooperating with others and possessing honesty ranked first by teaching staff and employer respectively.

31. *Edge-okpenge and enechojo grace (2013),* conducted a research on Relationship between Counseling and Entrepreneurship Development Skills of Nigerian in Nigeria. The Sample size was 400 final year UG students. To test hypothesis technique like t-test and correlation were used. The objective of the study was to investigate the relationship between career counseling and entrepreneurship development skills of final year students. The conclusion drawn from the study was Career counseling plays a key role in entrepreneurship development of final year students. There is a significant difference between male and female in the relationship between career counseling and entrepreneurship development skills.

32. ***Janice S Tripney and Jorge G Hombrados (2013),*** a research conducted on the topic "Technical and vocational education and training (TVET) for young people in low- and middle income countries: a systematic review and meta-analysis". The researcher examined the evidence from studies evaluating the impacts of TVET interventions for young people in low- and middle income countries (LMICs) predominantly from Latin America. Meta-analyses of the effectiveness of TVET on five outcome measure categories were conducted. The study concludes that overall mean effects on overall paid employment, formal employment, and monthly earnings were small, positive, and significant. However, significant heterogeneity was observed among the categories.

33. ***Dexter's Report (2013),*** a study conducted in the state of Goa which was sponsored by department of skill development. The main objectives of the study to evaluate Socio-economic profile – demography, economic profile of district by industry, state of education, to identifying developmental opportunities keeping in mind factor endowments and stakeholder perspectives, to identifying specific developmental initiatives/projects/government schemes which have an impact on employment generation, to articulating the aspirations of the youth, to identifying the current and future (2012-17 to 2017-22) skills and human resource requirements by industry and estimate the gap that exists, and to Study the existing VT infrastructure both in the private sector and the government domain. The researcher found that there is a high impact of skill development programmes on employment but it is not properly implemented in the state of Goa.

**2.2.5 PhD thesis:**

34. ***Binod Kumar Khadria, (1982),*** in his thesis on the topic "Determinants of Skill Formation: An analysis in terms of interaction between Education market and the rest of the Economy" submitted to Jawaharlal Nehru University, New Delhi, concluded that on the job training, training provided for price and non-profit making institutions are the key agents of skill formation. Investment, cost and benefit are the main determining factors which plays an important role in skill formation by private as well as public agents.

35. *Sonia Torcato (2006),* in her study conducted in Goa submitted a thesis to the Goa University on the topic "A study of Vocational education Programmes and its impact on Entrepreneurship Development and Employment opportunities in Goa". The study was conducted in the state of Goa and the information was gathered from different Higher Secondary Schoolas and Colleges located in various talukas and villages in Goa. The information collected was analyzed with the help of mean and percentage mehod. The study concluded that the majority of HSS and College Students (40.9% and 61.8% respectively) were employed and only few (10% and 6.9% in HSS and UG) started their own business. It gives a clear indication that most of students passed from vocational studies are employed. It also shows that college students are more employed on the job as compared to Higher Secondary School students. VEP played a positive role in providing employment and self-employment to the youth in Goa. The status of VEP was found to be satisfactory with regards to infrastructure, Faculty, OJT and Syllabus. The author suggested that more importance should be given to OJT to commerce based general stream and commerce based vocational stream.

36. *Pushpa Mariyam (2006),* in his study a survey of 840 pupils of VIII, IX and X std. was carried out in Kottayam to submit a thesis to Mahatma Gandhi University, Kottayam on the topic "A study of group difference in computational skills of Secondary School Students". The main objective of the study was to find is there any group difference between skills Variable and independent variables. The skills variable (Dependent variables) considered were computational skills variable (additions, subtractions, multiplication, divisions (whole number, fraction, decimals), and Computational power variables (whole number, fraction, decimals). The independent variables considered were Intelligence, Achievements, Gender, Socio-Economic Status, and Locality. The study concludes that there exists difference between independent variables and dependent variable and also within dependent variables.

**2.3 Research Gap:**

A number of literatures on Education, Employment, Vocational Studies and Skill Development programmes have been reviewed for the purpose of study to find research conducted in the area of Skill Development. The previous studies has focused on various issues like articulation between education, skills development and entry into the labour market (Baumol, 1990; Santarelli and Vivarelli, 2002), attitudinal and behaviour skills (Kafka and Stephenson (2006), Computational skills for Secondary School Students (Pushpa Mariyam, 2006), Relation between Job Opportunities and Basic Skills (Robert L. Gustavson, 1997), Prospects for Skilled Migrants (Jawad Syed, 2007), Skill shortages and labor market (Zuzana Brixiova et. al., 2008), Acquisition of Soft Skills (A.J. Wilson et. al., 2012), Generic Skills Development (Shazaitul et.al., 2012), Competences, knowledge and skills (Erika Quendler et.al., 2013), Relationship Between Counseling And Entrepreneurship Development (Edge-okpenge and Enechojo Grace, 2013), Employment and Employability (Pai, Mahesh and De'Souza, 2009), Employability Skills (Yahya Buntat et.al., 2013), Investment, cost and benefit in skill formation (Binod Kumar Khadria, 1982), interface between Industry and Academia (Patil and Arolkar, 2010), reduced job satisfaction leads to self-employmnet (Cheng, 1997), Effect of self Employment (Sandeep Mohapatra, et.al., 2006), relationship between Education and Employment (Cheng, 1997, Blanchflower, 2000), reasons for switching of job into Self-Employment (Jess Diamond and Ulrike Schaede, 2013), unemployment push (Evans and Leighton, 1990), impact of recession on Employment (Andre and Varella Mollick, 2008), effects of Training Programmes (Friedlander et al., 1997), solutions to lower Unemployment (Lehmann, 1995), Subsidized Employment Programmes to lower poverty and Poverty and Unemployment (Puhani and Steiner, 1997), effect and quality of Vocational-Training Programmes (Lechner, 2000), impact of Vocational Education Programmes (Sonia Torcato, 2006), Technical and Vocational Education and Training (Janice S Tripney and J. G. Hombrados, 2013), Evaluations of various Social Programmes (Baker, 2000), and impact of on-the-job training on wages (Berger et al., 2001). A number of literatures on Education, Employment, Vocational Studies and Skill Development programmes have reviewed for the purpose of study to find research conducted in the area of skill development.

Although several research are being conducted on the various topics like Secondary Education for Youth and Adults, Education and Employment for youth, Education and Self-Employment for men and women, Vocational Education for youth, Employment and Employability for youth and adults, etc. which are closely related to the present study. Most of the research concentrated on High School and Secondary Schools children pertaining to Vocational Programmes on computational skills, soft skills, based on different skills

The above studies did not focus much on Skill Development Programmes like evaluating or comparing various programmes on the basis of gender, districts, talukas, regions, different trades offered by institutions, stream wise and comparison between international, national and state level skill programmes. It is also found that no much more studies were conducted on different types of skills required by the entrepreneurs and the actual availability in the market.

A reliable search from all the available sources in Goa also proved that research on the said topic is not yet undertaken by any scholar or by any NGO to find the impact of skill development programmes on Employment and self-employment and a relevant contribution made to Goa's economy. Thus based upon the above report and discrepancies pointed above, it can be said that the present study is one of its kind in Goa in particular and elsewhere in any other states of the country. The researcher found the topic to be unique, feasible and relevant to conduct a study in the state of Goa to find the impact of skill development programmes on Employment and self-employment and a relevant contribution made to Goa's economy.

Hence the present study will focus on the impact of Skill Development Programmes on the employment aspect for which past students from various streams and also the various perceptions of institutional heads, present students and industrialist are taken into consideration to draw the inferences.

## 2.4 Conclusion

The chapter deals with review of articles, PhD theses, printed scripts and e-journals on various aspects like education, self-employment, vocational training programmes and skill developmentprogrammes. It also includes the research gap found through various literatures on the concern topic skill development programmes in Goa.

## 3.1 Introduction

Skill development policy is an essential part of inclusive economic, labour and social policies and programmes. A structure for better harmonization among various Ministries, States, industry and other stakeholders is recognized through partnership between Government, industries, state governments, institutions and all probable skill providers. Developing skills for self-employment is a significant component in the skill development efforts in rural parts of the country. Post-training support, including mentoring for access to markets, credit and suitable technologies are an important part of skill development strategy for self-employment. Skill development makes it easy for workers and entrepreneurs to shift from reducing and low-productivity sectors into rising and higher-productivity activities and exploit on latest technologies. The various types of institutions including schools, public and private training institutions, civil society organizations, Non-Government Organizations etc. are optimistic to carry out skill development programmes for the different sectors.

The Ministry of Skills Development offers grants to community and technical colleges to make available customized job training programs for businesses who like to offer training to new workers or those who are willing to start his own business or like to improve the skills of their present workforce. Education, vocational training and lifelong learning are the most important pillars of getting employability. Workers employment and sustainable development of enterprise within the organization contributes to attain the milestone of development goal to reduce poverty. It is a need to strengthen skill development in schools, colleges and vocational streams to reduce the percentage of school drop outs. The better quality of education at school level will influence on the effectiveness of entire skill development programmes. Thus it will lay down a concrete foundation for youth to acquire employable skills and take on continuous skill up-gradation throughout their life.

The requirement for skilled labour is very soaring at national and international market. The 11th Five Year Plan predicts an increase in the capacity to 15 million annually. At present the capacity of India for developing skills is around 3.4 million persons every year. Hence, there is a need for escalating capacity and capability of skill development programs. The government of India has taken a mission of skill development for training 500 million by 2022 for which 1000 crores were allocated in annual budget for the year 2013-14, 2014-15 whereas in 2015-16 budget it was increased to 1500 crores, 1804 crores and 3016 crores for the annual budget 2016-17 and 2017-18.

### 3.2 Meaning of Skill Development

Skills Development is the process of (1) identifying your skill gaps, and (2) developing and honing these skills. It is important because your skills determine your ability to execute your plans with success.

Skill Development means developing yourself and your skill sets to add value for the organization and for your own career development. Fostering an attitude of appreciation for lifelong learning is the key to workplace success. Continuous learning and developing one's skills requires identifying the skills needed for mobility and then successfully seeking out training or on-the-job opportunities for developing those skills.

Developing your skills begins with assessing which skills are important for your desired career development. The career mentors can help to identify the types of skills that will help you to move forward in your career. Your development should follow the 70-20-10 rule: 70% of your development should come from on-the-job activities and action learning. This includes development experiences like managing a project; serving on a cross-functional team, taking on a new task, job shadowing, job rotation, etc. 20% of your development should come from interactions with others. It includes having a mentor, being a mentor, coaching, participating in communities of practice, serving as a leader among the staff, organization, etc. 10% of your development should come from training, including classes, seminars, webinars, podcasts, conferences, etc.

Dr. BE Nzimande, MP Minister of Higher Education and Training states that, "For our country to achieve high levels of economic growth and address our social challenges of poverty and inequality, we must work together to invest in education and training and skills development to achieve our vision of a skilled and capable workforce to support an inclusive growth path". He makes a distinction between education, training and skills development and that he frames skills development within clear objectives which means Skills development is the intended output of education and training efforts and it should be an enabler for growth.

According to James Moore, owner of Fleet Dynamics, skill development means "Enhancing the capability of employees to (hopefully) improve the company's efficiency in the employee's specific sphere of influence; and thus ultimately improving the bottom line revenue of the company." Skills development, therefore, can be defined as what we do that is to improve productivity in the workplace and the competitiveness of our businesses and to improve the quality of life of workers, their prospects of work and their mobility.

## 3.3 Different types of Skills:

### 1. Labour skills

Skilled workers like electrician, masons, carpenters, blacksmiths, bakers, coopers, printers and other occupations that are economically productive have long historical importance in the field of artistic work. Skilled workers were often politically active through their craft works. These workers use their skills to to bring beauty in the nature and in the life of human being to make more attractive and pleasant.

### 2. Life skills

Life skills are problem-solving behaviour that is used appropriately and responsibly in the management of personal affairs. They are a set of human skills, acquired through teaching learning or direct experience that are used to handle problems commonly encountered in daily human life. The subject varies greatly from society to society, community to community, region to region, etc. depending upon the societal norms and the expectations of the community.

### 3. People skills

People skills are understanding ourselves and modifying our responses to talk effectively and empathizing for accurately building relationships of trust, respect and productive interactions. A British definition people skills as "the ability to communicate effectively with the people in a friendly way, especially in business. The term people skill is used to include both psychological skills and social skills, but is less inclusive than life skills.

### 4. Social skills

Social skills are those skills which facilitate to interact and communicate with others. Social rules and relations are created, communicated, and changed in verbal and non-verbal ways. The process of learning such skills is called as socialization.

### 5. Soft skills

Soft skills are the combination of interpersonal people skills, social skills, communication skills, character traits, attitudes, career attributes and emotional intelligence quotient (EQ) among others. These skills are used to communicate and convince effectively to the people or the group as a whole.

**6. Hard skill**

Hard skills are those skills which are related to a specific task or situation. These skills are easily quantifiable unlike soft skills which are related to one's personality.

**3.4 Types of Skills under SDP in Goa:**

**a) Engineering Trades**

Information technology, Electronic mechanic, fitter, turner, mechanist, electrician, instrument mechanic, electronic mechanic, draughtsman(civil), draughtsman (mechanical), mechanic (petrol), mechanic (diesel), wireman, welder (gas and electric), carpenter, plumber.

**b) Non-engineering trades**

Computer operator programming assistant, desk top operator, stenography, secretarial practice, hair and skin care, food decoration, steward, cutting and sewing, data entry operator, driver, etc.

**c) Vocational skills**

Computer software, electric and electronic appliances, auto engineering, office secretary, stenography, accountancy and auditing, marketing salesmanship, garment making and designing, catering and restaurant management, industrial management, insurance, healthcare assistant, horticulture, tourism and travel, electronic technology, bakery and confectionery.

**d) Employability skills (colleges)**

The employability skills are important for the candidates who want to get employed for the job and such skills are mostly taught at the degree level by the various institutions they are soft skills, interpersonal skills and higher order skills.

**e) Soft Skills**

This includes reading, writing, public speaking, computing, language, communication, interaction.

**f) Interpersonal skills**

The skills such as leadership, teamwork, planning, problem solving, flexibility, confidence, creativity, decision making, relationship, co-ordination are imparted.

**g) Higher Order Skills**

The higher order skills includes Presentation Skills, Problem solving Skills, Documentation Skills, Case study and Interpretation Skills, arithmetic skills etc..

**h) Professional colleges**

The skills offered are Civil engineering, Electric engineering, Electronic engineering, IT engineering, Shipbuilding, Architect, Automobile engineering.

**i) Hospitality/service skills**

Catering, canteen services, health care, ayurveda, food and beverage, housekeeping, front office, customer care, Ayurveda – Panchkarama, Geriatric Care.

**j) Agricultural sills**

Nutritional garden, Bee keeping, Soil sampling, Nursery and landscaping, composting, Post Harvest Technologies, Soil and Crop Management, Hill Farming and Foundation Plants, Cultivation and Harvesting, Logistic – Loading, Unloading, Transport, Storage, Cold Storage, Marketing Information System, process food.

**k) Other Skills**

Scaffolding, Fisheries, Shoe Making, Yoga Naturopathy, Motor Driving and Basic Motor Mechanism, Welding, Skin Treatment and Cosmetic Chemistry, Structural Habitat Making, Sound Engineering, Recording, Peace Making Skills, 3D animation, garment making.

**l) Skills categories**

All the above skills are divided into specialized skills, highly skilled and minimal level skills. Specialized skills are the skills wherein the employees are highly skilled in any one domain or area of skill. The highly skilled labour is divided into category I and II. Skill category I consists of engineering, graduates, science and technology while Skill category II are of vocational and ITI's. The minimal skills able are are not well educated but those who have completed X$^{th}$ standard or below.

**3.5 Current Structure of Skill Education in India**

The following is the structure of the Education and Skill Development system in India.

**Diagram 3.1 Current Structure of Skill Education in India**
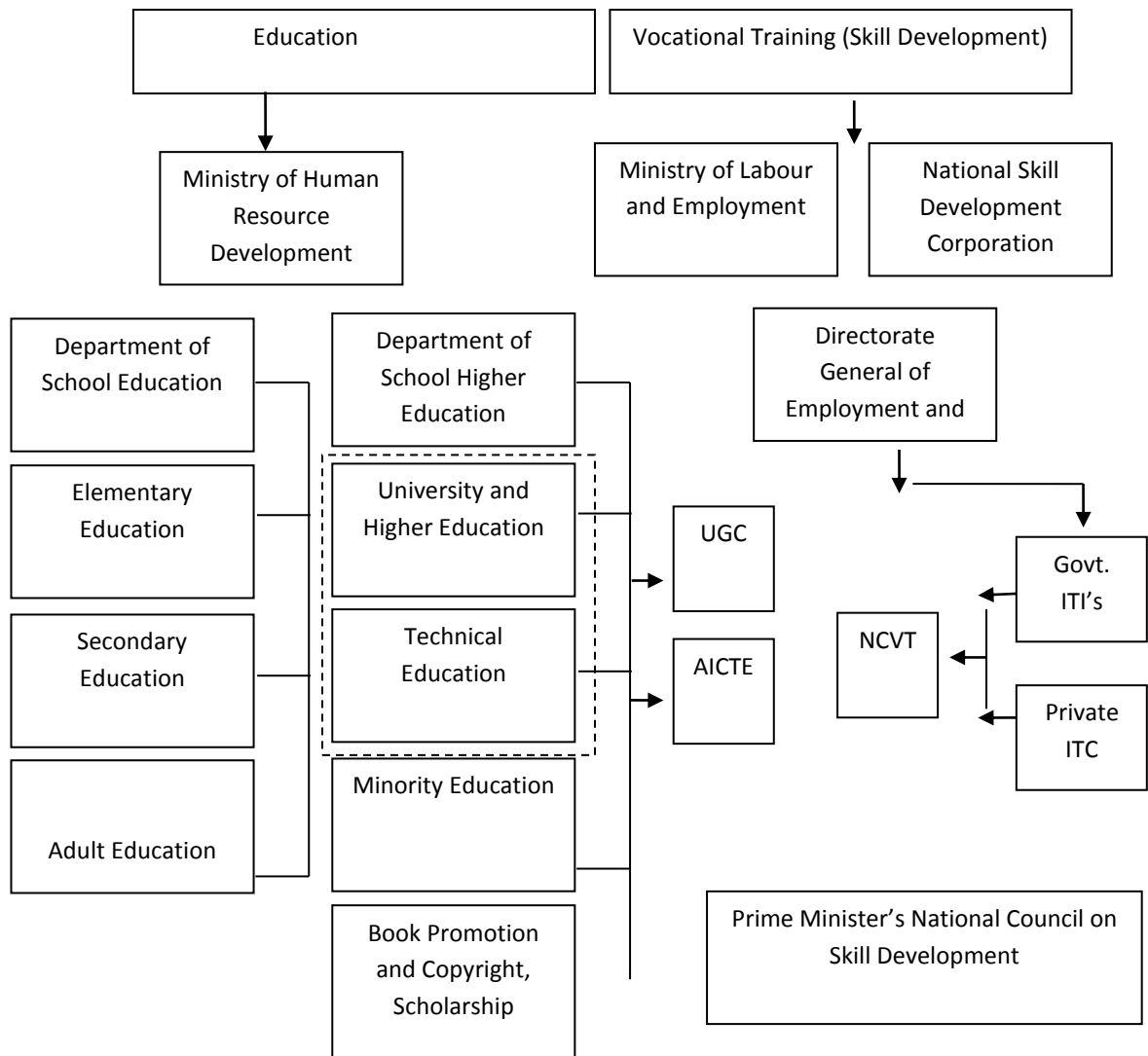


The present structure of skill development in India shows that there are two different ways of channels for imparting skill training to the students. The Ministry of Human Resource Development impart formal education through Higher Secondary Schools, Universities, Technical education, Minority Education institutes in the form of school education, elementary education, secondary education and adult education. The Ministry of Labour & Employment and National Skill Development Corporations on the other hand provide skill development training through ITIs and ITC under Vocational Training.

## 3.6 Ministries and Sectors:

Skill development in India is carried out by 17 Ministries/ Departments to whom the mission of skill development is given to develop skills in 21 different sectors under the scheme Skill Development Mission. Similar to the Ministry of Human Resource Development and Ministry of Labour there are other ministries too are actively involved in Skill Development Programmes in India. The various ministries of central government are M/O of Agriculture, M/O Food Processing, M/O Health and Family Welfare, M/O Heavy Industries/Public Enterprises, M/O Human Resource Development, M/O Information Technology, M/O Labour M/O Rural Development M/O MSME M/O Khadi and Village Industries, M/O Social Justice and Empowerment, M/O Textile, M/O Tourism, M/O Tribal Welfare, M/O Urban Development and Poverty Alleviation, M/O HUDCO (contraction), Under D/O Women and Child.

The various sectors for which skilled employees required are Automobile, Electronics Hardware, Textile and Garments, Leather goods, Chemicals and Pharmaceuticals, Gems and Jewelers, Construction and Buildings, Food Processing, Handlooms and Handicraft, Home Furnishing, IT and Software, BPO-ITES, Tourism, Hospitality and Travel, Transportation and Logistics, Real Estate, Media and Entertainment, Healthcare, Banking, Insurance and Finance, Education, Unorganized Sector and Organized Retail.

## 3.7 Skill India Mission:

Skill India is a campaign launched by Prime Minister Narendra Damodardas Modi on 15 July 2015 which aims at training over 40 crores (400 million) people in India in different skills by 2022. It includes various initiatives of the government like "National Skill Development Mission", "National Policy for Skill Development and Entrepreneurship, 2015", "Pradhan Mantri Kaushal Vikas Yojana (PMKVY)" and the "Skill Loan scheme".

The challenge of skilling India is further provoked by the fact that skill training efforts goes across many sectors and requires the involvement of varied stakeholders such as numerous government departments at the centre and state levels, private training institutions, educational and training institutions, employers, industry associations and certification bodies and trainees. All the stakeholders required to ally their work together for achieving the target of 'Skill India'. The Ministry of Skill Development and

Entrepreneurship was set up in November 2014 to impel the 'Skill India' agenda in a 'Mission Mode' to cover existing skill training initiatives and to unite quantity and quality of skilling efforts in the country.

The Ministry, therefore, launched the National Skill Development Mission (NMSD) which provides the overall institutional framework for rapid implementation of skill development programmes across the India. This Framework for Implementation will provide policy direction to State governments and work out a clear cut plan of action to achieve its skilling targets.

### 3.8 Mission Statement:

*To rapidly scale up skill development efforts in India, by creating an end-to-end, outcome focused implementation framework, which aligns demands of the employers for a well trained skilled workforce with the aspirations of Indian citizens for sustainable livelihoods.*

### 3.9 Mission Objectives

1. To generate an end-to-end implementation framework for skill development, this will provide opportunities for life-long learning. It includes incorporation of skilling in the school curriculum for qualitative long term and short-term skill training programmes, by providing useful employment and making certain for career progression that meets the desires of the trainees.

2. Support employer/industry demand and workforce productivity with trainees' ambitions for sustainable livelihoods, by generating a framework for outcome focused training.

3. Establish and impose cross-sectoral, nationally and internationally suitable standards for skill training in the country by producing a sound quality assurance framework for skilling, applicable to all Ministries, States and private training providers.

4. To build ability for skill development in significant un-organized sectors (such as the construction sector where there are few opportunities for skill training) and provide pathways for re-skilling and up-skilling workers in these acknowledged sectors and to enable them to switch into formal sector employment.

5. To ensure adequate, high quality alternatives for long-term skilling, benchmarked to internationally acceptable qualification standards which will eventually contribute to the formation of a highly skilled workforce.

6. Develop a network of quality mentor/trainers in the skill development ecosystem by setting up high quality training institutions for teachers.

7. Leverage existing community infrastructure and industry services to extent skill training and to take efforts for capacity building.

8. Offer a way for employment in foreign countries through specific programmes chart to international job requirements and benchmarked to global standards.

9. Enable roadmap for transitioning between the vocational training and the formal education system by way of credit transfer system.

10. Promote convergence and harmonization between skill development efforts of all Central Ministries, State Ministries and the implementing agencies.

11. Support weaker sections of the society through focused outreach programmes and targeted skill development activities.

12. Promulgate aspirational value of skilling youth by generating social awareness on value of skill training.

13. Maintain a national data for the purpose of Labour Market Information System (LMIS) which will perform as a portal for matching the requirement and supply of skilled workforce in the country. The LMIS will provide public with very important information on skilling initiatives all over the country. On the other it will also provide a platform for scrutinizing the performance of the present skill development programmes running in every state of India.

### 3.10 Institutional Mechanisms:

National Skill Development Mission at the Centre is formed to drive and execute the Mission's objectives. The institutional mechanisms for accomplishing the objectives of the Mission have been alienated into three tiers. The Mission consists of a Governing Council at apex level, a Steering Committee and a Mission Directorate (with an Executive Committee) as the executive support of the Mission.

Mission Directorate will be supported by three other institutions namely National Skill Development Agency (NSDA), National Skill Development Corporation (NSDC), and Directorate General of Training (DGT). All the three institutions has linkage with Mission Directorate to help smooth functioning of the national institutional mechanism which would continue to lie under the umbrella of Ministry of Skill Development and Entrepreneurship.

At State level it is the responsibility of the States to encourage for creating State Skill Development Missions (SSDM) on the basis of National Skill Development Mission with a Steering Committee and Mission Directorate at State level. On the contrary States will be supported by District Committees at the functional tier.

### 3.11 National Level skill development Structure

**a. Mission Governing Council:** The governing council is an Apex body headed by Hon'ble Prime Minister and **i**n addition to Governing Council. It also invites the other CMs, Union Ministers and related persons from the field of academic and industries depending on the agenda for the meeting.

**b. Steering Committee:** The committee is chaired by Minister Incharge for Ministry of Skill Development and Entrepreneurship who in turn responsible will ensure the Mission activities are implemented properly as per the policies and decisions laid down by Governing Council. The Secretary of Skill Development and Entrepreneurship is the Member Secretary of the Steering Committee. The committee also consists of Secretaries of M/o Finance, M/o Rural Development, M/o Labour and Employment, M/o MSME, M/o Agriculture, M/o Human Resource Development, M/o Overseas Affairs, M/o HUPA and M/o Information Technology which are managing the large scale skill training programmes all over the country.

Mission Directorate consists of Executive Committee which is chaired by Secretary of Skill Development and Entrepreneurship who act as Mission Director. Joint Secretaries of various ministries like M/o Finance, M/o Rural Development, M/o Labour and Employment, M/o MSME, M/o Agriculture, M/o Human Resource Development, M/o Overseas Affairs, M/o HUPA and M/o Information Technology are the members of the Executive Committee. So also five Secretaries from the States those who are handling skills department / ministry in the state on a rotational basis are the members. Further, DG of NSDA, MD of NSDC, and DG of (Training) are also the members as well. A Joint Secretary who are nominated by Mission Director acts as Member Secretary of the Executive Committee. Joint Secretaries from the relevant Central Ministries who have initiated new skill development programmes become members of Executive Committee automatically in order to ensure convergence of individual or sector objectives with national and Mission objectives. The meeting of Executive Committee is held on a monthly basis.

**c. NSDA:** The agency focuses on two verticals of Quality Assurance and policy research in the skills space. It operationalises a credible Quality Assurance framework embedded in the National Skill Qualification Framework (NSQF) to support skilling results to NSQF among the skills landscape. To improve co-operation between Mission Directorate and NSDA, the Secretary of MSDE is also designated as ex-officio Chairman of NSDA. This enables Secretary to Chair National Skills Qualification Committee (NSQC), in his capacity as Chairman NSDA helps in energizing NSQC who is not only responsible for establishing a Quality Assurance framework rooted in NSQF in the skill activities but also provides a framework for certification, accreditation of training providers etc.

**d. National Skills Research Division (NSRD):** NSDA will be established to serve as the apex body for providing technical and research support to the Mission. This Institution will act as a think-tank for Ministry of Skill Development and Entrepreneurship and be the core skill development hub, which will connect implementation of the Mission with academic research and data. It includes economist/expert in the field of planning, with adequate domestic or international experience in skill development. The selection of the head of this division will be done through an empowered Search Committee consisting of Vice Chairman, NITI Aayog – Chairman, Secretary, Human Resource Development, Secretary, Skill Development and Entrepreneurship, DG, NSDA (Member Secretary), 2 eminent persons appointed by the nodal Ministry

**e. National Skill Development Corporation (NSDC):** This will support the Mission through capacity building initiatives and support private training partners. The various functions of NSDC is to Catalyze the creation of market-based, scalable business by providing funding through a combination of debt, equity and grants, to implementing skills voucher programme, to driving engagement with industry and businesses, to promote centre of excellence for training of trainers in coordination with States and SSCs to initiate and incubating Sector Skills Councils (SSCs)

**f. Directorate General of Training:** Training and Apprenticeship under DGET, MoLE have been transferred to Ministry of Skill Development and Entrepreneurship from 16th April 2015. It is responsible for maintaining existing skill training structures in the country through National Council for Vocational Training (NCVT). The existing institutional framework which consists of ITIs, ATIs, RVTIs and other national institutes acts as tools of execution for Mission activities.

## 3.12 State Level skill programmes:

States are being encouraged to create State Skill Development Missions (SSDM) along the same lines of National Skill Development Mission structure. Many States have already established SSDMs and other states have already moving in a required direction. A model framework is circulated for customized adoption by States. The organizational structure of the State Skill Development Mission need to be decided by the respective State. It is however desirable that the highest body looking after the Development Mission is sufficiently empowered. National Mission is working towards empowering State Missions through financial and technical support.

### 3.12.1 Mission Strategy

National Skill Development Mission consists of seven sub-missions under which could be amended as per the decision of Governing Council chaired by Hon'ble Prime Minister. The Secretary of MSDE issues detailed guidelines of each sub-mission and each sub-mission is acting as a building block to accomplish the overall objectives of the Mission. The important areas of the sub-mission includes addressing the long-term and short-term skilling requirements through revamp of existing institutional training structure and forming new institutions, start sector specific skill training initiatives, make sure convergence of existing skill development programmes, leverage existing public infrastructure for skilling, training of trainers, assist overseas employment, and support sustainable livelihoods.

Each sub-mission is headed by a Joint Secretary or Director designated as CEO, public or private sector who has a good track record of implementing projects and achieving targets on a timely manner.

### 3.12.2 Skill Sub-Mission: Institutional Training

**Objectives**
• To impel quantity, quality and reach of training provision and outcomes.
• To provide horizontal and vertical lane to academic qualifications and the job market, respectively.
• To provide demand driven, outcome concentrated training aiming at accomplishing high placement rates.

**Enablers**

• A number of branded, purpose-built Multi Skill Institutes (MSI) would be set up in a public private partnership (PPP) mode.

• These institutions should focus on collaborations with industry representatives and professional training providers to guarantee the training programmes are appropriate and meet high quality standards.

### 3.12.3 Skill Sub-Mission: Infrastructure

**Objectives**

• To erect capacity and ensure high quality skill development in infrastructure including construction sector for increasing productivity of workers through an emphasising on on-the-site training.

**Enablers**

• Working in close contact with the existing sectors and skill councils to train workers for organized and unorganized sectors.

• Designing and developing specific training programmes for unorganized workers especially in the construction sector for which training curriculum should be prepared in collaboration with employer and experts from industry.

• Providing trainees opportunities for the trainees' on-the-site and off-the--site by tie-ups with relevant industry partners.

### 3.12.4 Skill Sub-Mission: Convergence

**Objectives**

• To ensure smooth functioning of norms and to co-ordinate various training partners of skill development.

**Enabler**

• Creation of common standards for rationalization of Skill Development schemes at the Central and State level.

• Engagement with States, revitalize the SSDMs as State level co-ordinating bodies and promoting convergence of implementation efforts in the State as similar to national objectives.

• Encouraging States to open Kaushal Vardhan Kendras (KVKs) to raise outreach and provide training related to local needs.

• Coordinate setting up of National Skills Portal by NSRD to supply information to potential trainees on the training and prospective career opportunities available in the field of training. This complete database also covers the number of people who are being trained in different trades at the national and state levels.

### 3.12.5 Skill Sub-Mission: Trainers

**Objectives**

• To improve overall quality of instruction at training institutions all over the country.

• To assemble trainer's training requirement in each and every sector and geographical region across India.

• To check adequate availability of trainers in skill sectors.

• To make available trainers with long-term career opportunities.

**Enablers**

• Designing special courses meant for training of trainers and master trainers. This will serve two key purposes;

i) See that there is a continuous supply of well-trained trainers.

ii) Provide opportunity for trainees to upgrade their skills and become trainers and master trainers.

• In addition to receiving training in pedagogy and training methodology, the trainers will be trained in communication skills, interpersonal skills, IT skills, counseling and mentorship skills.

### 3.12.6 Skill Sub-Mission: Overseas Employment

**Objectives**

• To make sure that youth in India are trained at the highest international standards in order to enable them to get employment opportunities abroad.

• To provide information of employment opportunities abroad and facilitate candidate to access them.

• To ensure international mobility of skilled workers in the country.

**Enablers**

• To accelerate establishment of uniformity between NSQF and International Qualifications Frameworks which will ensure that workers trained in India could also obtain jobs abroad on the basis of Indian qualifications.

• Partnerships with top vocational training institutions in other countries, exchange programmes for Master Trainers etc. is other important aspects of this sub-mission.

• Discovering international workforce requirements in intended countries through reliable information obtained from Indian embassies, research organizations etc. for the purpose of facilitating international mobility.

### 3.12.7 Skill Sub-Mission: Sustainable Livelihoods

**Objectives**

• To empower trainees by encouraging them to maximize the potential of skill training by providing them a way to access long-term sustainable livelihoods.

**Enablers**

• Prepare standard communication packages for exact skill development programmes, which will draw some of the key features of the training programmes, probable employment opportunities, salary expectations and some other benefits.

• Trainees will be provided with counseling services by experts to help the process of career guidance.

• Mentorship will be a core component of the implementation framework of skill development initiatives under the Mission. Trainees who fruitfully complete their training programme will be eligible for mentorship support from master trainers or industry experts, who can guide them in the process of making job applications and making long-term career decisions.

• Trainees who willing for self-employment or those who want to become entrepreneurs will also be given guidance and support to achieve their objectives.

• Promote entrepreneurial atmosphere amongst youth through integrating entrepreneurship education as a part of formal education system.

### 3.13 Financing

The implementation of skilling activities under the Mission will be as per the budget provisions of various schemes under their respective heads of account. The administrative expenses of the Mission will be borne from the budget of Ministry of Skill Development and Entrepreneurship. The IFD of the Ministry will function as the finance wing of the Mission. The administrative support to the Mission will be provided by the Ministry.

### 3.14 Goa Directorate of skill Development and Entrepreneurship

The name of the Society is "Goa Skill Development Initiative Society" which was also known as State Directorate of Craftsmen training  and as per the XXXIXth cabinet meeting of the Directorate of Labour held on 21-09-2016 a decision was taken to recname the directorate of Craftsmen Training as Ministry/ Department/ Directorate of Skill Development and Entrepreneurship. It is an effort to make it the Nodal Department entrusted with Co-coordinating the important task of skill India campaign of the Central Government and to speedily implement various connected schemes in close Co-ordination with all the State Government departments as well as Private Establishments involved in Skill Development. The registered Office of the Society is housed in the State Directorate of Craftsman Training, Shram Shakti Bhavan, 3rd floor, patto plaza, Panjim, where the operation is for the entire state of Goa.

### 3.14.1 Aims and Objectives of the Ministry

**A)** Aims The main aim of the ministry is to provide Vocational Training in closer consultancy with industry in the State of Goa and secondly the society shall function on "no profit no loss" principle. However, its affairs shall be managed in such a way that it becomes self supporting in due course and is able to meet all its expenses and liabilities on its own.

**B)** Objective of the Ministry: The objective of the Ministry is to implement the Skill Development Initiative Scheme (SDIs) in the State of Goa by Providing Vocational training to school leavers, existing workers, ITI graduates etc and improving their employability of optimally utilizing the infrastructure available in Government / Private Institutions and the Industry, and testing and certifying existing skills of the persons. Secondly, building capacity in the area of development of competency standards, course curricula, learning material and assessment standards in the State of Goa.

**3.14.2 Functions:**

The various functions of the Ministry are;

1. Assess labour market demand.

2. Give wide publicity to the scheme.

3. Invite applications from Vocational Training providers, scrutinize the same.

4. Maintain list of approved Vocational Training Providers.

5. Issue admission notice as per prescribed admission guidelines.

6. Ensure the implementation of prescribed training fee in the Vocational Training Providers.

7. Prepare annual training plan for the State and send the same to Regional Directorate of Apprenticeship Training / Director General of Employment and Training at least three months before start of the financial year.

8. Ensure the implementation of reservation policy for Schedule Caste/ Schedule Tribe, Women and others in respect of training places in Vocational Training Providers.

9. Provide support to the assessing bodies in conducting tests.

10. Monitor and evaluate the outcome of the scheme.

11. Prepare guidelines for inspecting Vocational Training Providers.

12. Ensure proper utilization of funds released to the Vocational Training Providers.

13. Re-imbrues of training cost to Vocational Training provider through Electronic

14. Re-imbursement of assessment fee to Assessing Bodies through Electronic Clearance System within 30 days.

15. Registration of Vocational Training Providers.

16. Issuance of Fund utilization certificate to Director General of Employment and Training.

**3.14.3 First Managing Committee:**

The Managing Committee of the Society Shall be the Committee constituted in accordance with the Rules and Regulations of the Society. The names, addresses, occupations and designations of the members of the first Managing Committee was formed under the rules and regulations of the Society. The Management of its affairs is entrusted as chairman belong to Secretary dealing with Craftsmen Training Department, Member secretary from State Director of Craftsmen Training Department wheras two Members from Director of Education or nominee and Director, Technical Education or nominee respectively.

**3.14.4 Rules and regulations:**

The Rules and Regulations of the "Ministry of skill Development and Entrepreneurship"

1.  Short title and Commencement (1) These Rules and Regulations shall be called the Rules and Regulations of the "Goa Ministry of Skill Development and Entrepreneurship". (2) They shall come into force with effect from the date of registration of the "Goa Skill Development initiative Society" under the Societies Registration Act 1860 (21 of 1860).

2.  The Society shall maintain a role of members at its registered office and every member shall sign the same and state therein his designation, occupation and address. No member shall exercise his rights and privileges of a member unless he has signed the roll as before said.

3.  If a member o the Society changes his address, he shall notify his new address to the Member Society who shall thereupon enter new address in the roll. If such member fails to notify his new address, the address in the roll of the Society shall be deemed to be his address.

4.  Should any ex-officio or institution member of the Society be unable to attend or prevented from attending a meeting of the Society, the respective parent Organization shall be at liberty to appoint a substitute in his place for that meeting of the Society.

5.  The membership of an ex-officio member of the society shall terminate when he ceases to hold the office or appointment by virtue of which he was member. However, the respective parent Organization shall be entitled to remove their nominee at any time from membership and nominate other person in his place.

6.  The non-official members of the Society shall be nominated by the Government and they shall hold the Office for such period as may be determined not more than three years from the date of their nomination.

7.  A member of the Society shall loose his / her membership on the following grounds and reasons: If he / she does not attend three consecutive meetings of the Society without sufficient cause or leave of absence granted to him/her by the Chairman If he or she dies, resigns, becomes of unsound mind or insolvent and is convicted of a criminal offence involving moral turpitude.

8. The registration of a member shall be tendered to the Society through the Member Secretary and shall not be effective until it has been accepted in writing by the Chairman of the Managing Committee on behalf of the Society.

9. (a) A vacancy in the membership caused by any of the reasons mentioned in Rule 8 or 9 may be filled up by the Society. (b) The Members whose membership is terminated for the reason as mentioned in Rule 8 (iii) shall be eligible for reappointment.

### 3.14.5 Meetings of the society

10. There shall be two meetings of the Society namely Annual General Meeting, and Extra – Ordinary General Meeting. The Annual General Meeting of the Society shall be held not later than six months after the expiry of each financial year at such date, time and place as may be decided by the President in consultation with the Managing Committee.

11. The Chairman may at any time summon an extraordinary General Meeting of the Society, if considered necessary for transaction business of important nature or if so requisitioned by not less than five members of the Society in writing with reason therefore.

12. Except as otherwise provide d in these Rules and Regulations, all meetings of the Society shall be called by notice issued by the Member Secretary of the Society who shall act in accordance with the direction of the chairman in this regard.

13. (a) Every notice calling meetings of the Society under Clause 11 shall state the date, time and place at which such meeting will be held and be served to every member of the Society at least ten days before the day fixed for the meeting.

14. (a) Every meeting of the Society shall be presided over by the Chairman and in his absence by a member chosen by other members to preside over that particular meeting, and (b) One-third of the total members of the Society present in person shall form a quorum at every meeting of the Society. Where the quorum is not present within half an hour of the time fixed, the meeting shall stand adjourned and may be held at the same place after half an hour following the adjournment.

15. (a) The Society shall keep minutes of all proceedings of its Annual General Meetings, and of its Extra Ordinary General Meetings, (b) Any such minutes, if purporting to be signed by the Chairman of the meeting at which the proceedings were held by the Chairman of the nest succeeding meeting, shall be evidence of the proceedings and (c) The minutes book shall be kept at the Registered Office of the Society and shall during business hours be open to inspection of any member free of charge.

16. (a) In respect of the following business of the Society, a special resolution would be required to be passed for Amendment of the Memorandum of Association and / or Rules and Regulations of the Society, Change in the name of the Society, subject to approval of the Registrar. Amalgamation and division of the Society and Dissolution of the Society. (b) A copy of the Special Resolution shall be filed with the Registrar within thirty days from the date of passing of such resolution signed by the Member Secretary of the Society.

## 3.14.6 Managing committee:

17. (a) The Management of the affairs of the Society shall be entrusted to, and administered, directed and controlled by a Managing Committee in accordance with these Rules and Regulations, (b) The members of the Managing Committee shall become ipso facto members of the society on their admission, (c) The tenure of the Managing Committee shall be for a period of not more than three years, (d) The ex-officio and nominated members of the Managing Committee shall hold their office by virtue of being the nominee on behalf of their respective parent Organizations.

## 3.14.7 Funds of the Society/Ministry

18. The funds of the Society shall consist of the following; a) Grant-in-aid to be received from the Government of India under the Scheme, "Skill Development Initiative Scheme" based on Modular Employable Skills, b) Income from Investments and savings, c) Fees / service charges levied by the Society for service rendered or provided by it, d) Grants, contributions and donations received by the Society from Government of India, Government of Goa, Public Sector Undertakings, Non-Government Organizations and Corporate under their Corporate Social Responsibility (CSR).

19. (a) The bankers of the Society shall be the nationalized bank as may be decided by the Managing Committee or as decided by the Central Government in the instructions issued from time to time, (b) All funds shall be deposited in the accounts of the Society which shall be operated upon by such officer(s) as may be duly authorized by the Managing Committee.

### 3.14.8 Accounts and audit

20. (a) The Society shall maintain proper books of accounts and prepare annual statements of accounts for each financial year ending 31$^{st}$ March in such form as may be specified by the auditors appointed by the Society, (b) The audited accounts of the Society shall be placed before Managing Committee for consideration and approval and thereafter the same shall be put up before the General Body for approval within six months from the date of closing of the financial year. The audited report shall be filed with the Registrar within three months from the date of conducting the General Body of the Society.

21. The Books of accounts of the Society shall be kept at the Registered Office of the Society and shall be open to inspection to any member free of charge during the office hours.

22. The accounts of the Society shall be audited annually by auditors and any expenditure incurred in connection with the audit of accounts of the Society shall be payable by the Society.

### 3.14.9 Powers of the government

23. The Central Government shall have the following powers in the conduct of the affairs of the Society, namely to issue instructions for bringing about any changes in the memorandum of association and/or rules and regulations of the Society, to call for such reports, documents and papers with respect to the activities of the society as may be required, from time to time.

**3.15 Present scenario of skill development programmes in the state of goa.**

**3.15.1 Introduction**

To verify the first objective of the study i.e. *to evaluate the various components and the present scenario of skill development programmes in the state of Goa,* the objective was verified with reference to Streams, Institutions, Trades, and Enrolment of students. Further the data collected from the Directorate of Government departments and institutions were grouped together and tabulated into tables and charts to find out whether the skill programmes are equally distributed in the state of Goa.

**3.15.2 Analysis**

The subsequent sections give the explanation of the present scenario of skill development programmes in the state of Goa on the basis of institutions, trades and enrolment.

**3.15.2.1 Institutions**

Apart from other Streams, the NSQF course in High school was started from 2014-15 only in 75 Government Schools all over the Goa, out of which 56% are located in North Goa while 44% are in South Goa. Training courses for Security Guards were also started in 2014-15 at PTS Valpoi and ISL Belgaum as per the requirement in the Government departments. The rest of the other streams were started before 2011-12.

**Table 3.1 Present scenarios of Institutions (Stream & Location wise)**

| Sr. No. | Stream | Total No. of Institutes/Dep artments in the State | Actual No. of Institutions engaged in skill Dev. Prog. | % | Location | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | Urban | | Rural | |
| | | | | | N | % | N | % |
| 1 | HS (NSQF) | 395 | 75 | 31.9% | 11 | 15% | 64 | 85% |
| 2 | HSS (Voc) | 105 | 49 | 20.9% | 22 | 45% | 27 | 55% |
| 3 | UniD | 26 | 3 | 1.3% | 3 | 100% | - | - |
| 4 | ITI's | 14 | 14 | 5.9% | 7 | 50% | 7 | 50% |
| 5 | HRDFS | 53 | 53 | 22.6% | 33 | 62% | 20 | 38% |
| 6 | EDP | 1 | 1 | 0.4% | 1 | 100% | - | - |
| 7 | GHRSDC | 1 | 1 | 0.4% | 1 | 100% | - | - |
| 8 | TrCPC | 25 | 25 | 10.6% | 22 | 88% | 3 | 12% |
| 9 | Industries | 6 | 6 | 2.6% | 5 | 83% | 1 | 17% |
| 10 | OITSG | 8 | 8 | 3.4% | 5 | 63% | 3 | 37% |
| | **Total** | **634** | **235** | **100%** | **110** | **47%** | **125** | **53%** |

*(Source: Secondary data)*

**Chart 3.1 Present scenario of Institutions (Stream wise)**
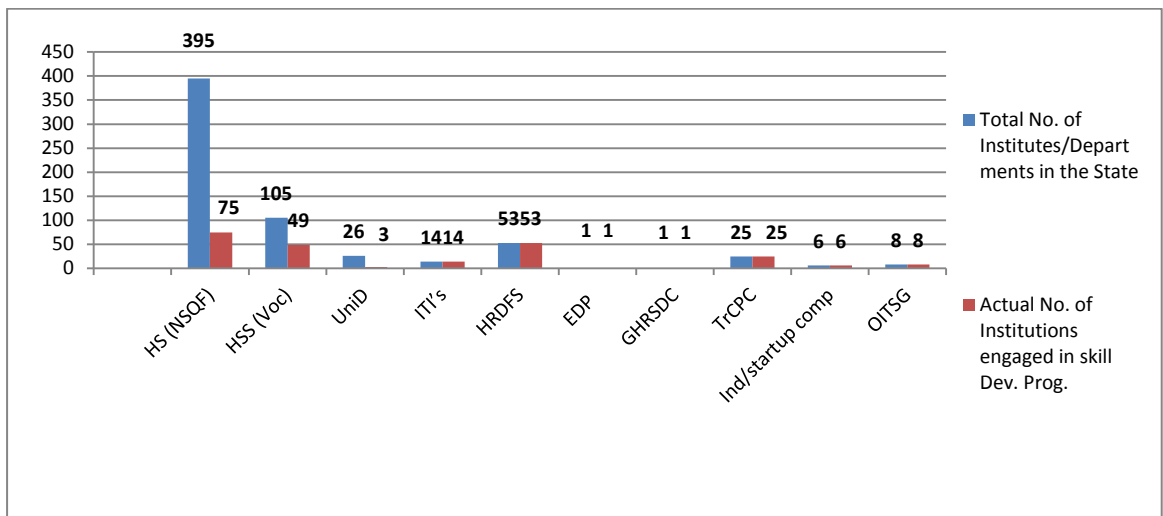


**Chart 3.2 Present scenario of Institutions (Streams Percentage)**
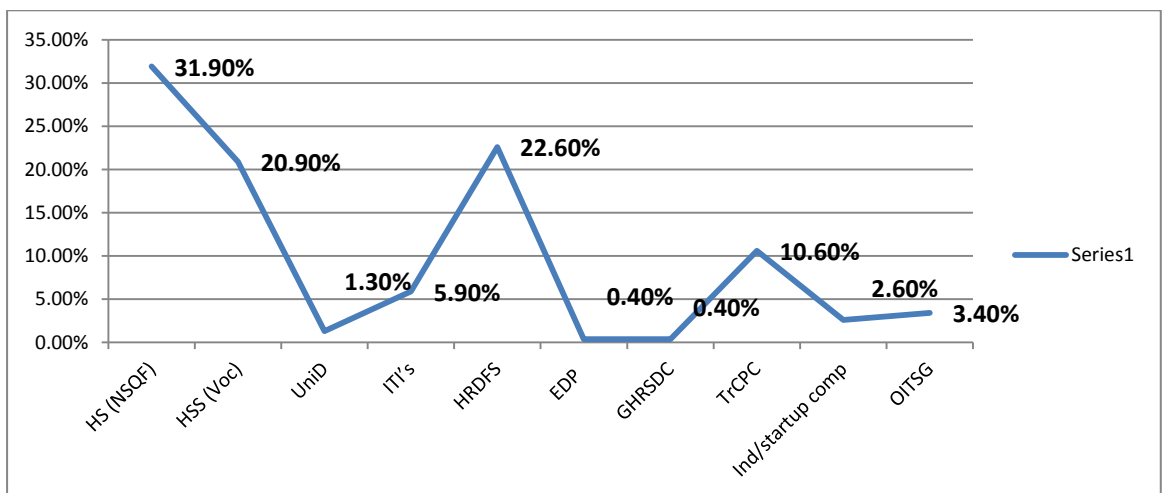


**Chart 3.3 Present scenario of Institutions (Location wise)**
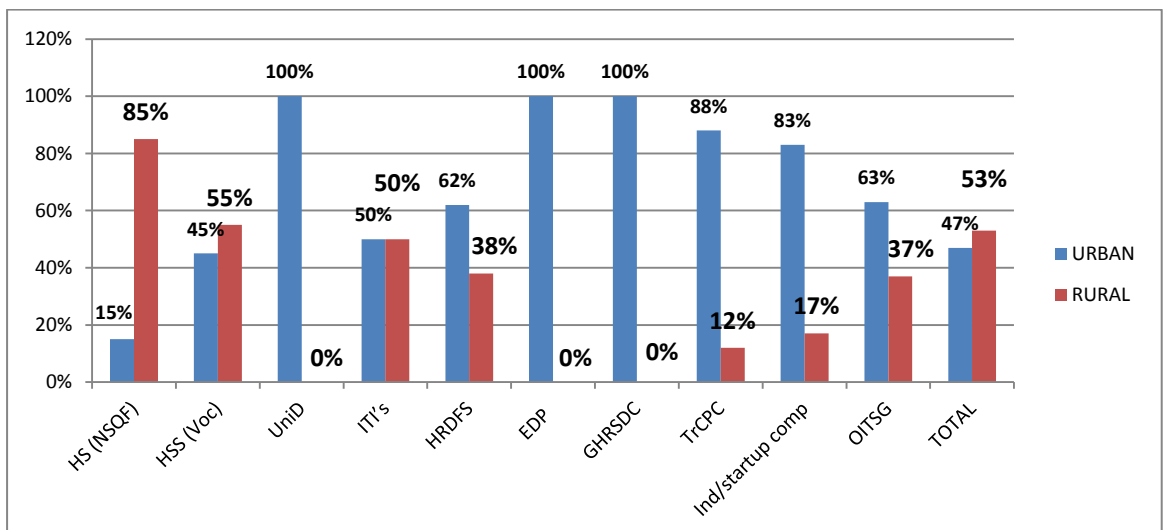
The above table 3.1 reveals the various **institutions** engaged in skill development programmes based on streams and location. The **stream wise** institutional data (table 3.1 and chart 3.1, 3.2) shows that most of the institutes offering skill programmes are HS (31.9%) followed by HRDFS (22.6%) and the least institutes are EDP and GHRSDC (0.4%) each. The **location wise** statistics (table 3.1 and chart 3.3) shows that most of the institutions involved in skill development are located in rural areas (53%) while (47%) in Urban area. The major difference is identified in the institutions based on location is in case of High Schools as only 15% institutes located in Urban area and 85% institutes are located in Rural area. So also UNID, EDP and GHRSDC 100% institutes are in urban area and no institutes in rural area. Most of the TRCPC are in Urban (88%) and only 12% in Rural whereas in case of Industries Urban area (83%) and Rural (17%).

**Table 3.2 Present scenario of Institutions (District wise)**

| Sr. No | Stream | District | | | | Total |
|---|---|---|---|---|---|---|
| | | North | | South | | |
| | | N | % | N | % | |
| 1 | HS (NSQF) | 42 | 56% | 33 | 44% | 75 |
| 2 | HSS (Voc) | 26 | 53% | 23 | 46% | 49 |
| 3 | UniD | 3 | 100% | 0 | 0 | 3 |
| 4 | ITI's | 9 | 64% | 5 | 36% | 14 |
| 5 | HRDFS | 34 | 64% | 19 | 36% | 53 |
| 6 | EDP | - | - | 1 | 100% | 1 |
| 7 | GHRSDC | 1 | 100% | - | - | 1 |
| 8 | TrCPC | 20 | 80% | 5 | 20% | 25 |
| 9 | Ind/Comp | 2 | 33% | 4 | 67% | 6 |
| 10 | OITSG | 5 | 63% | 3 | 23% | 8 |
| Total | | 142 | 60% | 93 | 40% | 235 (100%) |

*(Source: Secondary data)*

**Chart 3.4 Present scenario of Institutions (District wise)**
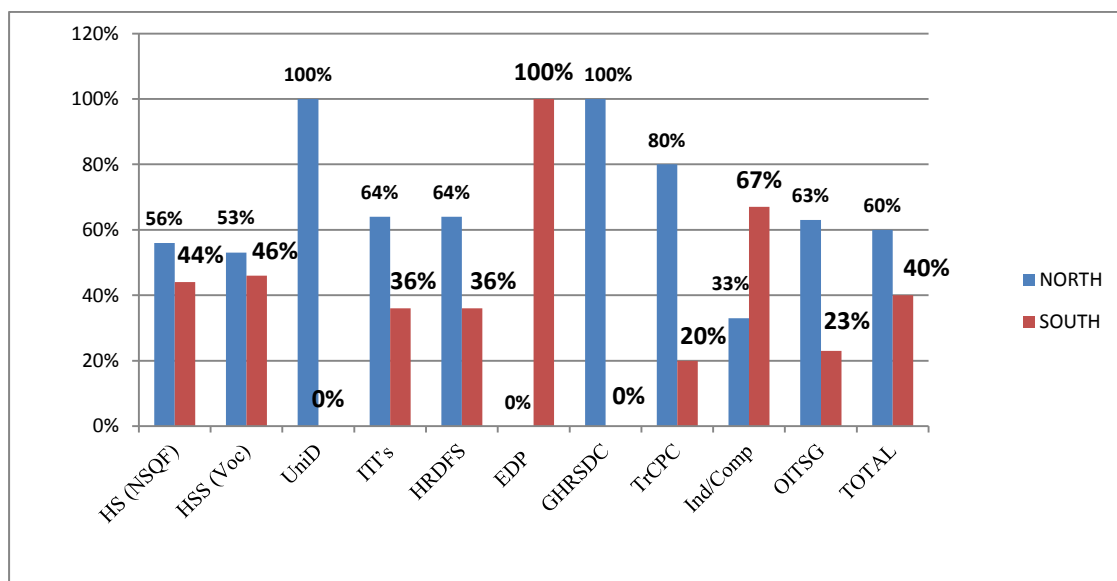
The **district wise** data (table 3.2 and chart 3.4) shows that there exist a difference in institutions offering skill programmes in the state where the majority of the institutions are located in North district (60%) whereas in South district (40%). In case of UNID and GHRSDC shows all the institutions in North district (100%), whereas EDP is in South District (100%). The rest of the institutes such as TRCPC show most of the institutions located in North (80%) HS (56%), HSS (53%), ITI (64%), HRDFS (64%) and OITSG (63%) while most of the industries involved in apprenticeship training are located in south district (67%). The remaining institutions also show some minor difference in distribution of institutions. A major difference was found district wise for UNID, GHRSDC, EDP, TRCPC whereas minor difference is found in other streams.

**Table 3.3 Present scenario of Institutions (Taluka wise)**

| Sr. No | Stream | Taluka (North) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Pernem | | Bardez | | Tiswadi | | Bicholim | | Sattari | | Ponda | |
| | | N | % | N | % | N | % | N | % | N | % | N | % |
| 1 | HS (NSQF) | 7 | 9% | 3 | 4% | 5 | 7% | 11 | 15% | 12 | 16% | 4 | 5% |
| 2 | HSS (Voc) | 4 | 8% | 6 | 12% | 4 | 8% | 3 | 6% | 2 | 4% | 7 | 15% |
| 3 | UniD | - | - | - | - | 3 | 100% | - | | - | - | - | - |
| 4 | ITI's | 1 | 7% | 1 | 7% | 2 | 14% | 2 | 14% | 1 | 8% | 2 | 15% |
| 5 | HRDFS | 1 | 2% | 12 | 23% | 7 | 13% | 6 | 11% | - | - | 8 | 15% |
| 6 | EDP | - | - | - | - | - | - | - | - | - | - | - | - |
| 7 | GHRSDC | - | - | 1 | 100% | - | - | - | - | - | - | - | - |
| 8 | TrCPC | 7 | 28% | 3 | 12% | 3 | 12% | 0 | | 4 | 16% | 3 | 12% |
| 9 | Ind/Comp | - | - | - | - | 2 | 33% | - | - | - | - | - | - |
| 10 | OITSG | - | - | - | - | 4 | 50% | - | - | - | - | 1 | 12% |
| Total | | 20 | 8.5% | 26 | 11.1% | 30 | 12.8% | 22 | 9.4% | 19 | 8.1% | 25 | 10.6% |

**Cont…..**

| Sr. No | Stream | Taluka (South) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Salcete | | Quepem | | Mormugao | | Sanguem | | Dharbandora | | Canancona | |
| | | N | % | N | % | N | % | N | % | N | % | N | % |
| 1 | HS (NSQF) | 4 | 5% | 6 | 8% | 8 | 11% | 7 | 9% | 1 | 2% | 7 | 9% |
| 2 | HSS (Voc) | 14 | 29% | 2 | 4% | 4 | 8% | 1 | 2% | 1 | 2% | 1 | 2% |
| 3 | UNID | - | - | - | - | - | - | - | - | - | - | - | - |
| 4 | ITI's | 2 | 14% | 1 | 7% | 1 | 7% | - | | - | | 1 | 7% |
| 5 | HRDFS | 17 | 32% | 1 | 2% | 1 | 2% | - | - | - | - | - | - |
| 6 | EDP | 1 | 100% | - | - | - | - | - | - | - | - | - | - |
| 7 | GHRSDC | - | - | - | - | - | - | - | - | - | - | - | - |
| 8 | TrCPC | - | - | 2 | 8% | - | - | 1 | 4% | 2 | 8% | - | - |
| 9 | ApprT | 3 | 50% | - | - | 1 | 17% | - | - | - | - | - | - |
| 10 | OITSG | 1 | 38% | - | - | 2 | - | - | - | - | - | - | - |
| Total | | 42 | 17.9% | 12 | 5.1% | 17 | 7.2% | 9 | 3.8% | 4 | 1.7% | 9 | 3.8% |

*(Source: Secondary data)*

**Chart No. 3.5 Present scenario of Institutions (Taluka wise)**
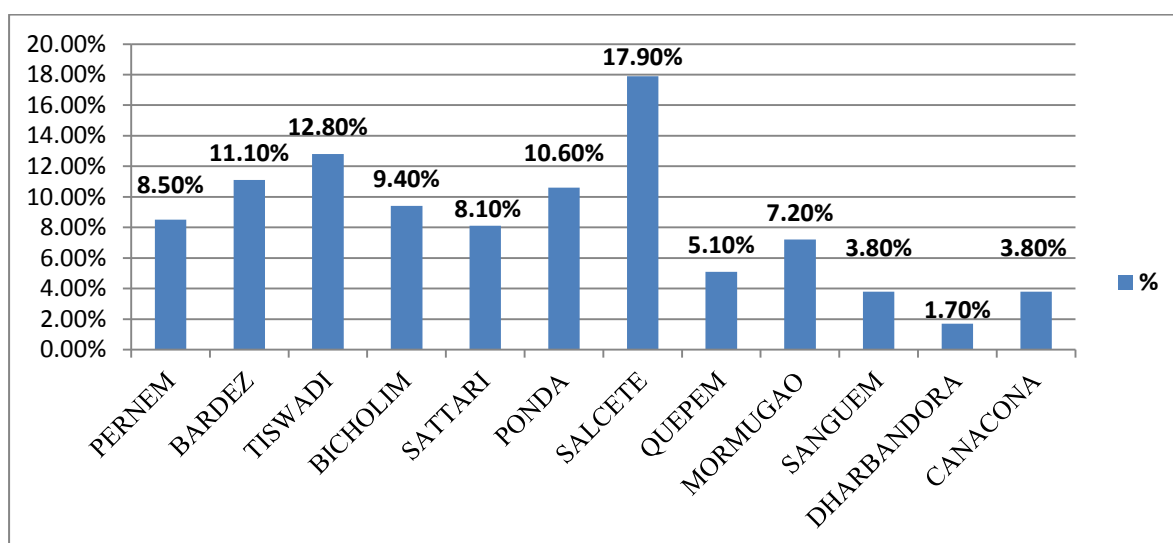


The above table 3.3 and chart 3.5 of institutions taluka wise shows that majority of the institutions are in Salcete (17.9%) followed by Tiswadi (12.8%) and least of the institutes are located in Dharbandora (1.7%). It clearly indicated that there exists a difference in distribution of institutions whether it steams wise, location wise, district wise and taluka wise.

### 3.15.2.2 Trade

The study of **trades** based on streams, District, Location and Taluka were considered to find the present status of skill development programmes in the state of Goa. Similar types of trades are offered in both the sections due to which total percentage is more than 100%.

**Table 3.4 Trades offered under SDP (Stream, Location and District wise)**

| Sr. No | Stream | N | % | Location | | | | District | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Urban | | Rural | | North | | South | |
| | | | | N | % | N | % | N | % | N | % |
| 1 | HS (NSQF) | 15 | 7% | 6 | 40% | 15 | 100% | 15 | 100% | 9 | 60% |
| 2 | HSS (Voc) | 17 | 8% | 14 | 82% | 15 | 88% | 16 | 94% | 11 | 65% |
| 3 | UNID | 6 | 3% | 6 | 100% | - | - | 6 | 100% | - | - |
| 4 | ITI's | 32 | 16% | 25 | 78% | 18 | 56% | 22 | 69% | 18 | 56% |
| 5 | HRDFS | 45 | 22% | 29 | 64% | 32 | 71% | 45 | 100% | 19 | 42% |
| 6 | EDP | 6 | 3% | 6 | 100% | - | - | - | - | 6 | 100% |
| 7 | GHRSDC | 2 | 1% | 2 | 100% | - | - | 2 | 100% | - | - |
| 8 | TrCPC | 2 | 1% | 2 | 100% | 2 | 100% | 2 | 100% | 2 | 100% |
| 9 | ApprT | 39 | 20% | 30 | 70% | 20 | 47% | 21 | 49% | 32 | 74% |
| 10 | OITSG | 38 | 19% | 28 | 74% | 13 | 34% | 28 | 74% | 13 | 34% |
| **Total** | | **202** | **100%** | **148** | **72%** | **115** | **56%** | **157** | **76%** | **110** | **53%** |

*(Source: Secondary Data)*

**Chart 3.6 Trades offered under SDP (Streams wise)**
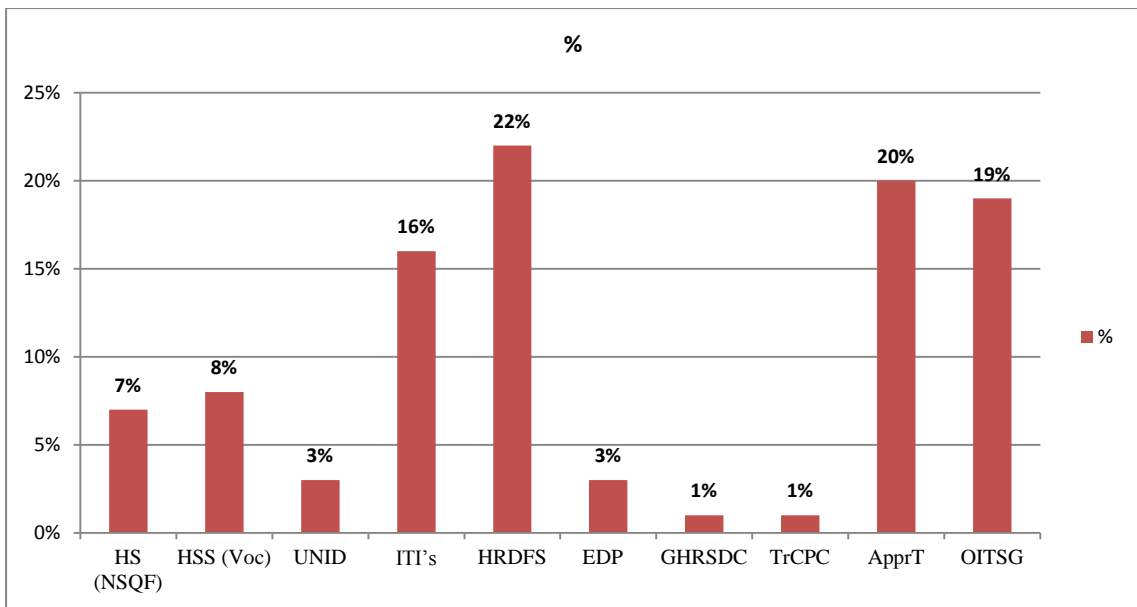


The data of trades on **stream** wise in table 3.4 and chart 3.6 shows that most of the courses are offered in HRDFS (22%) followed by OITSG (19%) and the least Trades are GHRSDC and TRCPC (1%) each.

**Chart 3.7 Trades offered under SDP (Location wise)**
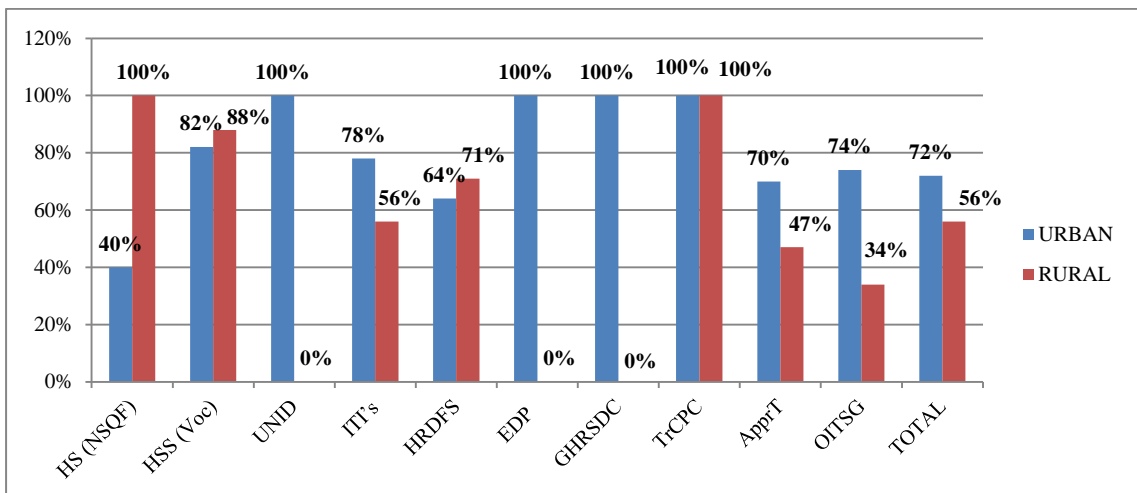


The **location wise** data in table 3.4 and chart 3.7 reveals that out of the total trades more trades (72%) are offered in urban area while less trades (56%) are offered in rural area. A major difference was identified in case of UNID, EDP and GHRSDC as Urban (100%) and Rural (0%), ApprT as Urban (70%) and Rural (47%) and some minor differences in other streams.

**Chart 3.8 Trades offered under SDP (District wise)**
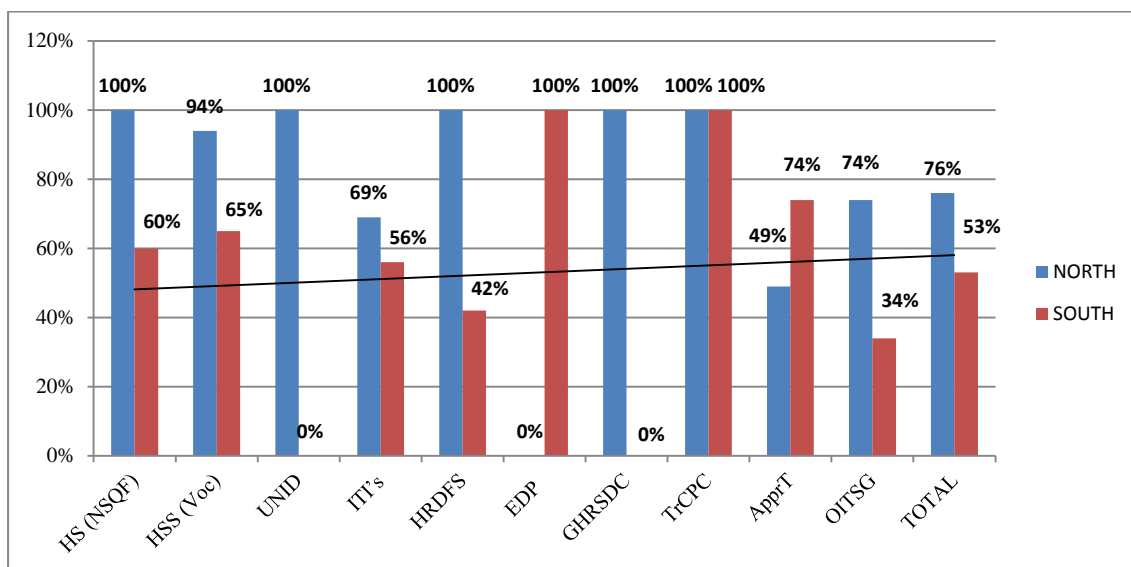


The **district wise** courses in table 3.4 and chart 3.8 also indicate that more courses (76%) are offered in North District as compared to South district (53%). A difference found mainly in case of UNID, GHRSDC as North shows (100%), and South (0%) whereas EDP as South (100%) and North (0%). The rest of the institutes like HS show North (100%) South (60%) HSS North (94%) and South (65%), ITI, HRDFS, Industries and OITSG are also showing minor difference in the courses. In case of District the major differences are found for UNID, GHRSDC shows (100%) in the North and EDP (100%) in South. TRCPC shows (80%) in North and (20%) South whereas minor differences were found in case of other streams.

**Table 3.5 Trades offered under SDP (Taluka wise)**

| Sr. No | Stream | Taluka (North) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Pernem | | Bardez | | Tiswadi | | Bicholim | | Sattari | | Ponda | |
| | | N | % | N | % | N | % | N | % | N | % | N | % |
| 1 | HS (NSQF) | 2 | **13%** | 3 | 20% | 5 | **33%** | 2 | **13%** | 4 | 27% | 4 | 27% |
| 2 | HSS (Voc) | 5 | 29% | 11 | 65% | 8 | 47% | 7 | 41% | 2 | 12% | 11 | 65% |
| 3 | UNID | - | - | - | - | 6 | 100% | - | - | - | - | - | - |
| 4 | ITI's | 9 | 28% | 14 | 82% | 12 | 38% | 16 | 50% | 13 | 41% | 18 | 56% |
| 5 | HRDFS | 9 | 20% | 37 | 82% | 20 | 44% | 5 | 11% | - | - | 8 | 18% |
| 6 | EDP | - | - | - | - | - | - | - | - | - | - | - | - |
| 7 | GHRSDC | - | - | 2 | 100% | - | - | - | - | - | - | - | - |
| 8 | TrCPC | 2 | 100% | 1 | 50% | 2 | 100% | 1 | 50% | 1 | 50% | 1 | 50% |
| 9 | AppT | 1 | 2% | 20 | 47% | 20 | 47% | 12 | 28% | 5 | 12% | 16 | 37% |
| 10 | OITSG | - | - | - | - | 21 | 55% | - | - | - | - | 4 | 11% |
| **Total** | | **28** | **14%** | **88** | **43%** | **94** | **46%** | **43** | **21%** | **25** | **12%** | **62** | **30%** |

**Contd…..**

| Sr. No | Stream | Taluka (South) | | | | | | | | | | | |
| | | Salcete | | Quepem | | Mormugao | | Sanguem | | Dharbandora | | Canancona | |
| | | N | % | N | % | N | % | N | % | N | % | N | % |
| 1 | HS (NSQF) | 4 | 27% | 4 | 27% | 5 | **33%** | 2 | **13%** | -- | - | 3 | 20% |
| 2 | HSS (Voc) | 10 | 59% | 6 | 35% | 9 | 53% | 1 | 6% | 1 | 6% | 1 | 6% |
| 3 | UNID | - | - | - | - | - | - | - | - | - | - | - | - |
| 4 | ITI's | 17 | 53% | 15 | 47% | 11 | 34% | - | - | - | - | 15 | 47% |
| 5 | HRDFS | 16 | | 5 | | 6 | | - | - | - | - | - | - |
| 6 | EDP | 6 | 100% | - | - | - | - | - | - | - | - | - | - |
| 7 | GHRSDC | - | - | - | - | - | - | - | - | - | - | - | - |
| 8 | TrCPC | 1 | 50% | 1 | 50% | 1 | 50% | 1 | 50% | 1 | 50% | 1 | 50% |
| 9 | ApprT | 24 | 56% | 1 | 2% | 11 | 26% | - | - | - | - | 1 | 2% |
| 10 | OITSG | 4 | 11% | - | - | 9 | 24% | - | - | - | - | - | - |
| | **Total** | **82** | **40%** | **32** | **16%** | **52** | **25%** | **4** | **2%** | **2** | **1%** | **21** | **10%** |

**Chart 3.9 Trades offered under SDP (Taluka wise)**
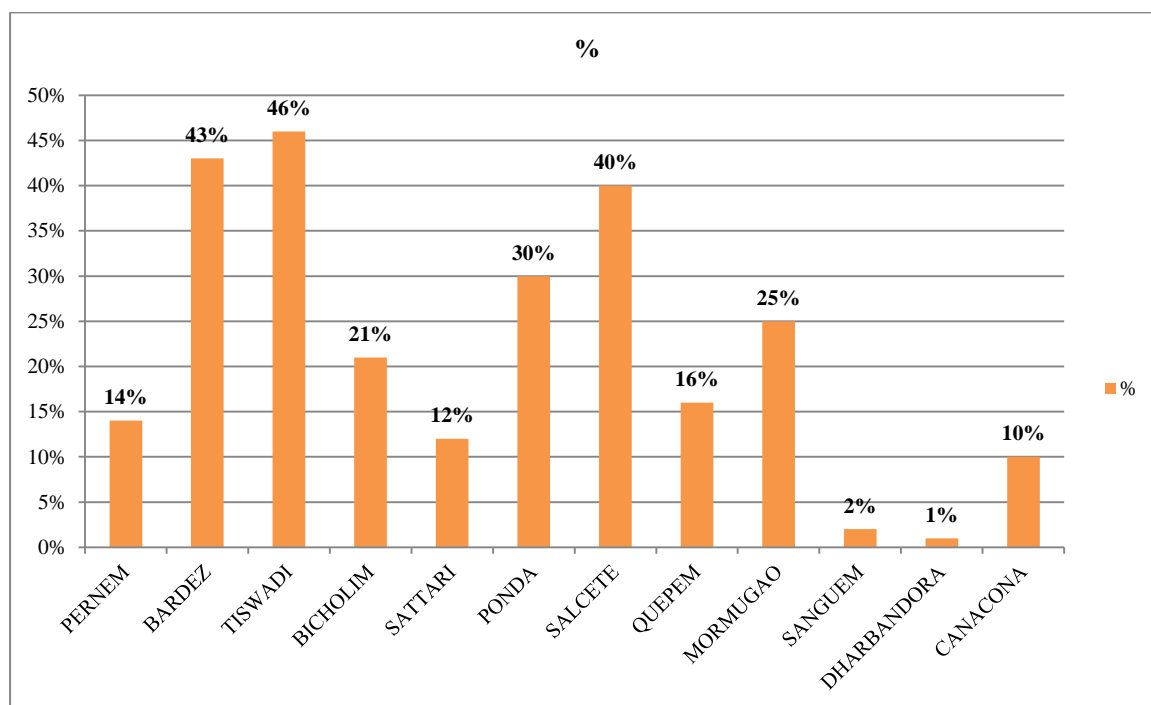


The taluka wise trade distribution in table 3.5 and chart 3.9 reveals that majority of the course are offered in Tiswadi (46%) followed by Bardez (43%), Salcete (40%) and least of the course are offered in Dharbandora (1%). It becomes clear that there exist a difference in trades offered and unequally distributed in the state whether they are stream wise, location wise, district wise and taluka wise.

### 3.15.2.3 Enrolment:

The study of students enrolled in the various streams for the past 5 years i.e. from 2011-12 to 2015-16 based on stream, Location, District and Taluka were considered to find the present status of students enrolled under skill development programmes in the state of Goa. The tables, charts and explanation of students enrolled are given below;

**Table 3.6 Enrolment of Students (Stream wise)**

| Sr. No | Stream | No. of students | | | | | | | | | | Total | % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 11-12 | | 12-13 | | 13-14 | | 14-15 | | 15-16 | | | |
| | | N | % | N | % | N | % | N | % | N | % | | |
| 1 | HS (NSQF) | - | - | - | - | - | - | 684 | 6.6 | 516 | 5.3% | 1200 | 2.6% |
| 2 | HSS (Voc) | 2736 | 30.8% | 2452 | 25.5% | 2374 | 27.3% | 2951 | 28.5% | 2659 | 27.5% | 13172 | 27.9% |
| 3 | UniD | 116 | 1.3% | 132 | 1.4% | 161 | 1.9% | 161 | 1.6% | 180 | 1.9% | 750 | 1.6% |
| 4 | ITI's | 3382 | **38.1%** | 3486 | **36.2%** | 3217 | **37.1%** | 3142 | **30.3%** | 3398 | **35.2%** | 16625 | **35.2%** |
| 5 | HRDFS | 822 | 9.2% | 1116 | 11.6% | 1204 | 13.9% | 1282 | 12.4% | 1005 | 10.4% | 5429 | 11.5% |
| 6 | EDP | 120 | 1.3% | 153 | 1.6% | 110 | 1.2% | 190 | 1.8% | 178 | 1.8% | 751 | **1.6%** |
| 7 | GHRSDC | - | - | - | - | - | - | 1290 | 12.4% | 497 | 5.2% | 1787 | 3.8% |
| 8 | TrCPC | 1365 | 15.4% | 1593 | 16.6% | 540 | 6.2% | 113 | 1.1% | 308 | 3.2% | 3919 | 8.3% |
| 9 | ApprT | 242 | 2.7% | 256 | 2.6% | 335 | 3.9% | 300 | 2.9% | 353 | 3.7% | 1486 | 3.1% |
| 10 | OITSG | 109 | 1.2% | 437 | 4.5% | 737 | 8.5% | 245 | 2.4% | 555 | 5.8% | 2083 | 4.4% |
| **Total** | | **8892** | **100%** | **9625** | **100%** | **8678** | **100%** | **10358** | **100%** | **9649** | **100%** | **47202** | **100%** |

**Chart 3.10 Enrolment of Students (Year wise)**
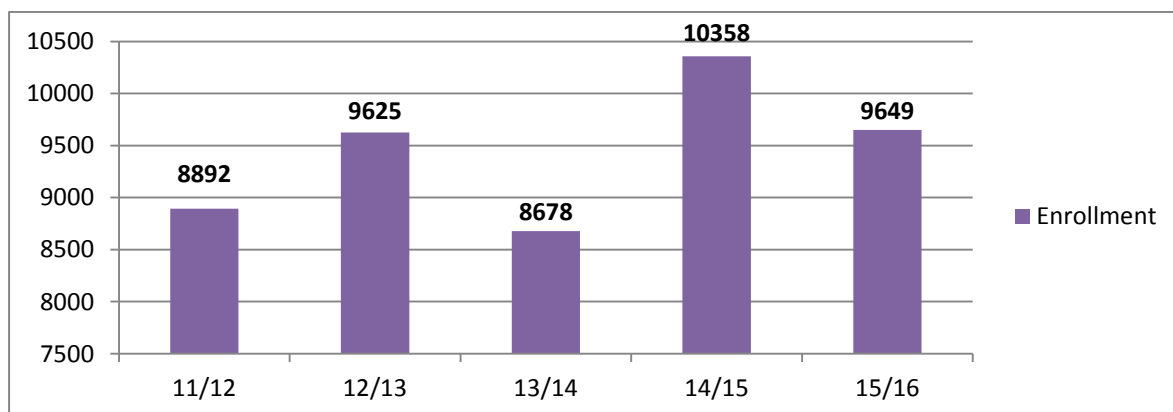


The data in table 3.6 and Chart 3.10 reveals that there is a gradual growth of skill development programmes in the state of Goa over the years since 2011-12 to 2015-16 except in 2013-14. In the year 2013-14 there was decline in enrolment of students whereas 2014-15 again it shows an increasing trend. Again in the year 2015-16 there was a slight decline in student's enrolment as compared to previous year but it is more than the base year 2011-12. It clearly indicates that even though there is changing trend for last five years, the student's enrolment is increasing year after years. The highest enrolment of students during the past five years was found in the year 2014-15 due to introduction of NSQF courses for HS and security guards training by GHRSDC whereas the lowest enrolment in the year 2013-14.

**Chart 3.11 Enrolment of Students (Stream wise)**
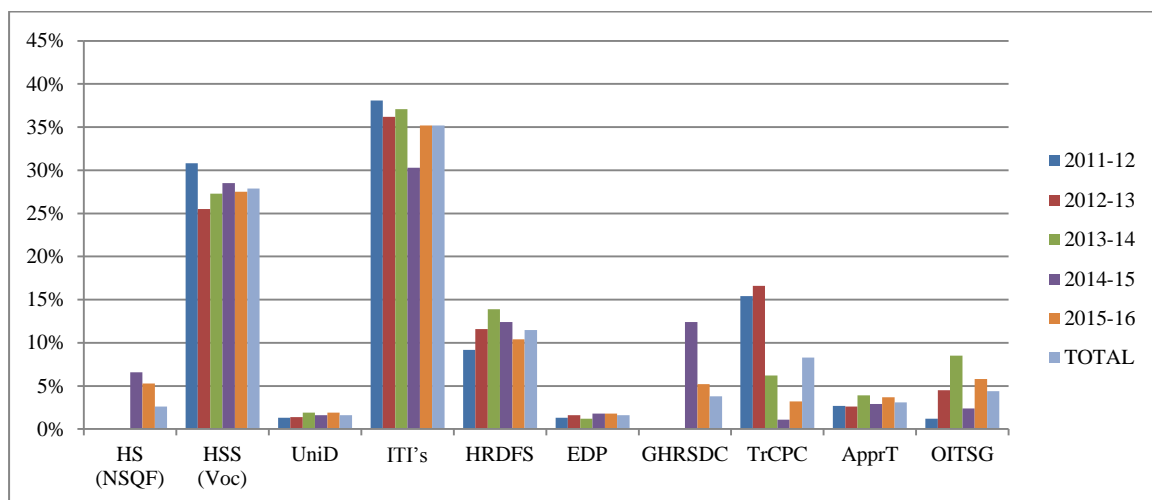


The **stream wise** enrolment of students (table 3.6 and chart 3.11) shows that most of the students are enrolled in ITI (35.2%) followed Vocational (27.9%) and the least number of students are enrolled in EDP (1.6%).

**Table 3.7 Enrolment of Students (location & District wise)**

| Sr.No | Institutions/ Industries | Location | | | | District | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Urban | | Rural | | North | | South | |
| | | N | % | N | % | N | % | N | % |
| 1 | HS (NSQF) | 301 | **25.1%** | 899 | **74.9%** | 539 | **44.9%** | 661 | **55.1%** |
| 2 | HSS (Voc) | 6399 | **48.6%** | 6773 | **51.4%** | 6016 | **45.7%** | 7156 | **54.3%** |
| 3 | UNID | 373 | **49.7%** | 377 | **50.3%** | 494 | **65.9%** | 256 | **34.1%** |
| 4 | ITI's | 8063 | **48.5%** | 8562 | **51.5%** | 10208 | **61.4%** | 6417 | **38.6%** |
| 5 | HRDFS | 2225 | **41.0%** | 3204 | **59.0%** | 3963 | **73.0%** | 1466 | **27.0%** |
| 6 | EDP | 347 | **46.2%** | 404 | **53.8%** | 509 | **67.8%** | 242 | **32.2%** |
| 7 | GHRSDC | 161 | **9.1%** | 1626 | **90.9%** | 1419 | **79.4%** | 368 | **20.6%** |
| 8 | TrCPC | 362 | **9.2%** | 3557 | **90.8%** | 3089 | **78.8%** | 830 | **21.2%** |
| 9 | Ind/ ApprT | 1031 | **69.4%** | 455 | 30.6% | 907 | **61.0%** | 579 | **39.0%** |
| 10 | OITSG | 607 | **29.1%** | 1476 | **70.9%** | 1179 | **56.6%** | 904 | **43.4%** |
| Total | | **19869** | **42.1%** | **27333** | **57.9%** | **28323** | **60.0%** | **18879** | **40.0%** |

**Chart 3.12 Enrolment of Students (Location wise)**
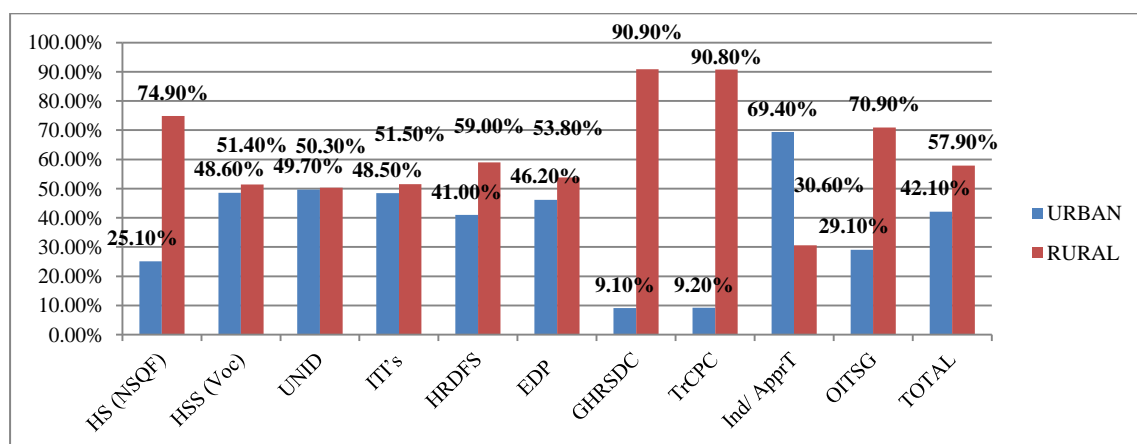
The **location wise** enrolment of students (table 3.7 and chart 3.12) shows that the majority of the students are in Rural area (57.9%) and (42.1%) from Urban area. A major difference was found in case of GHRSDC and TrCPC where in urban area enrolment is just (9.1% and 9.2%) and in rural area (90.9% and 90.8%) respectively and minor difference was also found in other streams.

**Chart 3.13 Enrolment of Students (District wise)**
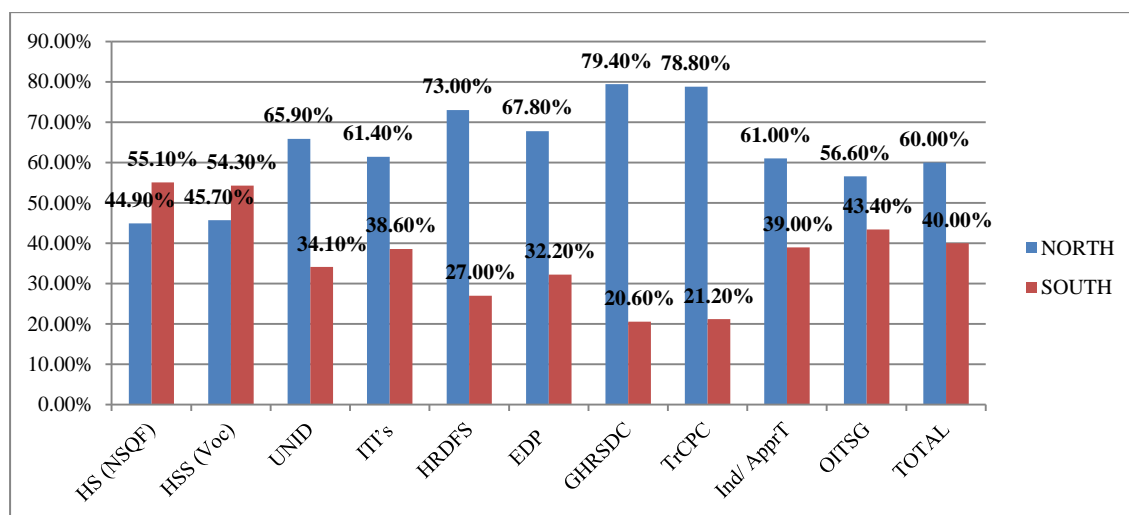


The **district wise** enrolment of students (table 3.7 and chart 3.13) also shows that majority of the students are enrolled in North district (60%) and (40%) in South district whereby the major differences were located in case of HRDFS, EDP, GHRSDC, TrCPC as North shows (73.0, 67.8, 79.4% and 78.8%) whereas in South (27.0%, 32.2%, 20.6% and 21.2%) respectively and rest of the streams HS, HSS, ITI, Industries and OITSG also shows minor difference in enrolment of students in two different districts.

**Table 3.8 Enrolment of Students (Taluka wise)**

| Sr. No | Institutions/ Industries | Taluka (North) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Pernem | | Bardez | | Tiswadi | | Bicholim | | Sattari | | Ponda | |
| | | N | % | N | % | N | % | N | % | N | % | N | % |
| 1 | HS (NSQF) | 66 | 5.5% | 49 | **4.1%** | 61 | 5.1% | 60 | 5.0% | 204 | **17.0%** | 99 | 8.2% |
| 2 | HSS (Voc) | 707 | 5.4% | 1996 | 15.2% | 1092 | 8.3% | 607 | 4.6% | 207 | 1.6% | 1407 | 10.7% |
| 3 | UNID | 22 | 2.9% | 184 | 24.5% | 193 | **25.8%** | 30 | 4.0% | 7 | **0.9%** | 55 | 7.3% |
| 4 | ITI's | 1114 | 6.7% | 1264 | 7.6% | 1663 | 10.0% | 2394 | **14.4%** | 1562 | 9.4% | 2228 | 13.4% |
| 5 | HRDFS | 592 | 10.9% | 1576 | **29.0%** | 859 | 15.8% | 568 | 10.5% | - | - | 368 | 6.8% |
| 6 | EDP | 18 | 2.4% | 189 | **25.2%** | 113 | 15.0% | 96 | 12.8% | 8 | 1.0% | 72 | 9.6% |
| 7 | GHRSDC | 184 | 10.3% | 51 | 2.9% | 439 | **24.6%** | 367 | 20.5% | 255 | 14.3% | 124 | 6.9% |
| 8 | TrCPC | 186 | 4.8% | 248 | 6.3% | 116 | 3.0% | 918 | 23.4% | 942 | **24.0%** | 679 | 17.3% |
| 9 | ApprT | 12 | 0.8% | 229 | 15.4% | 250 | 16.8% | 87 | 5.9% | 40 | 2.7% | 289 | 19.4% |
| 10 | OITSG | 93 | 4.5% | 36 | **1.7%** | 768 | **36.9%** | 58 | 2.8% | 159 | 7.6% | 70 | 3.4% |
| Total | | 3015 | 6.4% | 5845 | 12.3% | 5574 | 11.7% | 5223 | 11.0% | 3401 | 7.2% | 5418 | 11.4% |

**69**

| Sr. No | Institutions / Industries | Taluka (South) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Salcete | | Quepem | | Mormugao | | Sanguem | | Dharbandora | | Canancona | |
| | | N | % | N | % | N | % | N | % | N | % | N | % |
| 1 | HS (NSQF) | 96 | 8.0% | 164 | 13.7% | 174 | 14.5% | 159 | 13.2% | - | - | 68 | 5.7% |
| 2 | HSS (Voc) | 4696 | **35.7%** | 851 | 6.5% | 1162 | 8.8% | 145 | 1.1% | 104 | **0.8%** | 198 | 1.5% |
| 3 | UNID | 148 | 19.8% | 25 | 3.3% | 41 | 5.5% | 16 | 2.1% | 19 | 2.6% | 10 | 1.3% |
| 4 | ITI's | 2094 | 12.6% | 1597 | 9.6% | 831 | **5.0%** | - | - | - | - | 1878 | 11.3% |
| 5 | HRDFS | 1122 | 20.7% | 284 | 5.2% | 60 | **1.1%** | - | - | - | - | - | - |
| 6 | EDP | 162 | 21.6% | 42 | 5.6% | 38 | 5.1% | - | - | 4 | **0.5%** | 9 | 1.2% |
| 7 | GHRSDC | 10 | **0.6%** | 61 | 3.4% | 112 | 6.3% | 92 | 5.1% | 20 | 1.1% | 72 | 4.0% |
| 8 | TrCPC | 70 | 1.8% | 271 | 6.9% | 44 | 1.1% | 29 | 0.8% | 400 | 10.2% | 16 | **0.4%** |
| 9 | ApprT | 454 | **30.6%** | 8 | 0.6% | 98 | 6.6% | 4 | **0.2%** | 5 | 0.3% | 10 | 0.7% |
| 10 | OITSG | 455 | 21.8% | 84 | 4.0% | - | - | 151 | 7.3% | 131 | 6.3% | 78 | 3.7% |
| **Total** | | 9337 | **19.7%** | 3414 | 7.2% | 2577 | 5.4% | 596 | **1.3%** | 683 | 1.4% | 2368 | 5.0% |

**Chart 3.14 Enrolment of Students (Taluka wise)**
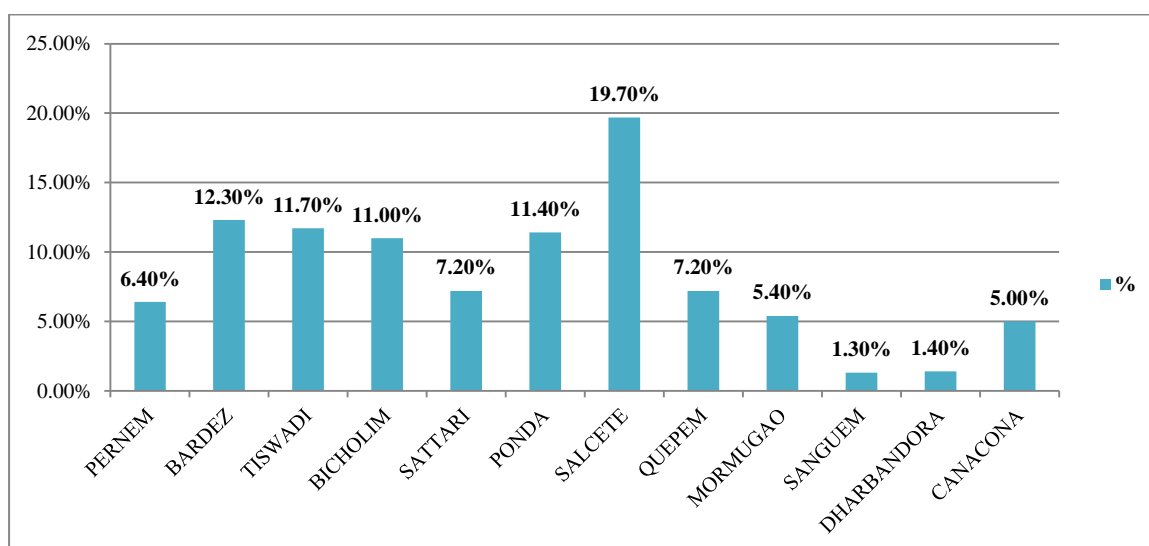


The **taluka wise** enrolment of students (table 3.8 and chart 3.14) depicts that majority of the students are enrolled in Salcete taluka (19.7%) and least of the students enrolled in Sanguem taluka (1.3%). The remaining streams like Bardez, Tiswadi, Bicholim and Ponda has shown more or less similar number of students' enrolment. It indicates that there exists a difference in enrolment of students whether it steams wise, location wise, district wise, location wise and taluka wise.

**So, to conclude objective no.1 for present scenarios of skill development programmes in Goa indicates that the institutions as well as students are not equally distributed. The students show unequl distribution either on basis of courses offered or enrolment in the state. A difference is noticed in the institutions allotted in the state of Goa by the respective authorities under skill development programmes.**

A difference is noticed in institutions with regards to streams, location, district and taluka. Similarly there is a difference in trades allotted to the various institutions stream wise, location wise, district wise and taluka wise. So also in the case of enrolment of students in the various institutions all over Goa there is a difference of skill programmes in stream wise, location wise, district wise and so also taluka wise. Thus based upon the above brief findings, we can conclude that the *"skill development programmes are unequally distributed.* It means that the improper allotment of institutions is an important cause for the unbalanced situation of courses as well as enrolment of students stream wise, location wise, District wise and Taluka wise.

### 3.15.3 Conclusion:

This chapter deals with the overall view of the skill development programmes at the national and state level which includes structure of skill development in India, various ministries involved in skill development training programmes, meaning of skill and skill development, various skills imparted at national and state level, the formation of ministry of Skill Development and Entrepreneurship, tabular representation and the present scenario of skill development programmes in the state of Goa based on Institutions, Trades and Enrolment of students.

**4.1 Introduction**

Skill is the ability to carry out a task with pre-determined results often within a given amount of time, energy, or both. Skills can often be divided into domain general and domain-specific skills. Skill usually requires certain environmental stimuli and situations to assess the level of skill being shown and used. Knowledge is the outcome of assimilation of information through learning. Skills mean the ability to apply knowledge and use know-how to complete task and solve problems.

This chapter deals with the second objectives of the study to know the perspectives of Institutional heads based on various statements prepared by the researcher on skill programmes carried out by the various institutions in the state of Goa.

**4.2 Social profile**

To evaluate perspectives of skill development programmes in Goa, Head of the Institutions/Departments (HOD) were considered to know their perspectives on the prevailing scenario of skill development training programmes in the state of Goa. The Head of the Departments were asked to give their opinions through structured close ended questionnaires. A total of 81 Institutional Head replied to the questionnaires which were considered for the study from 10 different streams and 12 different talukas in Goa. The below analysis shows the various tables, interpretation and findings of the study which is shown below:-

**Table No. 4.1: Social Profile**

| Sr. No. | Particulars | Frequency | Percentage |
|---------|-------------|-----------|------------|
| Gender | Male | 50 | 62% |
| | Female | 31 | 38% |
| | **Total** | **81** | **100%** |
| Location | Rural | 47 | 58% |
| | Urban | 34 | 42% |
| | **Total** | **81** | **100%** |
| District | North | 50 | 62% |
| | South | 31 | 38% |
| | **Total** | **81** | **100%** |
| Streams | SSC (NSQF) | 24 | 30% |
| | HSSC (Voc) | 16 | 20% |
| | UNID | 1 | 1% |
| | ITI's | 6 | 7% |
| | HRDFS | 18 | 22% |
| | EDP | 2 | 2% |
| | GHRSDC | 1 | 1% |
| | TrCPC | 7 | 9% |
| | OITSG | 4 | 5% |
| | ApprT | 2 | 3% |
| | **Total** | **81** | **100%** |

*(Source: Field Work)*

Table No. 4.1 depicts that most of the HOD's are male whereas the female respondents are less. Out of the 81 HOD's selected for the study in different institutions, 50 (62%) were male and only 31 (38%) were female. The questionnaire was served to the Head of the Departments irrespective of whether it is male or female. But, the survey shows that there are more male HOD's rather than female HOD's in the various institutions.

Table No. 4.1 shows the location of the Institutions selected for the study. The total numbers of respondents were 81. The institutions were randomly selected from both areas i.e. rural and urban area. Majority of the respondents i.e. 47 (58%) of the Head of the Institutes were from the Rural and 34 (42%) were taken from the urban area.

Table No. 4.1 reveals that there are only two districts in Goa i.e. North Goa and South Goa. The survey was undertaken in both the district to know the opinions of the Head of the Departments skill courses imparted in Goa. The above table shows that out of 81 institutes, 50 heads of institutions are from North Goa and 31 Heads are taken from South Goa which means 62% and 38% heads of institutes are considered from North Goa and South Goa respectively.

Table No. 4.1 shows that 81 institutes were considered for the study from 10 different categories of institutes offering skill courses among other institutes in the state of Goa. In the above table the selection of different institutes is based on the Salant and Dillman method. The selection of institutes is done on the basis of number of institutes prevailing in the respective category of the stream. Higher the number of institutes more is the number of institutes selected as sample size whereas less the number of institutes less is the selected sample size. In the above table it is most of the institutions selected (30%) are from High school, 22% are selected from the HRDF Society, 20% are considered from Higher Secondary Schools, 9% from training cum production Centre, 7% from ITI's, 5% from Entrepreneurship Development Programmes and other Initiatives taken by State Government, 1% from University Department and Goa Human Resource Skill Development Corporation. The number of institutes for each category is calculated on the basis of a percentage of the total number of institutes in the respective category.

During the personal interaction with the respondents for the interview revealed that majority of the institutes have started skill course well before 2013-14 in Goa which means Goa's educational experts have realized the importance of skill courses well in advance for the betterment of students and also to fulfill requirement of the industries.

## 4.3 MoU with industries

It is also observed that most of the institutions do not have any sort of Memorandum of understanding (MoU) with the industries which is very much needed for the improvement of skill development programmes and also to upgrade skills and knowledge. Students cannot learn without practicing on the job especially in the industries. It means that institution still depends on the practical training offered in the institutions and still do not provide industry atmosphere to the students. Students can learn better outside the institute when they placed on the practical job. Only few institutions have MoU with some industry.

## 4.4 Placement cell

The study shows that most of the institutes do not have placement in the institution. It means that most of the institutes are still not serious about providing job to the students after completion of course. The main aim of the skill courses is to provide job once students complete their courses which means students need to search for the job after completion of their course. Institutes should take active responsibility in providing job in their respective field. The Head of the institutions opined that most of the students get their first job soon after completion of the job or it takes roughly 1 year. The Headmasters in the High Schools disclosed that the courses were introduced recently at std. IX and X which will take probably 3 years or more to get the job. Even the students are immature to take up the job or to start a business. But they hope that students can take up jobs after std. XII students which means students will take minimum 4 years to accept any sort of job.

## 4.5 Testing Hypothesis

The present chapter tries to understand the perspectives of Institutional Heads on skill programmes conducted in the state and their future benefit for the students after passing out through their respective course they study. To verify the second objective of the study i.e. *to find the perspectives of Institutional Heads for skill development programmes conducted in the state of Goa,* the following hypothesis was formed:

**H0**: *Perspectives of Institutional Heads for skill development programmes is favorable.*
**H1:** *Perspectives of Institutional Heads for skill development programmes is unfavourable.*

Further, based on the main hypothesis mentioned above, five sub-hypothesis were framed and tested with various statistical tools to serve the objective. The sub-hypotheses were tested with reference to the Gender, Locality, District, Taluka and Stream. The data collected from the Head of the institutions was grouped into ten important areas to find any difference in the perspectives and also with regards to statement framed whether they are favourable or unfavourable towards skill development programmes conducted in the state of Goa. The various aspects considered for the study are mentioned below which are as follows;

*1) Students acquire enough job skills after the completion of the course.*

*2) Training/internship provided is sufficient for them to place on the job.*

*3) Confident that the trained students are competent to take up the job.*

*4) Curriculum framed by the authority is relevant to the job required by the industries.*

*5) Changes in course should be made to meet the expectations of the employer.*

*6) Need to proper implementation of skill development mission in the state.*

*7) Skill development courses are better than general courses to get jobs.*

*8) Skill courses have very much scope in the present employment field.*

*9) Students with skill courses are more competent than the general stream.*

*10) Trained students get job soon after completion of course.*

To collect the information on the above areas a set of ten set of statements were designed. The respondents were asked to rank it from Strongly Disagree to Strongly Agree on the basis of five point Likert scale. **81** Heads of the institutions from all over Goa belonging to High School, Higher Secondary, University Departments, ITI, HRDFS, EDP, GHRDC, Training cum Production Centre, Apprenticeship training institutes and Other initiatives taken by the State Government were surveyed. The collected data was then divided into five categories based: **Gender** (Male and Female), **Location** (Urban and Rural), **District** (North and South), **12 Taluka** (Pernem, Bardez, Tiswadi, Bicholim, Sattari, Ponda, Salcete, Quepem, Mormugao, Sanguem, Dharbandora and Canacona), **10 Streams** (High Schools-OITSG). The following sections give the analysis of the data along with the comments according to: **Gender,** Location, District, Taluka and Stream. In case of Gender, Location and District, *Mean* **scores** and *Independent sample t- test* were used where as in case of Taluka and Stream one way *ANOVA and Post hoc test* were used to test the hypothesis.

## 4.6 Analysis

In order to test the hypothesis, the data collected was classified and cross tabulated based on the Quantitative data, and tested separately by using *frequency table, Mean score, Independent sample t-test, One way ANOVA and Post hoc test* to see whether there is any difference between the attributes under study. The Subsequent sections give the explanation on the analysis of the above mentioned aspects.

### 4.6.1 Gender

The information collected from the students was classified based on Male and Female students. Out of total 81 students, 51 were Male and the remaining 30 were Female students. The following paragraphs give a brief analysis based upon the responses given by the institutional heads. The Table **4.2** gives the *quantitative data* along with the percentages, **Table 4.3** gives the *Mean* score between the Male and Female Institutional heads and Table **4.4** gives their **t-test** values between Male and Female respondents.

**H01: There is no significant difference in the perspectives of Institutional Heads with relation to gender.**

**Table 4.2: Table showing frequencies of Institutional Heads (Gender)**

| Statements | Scale | Gender | | | | | |
|---|---|---|---|---|---|---|---|
| | | Male | | Feamale | | Total | |
| | | N | % | N | % | N | % |
| Students acquire enough job skills after the completion of the course. | SDA | 1 | 2.0% | 1 | 3.2% | 2 | 2.5% |
| | DA | 2 | 4.1% | 5 | 16.1% | 7 | 8.8% |
| | N | 5 | 10.2% | 3 | 9.7% | 8 | 10.0% |
| | A | 31 | 63.3% | 16 | 51.6% | 47 | 58.8% |
| | SA | 10 | 20.4% | 6 | 19.4% | 16 | 20.0% |
| Training/internship provided is sufficient for them to place on the job. | SDA | 1 | 2.0% | 1 | 3.2% | 2 | 2.5% |
| | DA | 5 | 10.2% | 7 | 22.6% | 12 | 15.0% |
| | N | 10 | 20.4% | 8 | 25.8% | 18 | 22.5% |
| | A | 24 | 49.0% | 11 | 35.5% | 35 | 43.8% |
| | SA | 9 | 18.4% | 4 | 12.9% | 13 | 16.2% |
| Confident that the trained students are competent to take up the job. | SDA | 1 | 2.0% | 1 | 3.2% | 2 | 2.5% |
| | DA | 3 | 6.0% | 5 | 16.1% | 8 | 9.9% |
| | N | 5 | 10.0% | 3 | 9.7% | 8 | 9.9% |
| | A | 28 | 56.0% | 14 | 45.2% | 42 | 51.9% |
| | SA | 13 | 26.0% | 8 | 25.8% | 21 | 25.9% |
| Curriculum framed by the authority is relevant to the job required by the industries. | SDA | 2 | 4.1% | 1 | 3.2% | 3 | 3.8% |
| | DA | 3 | 6.1% | 6 | 19.4% | 9 | 11.2% |
| | N | 6 | 12.2% | 3 | 9.7% | 9 | 11.2% |
| | A | 28 | 57.1% | 15 | 48.4% | 43 | 53.8% |
| | SA | 10 | 20.4% | 6 | 19.4% | 16 | 20.0% |
| Changes in courses should be made to meet the expectations of the employer. | SDA | 3 | 6.1% | 0 | 0.0% | 3 | 3.8% |
| | DA | 9 | 18.4% | 5 | 16.1% | 14 | 17.5% |
| | N | 6 | 12.2% | 8 | 25.8% | 14 | 17.5% |
| | A | 19 | 38.8% | 12 | 38.7% | 31 | 38.8% |
| | SA | 12 | 24.5% | 6 | 19.4% | 18 | 22.5% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Is it a need of the hour to proper implementation of skill development mission in the state. | SDA | 1 | 2.0% | 0 | 0.0% | 1 | 1.2% |
| | DA | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | N | 2 | 4.1% | 1 | 3.2% | 3 | 3.8% |
| | A | 23 | 46.9% | 14 | 45.2% | 37 | 46.2% |
| | SA | 23 | 46.9% | 16 | 51.6% | 39 | 48.8% |
| Skill development courses are better than general courses to get jobs. | SDA | 1 | 2.0% | 0 | 0.0% | 1 | 1.2% |
| | DA | 2 | 4.1% | 0 | 0.0% | 2 | 2.5% |
| | N | 4 | 8.2% | 9 | 29.0% | 13 | 16.2% |
| | A | 20 | 40.8% | 9 | 29.0% | 29 | 36.2% |
| | SA | 22 | 44.9% | 13 | 41.9% | 35 | 43.8% |
| Skill courses have very much scope in the present employment field. | SDA | 1 | 2.0% | 0 | 0.0% | 1 | 1.2% |
| | DA | 1 | 2.0% | 1 | 3.2% | 2 | 2.5% |
| | N | 2 | 4.1% | 7 | 22.6% | 9 | 11.2% |
| | A | 21 | 42.9% | 12 | 38.7% | 33 | 41.2% |
| | SA | 24 | 49.0% | 11 | 35.5% | 35 | 43.8% |
| Students with skill courses are more competent than the general stream. | SDA | 1 | 2.0% | 0 | 0.0% | 1 | 1.2% |
| | DA | 2 | 4.1% | 3 | 9.7% | 5 | 6.2% |
| | N | 7 | 14.3% | 11 | 35.5% | 18 | 22.5% |
| | A | 19 | 38.8% | 10 | 32.3% | 29 | 36.2% |
| | SA | 20 | 40.8% | 7 | 22.6% | 27 | 33.8% |
| Trained students get job soon after completion of course. | SDA | 1 | 2.0% | 0 | 0.0% | 1 | 1.2% |
| | DA | 4 | 8.0% | 7 | 22.6% | 11 | 13.6% |
| | N | 14 | 28.0% | 8 | 25.8% | 22 | 27.2% |
| | A | 20 | 40.0% | 10 | 32.3% | 30 | 37.0% |
| | SA | 11 | 22.0% | 6 | 19.4% | 17 | 21.0% |

*(Source: Primary Survey)*

*(Note: All sample respondents have not responded, so total sample respondent are less.)*

**Table 4.3: Table showing Group statistics of Institutional Heads (Gender)**

| Statements | Gender | N | Mean | Std. Dev. |
|---|---|---|---|---|
| Students acquire enough job skills after the completion of the course. | Male | 49 | 3.96 | .815 |
| | Feamale | 31 | 3.68 | 1.077 |
| Training/internship provided is sufficient for them to place on the job. | Male | 49 | 3.71 | .957 |
| | Feamale | 31 | 3.32 | 1.077 |
| Confident that the trained students are competent to take up the job. | Male | 50 | 3.98 | .892 |
| | Feamale | 31 | 3.74 | 1.125 |
| Curriculum framed by the authority is relevant to the job required by the industries. | Male | 49 | 3.84 | .965 |
| | Feamale | 31 | 3.61 | 1.116 |
| Changes in courses should be made to meet the expectations of the employer. | Male | 49 | 3.57 | 1.225 |
| | Feamale | 31 | 3.61 | .989 |
| Need to proper implementation of skill development mission in the state. | Male | 49 | 4.37 | .755 |
| | Feamale | 31 | 4.48 | .570 |
| Skill development courses are better than general courses to get jobs. | Male | 49 | 4.22 | .919 |
| | Feamale | 31 | 4.13 | .846 |
| Skill courses have very much scope in the present employment field. | Male | 49 | 4.35 | .830 |
| | Feamale | 31 | 4.06 | .854 |
| Students with skill courses are more competent than the general stream. | Male | 49 | **4.12** | .949 |
| | Feamale | 31 | **3.68** | .945 |
| Trained students get job soon after completion of course. | Male | 50 | 3.72 | .970 |
| | Feamale | 31 | 3.48 | 1.061 |

**Table 4.4: Table showing t-test analyses Institutional Heads (Gender)**

| Statements | | Levene's Test for Equality of Variances | | t-test for equality of variance | | | |
|---|---|---|---|---|---|---|---|
| | | F | Sig. | T | Df | Sig. (2-tailed) | Null hypothesis (H0) |
| Students acquire enough job skills after the completion of the course. | Equal variances assumed | 6.014 | .016 | 1.328 | 78 | .188 | Retain |
| | Equal variances not assumed | | | 1.248 | 51.489 | .218 | |
| Training/internship provided is sufficient for them to place on the job. | Equal variances assumed | 1.533 | .219 | 1.698 | 78 | .093 | Retain |
| | Equal variances not assumed | | | 1.654 | 58.393 | .104 | |
| Confident that the trained students are competent to take up the job. | Equal variances assumed | 4.380 | .040 | 1.055 | 79 | .294 | Retain |
| | Equal variances not assumed | | | 1.000 | 53.027 | .322 | |
| Curriculum framed by the authority is relevant to the job required by the industries. | Equal variances assumed | 2.659 | .107 | .951 | 78 | .345 | Retain |
| | Equal variances not assumed | | | .920 | 57.111 | .361 | |
| Changes in courses should be made to meet the expectations of the employer. | Equal variances assumed | 2.060 | .155 | -.159 | 78 | .874 | Retain |
| | Equal variances not assumed | | | -.166 | 73.311 | .868 | |
| Need to proper implementation of skill development mission in the state. | Equal variances assumed | .501 | .481 | -.736 | 78 | .464 | Retain |
| | Equal variances not assumed | | | -.783 | 75.477 | .436 | Retain |
| Skill development courses are better than general courses to get jobs. | Equal variances assumed | .079 | .779 | .466 | 78 | .642 | |
| | Equal variances not assumed | | | .475 | 67.853 | .636 | Retain |
| Skill courses have very much scope in the present employment field. | Equal variances assumed | .041 | .841 | 1.466 | 78 | .147 | |
| | Equal variances not assumed | | | 1.457 | 62.632 | .150 | Retain |
| Students with skill courses are more competent than the general stream. | Equal variances assumed | .474 | .493 | 2.046 | 78 | **.044** | **Reject** |
| | Equal variances not assumed | | | 2.049 | 64.203 | **.045** | |
| Trained students get job soon after completion of course. | Equal variances assumed | 1.177 | .281 | 1.028 | 79 | .307 | Retain |
| | Equal variances not assumed | | | 1.006 | 59.394 | .318 | |

## 4.6.1.1 Students acquire enough job skills.

In table 4.2 an attempt was made to find the opinions from the Head of the Institutions (Gender wise) with regards to the level of skill acquire by the students after the completion of course. It is observed that majority of the respondents (male and female) i.e. 58.8% Agreed and 20% strongly Agreed whereas 10%, 8.8 % and 2.5% were neutral, disagreed and strongly disagreed respectively. It also shows that majority of the institutional heads i.e. around 63.3% of Males and 51.6% of Females respondents agreed while small percentage of respondents Male and Female were either neutral or unfavourale. It means that majority (i.e. 78.8%) Institutional Heads (male and female) feel that students acquire enough job skill through skill courses after the completion of the course.

The **_Mean_** score between the Male and Female respondents (table 4.3) is 3.96 and 3.68 respectively. It means that both sexes do not have much difference in their opinions and feels that students do acquire sufficient job knowledge after completion of their respective course. It is the male respondent who feels that students acquire enough job knowledge than female respondents.

The data was further analyzed in table 4.4 with the help of '_t_' test. In this case, the _F_ ratio for Levene's test for equality of variance is significant _(p<0.05)_ and therefore we take the '_t_' value corresponding to equal variance not assumed. The _P_-value in this case is 0.218 which is greater than 0.05, thus we can say that both sexes do not have any significant difference in their opinions whether it is a male and female respondents, they feels that students do acquire enough job skills during their course work. It means that there is no significant difference in opinion between gender towards students acquiring enough job skills after the completion of course work.

### 4.6.1.2 Training/internship provided is sufficient.

The data collected in table 4.2 shows that 43.8% and 16.2% of the respondents agreed and strongly agreed whereas 15% disagreed, 2.5% strongly disagreed and 22.5% of the respondents were neutral. It also reveals that majority of the respondent i.e. male 49.0% and Female 35.5% agreed and remaining respondents were neutral or unfavourable. It means that the majority of the respondents (60%) were in favour of internship provided in the industry or practical training by the institutes is sufficient for them to place on their respective job. Even though Head of the Departments feel that training is sufficient, they also opined during the personal interview that it is necessary to make internship mandatory for one term for each and every course irrespective of any stream.

Further, the _Mean_ score between Male and Female institutional heads (table 4.3) is 3.71 and 3.32, which implies that between Male and Female students, the male respondents who are more favourable towards internship provided by the institutions is sufficient for the students to place them on the job than female respondents. The reason may be wherever male institutional heads are working in the institutions there it may be the students have given a positive feedback of internship. However overall results shows that both sexes of respondents are happy towards internship/ training provided is sufficient.

In case of the *'t'* test analyses, the *F* ratio for Levene's test for equality of variance (table 4.4) is not significant (0.219). So also *'t'* value for equality of means is 0.093 and its corresponding *p* value is 0.104 which is higher than 0.05 at 5 % level of significance. It means that there is no significant difference between the Male and Female respondents towards training or internship provided and they believe that it is quite sufficient to place students on the job.

### 4.6.1.3 Confidence in students to take up job.

The overall result in table 4.2 depicts that 51.9% and 25.9% of the respondents agreed and strongly agreed respectively whereas only 9.9% and 2.5% disagreed and strongly agreed while 9.9% of the respondents were neutral. The majority (56.0%) of male and (45.2%) of female respondents were agreed. It indicates that majority of male and female respondents (77.8%) are in favour of student's confidence for taking up job in their respective skill courses.

The *mean* score between Male and Female respondents (table 4.3) is 3.98 and 3.74 respectively. It means that the level of confidence in Male respondents is higher than the Female respondents towards students in taking up the job.

The *F* ratio for Levene's test for equality of variance (table 4.4) is significant (0.040) which is less than 0.05 at 5% level of significance. Hence we take the *'t'* value of equal variance not assumed. The *'t'* value 1.000 and its corresponding *p* value is 0.322 which is higher than 0.05 at 5% level of significance It means that the two sexes are not significantly different in their opinions towards student's competency to take up job in their respective field. Both sexes of respondents have enough confidence in students that the students are fully competent to take up any sort of job in the area of training they are trained.

### 4.6.1.4 Curriculum framed.

Table 4.2 reveals that 53.8% of the respondents agreed and 20% strongly agreed, 11.2% of the respondents were neutral, 11.2% disagreed and only 3.8% strongly disagreed. It also depicts that majority of males (57.1%) and Females (48.4%) agreed that that curriculum framed by the authority is as per the requirement of the industries. It means that majority of the respondents (i.e. 73.8%) and both sections of respondents are favourable to the curriculum framed by the concern authority is relevant and as per the requirement of the industries.

The *Mean* score between Male and Female respondents (table 4.3) is 3.84 and 3.61 respectively. This also shows that there does not exist much difference in the perspectives between male and female institutional heads. But between Male and Female respondents, Male respondents have an edge over Female respondents as far as framing of curriculum is concerned. Male respondents are more favourable towards framing of curriculum is relevant to the requirement of industries than female respondents.

The Levene's test for equality of variance (table 4.4) is not significant (0.107) where the *P* value is greater than 0.05. The *'t'* value is 0.951 and the corresponding p value is 0.345 which is not significant. It means that there is no significant difference between the gender of the institutional heads and the curriculum framed by the concern authority.

## 4.6.1.5 Changes required to meet expectations of the employers.

Table 4.2 indicates that 38.8% and 22.5% of the respondents agreed and strongly agreed respectively, 17.5% disagreed, 3.8% strongly disagreed and 17.5% were neutral. So also majority of males (38.8%) and Females (38.7%) were agreed to the comment that changes in the courses need to be made to meet the expectations of the employers. It reveals that even though majority of the respondents (commented earlier) that the curriculum is good, most of respondents (61.3%) feel that the courses should be modified from time to time as per the changing demands of the employers.

The *Mean* score between Male and Female respondents (table 4.3) is 3.57 and 3.61 respectively. This shows that there does not exist much difference in the perspectives between male and female institutional heads. But the female respondents have an edge over Male respondents towards requirement s of changes to be made to meet expectations of the employers.

In case of the '*t*' test analyses, the *F* ratio for Levene's test for equality of variance (table 4.4) is not significant i.e. 0.155 (P>0.05). The '*t*' value for equality of means is -0.159 and its corresponding *p* value is 0.874 which is higher than 0.05 at 5 % level of Significance. It means that there is no significant difference between the Male and Female respondents and requirement of changes to meet expectations of the employers. In other words both Male and Female respondents equally feels that some changes should be made to meet expectations of the employers.

### 4.6.1.6 Implementation of skill development mission

The table 4.2 shows that majority of the respondents i.e. 48.8% strongly agreed and 46.2% agreed whereby 3.8% were neutral and only 1.2% were strongly disagreed. The above table also shows that 46.9% of males and 51.6% of Females strongly agreed that there is a need to the proper implementation of skill development mission in the state. It indicates that majority of the respondents (95%) feels that skill mission is still not yet properly implemented in the state of Goa. There is a need to implement skill mission in the state with due care, so that students will get utmost benefit out of it to improve their skills and to get the jobs.

The *mean* score between Male and Female respondents (table 4.3) is 4.37 and 4.48 respectively. This reveals that there is high need to proper implementation of skill development programmes though Female respondents have shown some interest over their counterparts towards implementation of skills programmes in Goa.

According to their test analyses, the *F* ratio for Levene's test for equality of variance (table 4.4) is not significant i.e. (0.481) where P>0.05. The *'t'* value for equality of means is -0.736 and its corresponding *p* value is 0.464 which is higher than 0.05 at 5 % level of Significance. It means that there is no significant difference between Male and Female respondents towards need to proper implementation of skill development programmes. In other words both Male and Female respondent have similar opinion that skill development programmes need to be implemented properly.

### 4.6.1.7 Skill development courses are better than general courses.

From the table 4.2 to comment on whether skill courses are better than general courses to get the jobs, it is observed that 43.8% and 36.2% of the respondents strongly agreed and agreed whereas 16.2% were neutral and 2.5% and 1.2 % were disagreed and strongly disagreed. It also shows that majority of males (44.9%) and females 41.9%) were strongly agreed. It means majority of the respondents (80%) are in the favour of skill courses that they are better than the general courses. It indicates that students who are joining skill courses get jobs easier and faster as compared to students from general courses.

The *Mean* score between Male and Female respondents (table 4.3) is 4.22 and 4.13 respectively. It means that Male institutional heads are at the forefront in their opinion that skill development programmes are better than general courses than female respondents.

The Levene's test for equality of variance (table 4.4) is not significant (.779) where the *P*>0.05. The *'t'* value is 0.466 and the corresponding *p* value is 0.642 which is not significant. It means that there is no significant difference between the gender and their perspectives towards SDP are better than general courses to get job. Both the sexes of the respondents opined that skill development courses are always better and has a upper hand as compared to general courses to get jobs.

### 4.6.1.8 Scope for Skill courses

In table 4.2 an attempt was made to find if there is very much scope for skill courses in the present employment field which shows that majority 43.8% of the respondents strongly agreed and 41.2% agreed whereas 11.2% were neutral, 2.5% disagreed and 1.2% strongly disagreed. So also majority of males (49%) had strongly agreed and females (38.7%) agreed. It means that majority of the respondents (i.e. 85%) are in the favour that there is a lot of scope for skill courses in the present employment field.

The *Mean* score between male and female respondents (table 4.3) is 4.35 and 4.06 respectively which indicates that male respondents are more positive towards skill courses having more scope for employment than female respondents.

The *F* ratio for Levene's test of equality of variance (table 4.4) is not significant (0.841). The *p* value is 0.147 which is higher than 0.05 at 5 % level of significance. The *'t'* value is 1.466 and its corresponding *p* value is 0.147 which is more than 0.05, which indicates that there is no significant difference between male and Female in thinking that there is a very good scope for skill courses for the employment.

### 4.6.1.9 Skill courses students are more competent than the general stream

Table 4.2 shows whether students with skill courses are more competent than the general stream which reveals that 36.2% and 33.8% has agreed and strongly agreed while 22.5% were neutral, 6.2% were disagreed and 1.2% disagreed, so also in case of gender majority of male respondents 40.8% had strongly agreed and female respondents 35.5% agreed.  It means the majority of the respondents (70%) had accepted that students with skill courses are more competent than the general stream when they take up job.

The *mean* score between the male and female respondents (table 4.3) is 4.12 and 3.68 respectively, which shows that between the Male and Female institutional heads, the Male respondents are more favourable towards skill courses students are more competent than the general streams as compared to Female respondents.

In case of *'t'* test analyses, the *F* ratio for Levene's test for equality of variance (table 4.4) is not significant (0.493) wherein the *P* value is more than 0.05. The *'t'* value is 2.046 and its corresponding *p* value is 0.044 which is lower than 0.05. This means that there exist a significant difference between Male and female respondents who feel that skill courses students are more competent than the general course.

## 4.6.1.10 Trained students get job soon.

It is can be observed from table 4.2 that majority i.e. 37% of the institutional heads agreed and 21% strongly agreed but 27.2 % were neutral without any comments, while 13.6 disagreed and 1.2% strongly disagreed. So also 40% of male respondents and 32.3% female agreed that trained students under skill courses gets jobs soon and faster after the completion of the course.  It means majority of the respondents (58%) are favourable towards students pass out from skill courses gets job easily and soon after the completion of course.

The ***Mean*** score between the Male and Female institutional heads (table 4.3) is 3.72 and 3.48 respectively, which reveals that in-between the Male and female institutional heads, Male respondents are more favourable and to the trained students get job faster and soon after completion of the course as compared to Female respondents.

The *F* ratio for Levene's test for equality of variance (table 4.4) is not significant (0.281) i.e. *P* value is greater than 0.05 at 5% level of significance. In this case *P* value is 0.307 which is higher than 0.05 at 5% level of Significance. This means that there is no significant difference between the Male and Female respondents towards trained students getting job soon after completion of their course.

To sum up the perspectives of institutional heads on the basis of Gender, the ***Mean*** score between Male and Female respondents in most of all attributes shows that there is no much significant difference except in case of *Students with skill courses are more competent than the general stream,* there is a significant difference in mean i.e. male (4.12) and female (3.68). It means that both sexes do not have any difference in their opinion except in only one variable whereby male respondent feels that students

with skills courses are more competent than female respondents. Sig. (2-tailed) value at 5% significance shows that *p* is less than 0.05. So, whether it is a Male or Female, there is no difference between the two groups in their opinions for most of the statements tested. The data was analyzed with the help of Levene's test for equality of variance whereby in most of the attributes there is no significant difference. The *'t'* value of Independent sample t- test for equal variances in most of the attributes is also not significant except in case of *Students with skill courses are more competent than the general stream (p* is less than 0.05) i.e. (.044) and (.045) in equal variance not assumed, **thus the null hypothesis is accepted.**

### 4.6.2 Location

The total 81 students were surveyed out of which 43 (53.1%) were from urban and the remaining 38 (46.9%) were from rural areas. The following below paragraphs gives a brief analysis based upon the responses given by the Institutional heads. The Table **4.5** gives the *quantitative data* along with the percentages, Table **4.6** gives the *Mean* score between the Rural and Urban institutional heads and Table **4.7** gives their *t-test* values between rural and Urban respondents.

**H02: There is no significant difference in the perspectives of Institutional Heads of Urban and Rural areas in Goa.**

**Table 4.5: Table showing frequencies of Institutional Heads (Location)**

| Statements | Scale | Location | | | | Total | |
|---|---|---|---|---|---|---|---|
| | | Rural | | Urban | | | |
| | | N | % | N | % | N | % |
| Students acquire enough job skills after the completion of the course. | SDA | 0 | 0.0% | 2 | 5.4% | 2 | 2.5% |
| | DA | 5 | 11.6% | 2 | 5.4% | 7 | 8.8% |
| | N | 3 | 7.0% | 5 | 13.5% | 8 | 10.0% |
| | A | 26 | 60.5% | 21 | 56.8% | 47 | 58.8% |
| | SA | 9 | 20.9% | 7 | 18.9% | 16 | 20.0% |
| Training/internship provided is sufficient for them to place on the job. | SDA | 0 | 0.0% | 2 | 5.4% | 2 | 2.5% |
| | DA | 8 | 18.6% | 4 | 10.8% | 12 | 15.0% |
| | N | 9 | 20.9% | 9 | 24.3% | 18 | 22.5% |
| | A | 20 | 46.5% | 15 | 40.5% | 35 | 43.8% |
| | SA | 6 | 14.0% | 7 | 18.9% | 13 | 16.2% |
| Confident that the trained students are competent to take up the job. | SDA | 0 | 0.0% | 2 | 5.4% | 2 | 2.5% |
| | DA | 6 | 13.6% | 2 | 5.4% | 8 | 9.9% |
| | N | 5 | 11.4% | 3 | 8.1% | 8 | 9.9% |
| | A | 21 | 47.7% | 21 | 56.8% | 42 | 51.9% |
| | SA | 12 | 27.3% | 9 | 24.3% | 21 | 25.9% |
| Curriculum framed by the authority is relevant to the job required by the industries. | SDA | 0 | 0.0% | 3 | 8.1% | 3 | 3.8% |
| | DA | 7 | 16.3% | 2 | 5.4% | 9 | 11.2% |
| | N | 5 | 11.6% | 4 | 10.8% | 9 | 11.2% |
| | A | 23 | 53.5% | 20 | 54.1% | 43 | 53.8% |
| | SA | 8 | 18.6% | 8 | 21.6% | 16 | 20.0% |

| Statement | | Rural | | Urban | | Total | |
|---|---|---|---|---|---|---|---|
| | | N | % | N | % | N | % |
| Changes in course should be made to meet the expectations of the employer. | SDA | 0 | 0.0% | 3 | 8.1% | 3 | 3.8% |
| | DA | 10 | 23.3% | 4 | 10.8% | 14 | 17.5% |
| | N | 4 | 9.3% | 10 | 27.0% | 14 | 17.5% |
| | A | 18 | 41.9% | 13 | 35.1% | 31 | 38.8% |
| | SA | 11 | 25.6% | 7 | 18.9% | 18 | 22.5% |
| Need to proper implementation of skill development mission in the state. | SDA | 0 | 0.0% | 1 | 2.8% | 1 | 1.2% |
| | DA | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | N | 1 | 2.3% | 2 | 5.6% | 3 | 3.8% |
| | A | 17 | 38.6% | 20 | 55.6% | 37 | 46.2% |
| | SA | 26 | 59.1% | 13 | 36.1% | 39 | 48.8% |
| Skill development courses are better than general courses to get jobs. | SDA | 0 | 0.0% | 1 | 2.8% | 1 | 1.2% |
| | DA | 0 | 0.0% | 2 | 5.6% | 2 | 2.5% |
| | N | 6 | 13.6% | 7 | 19.4% | 13 | 16.2% |
| | A | 16 | 36.4% | 13 | 36.1% | 29 | 36.2% |
| | SA | 22 | 50.0% | 13 | 36.1% | 35 | 43.8% |
| Skill courses have very much scope in the present employment field. | SDA | 0 | 0.0% | 1 | 2.8% | 1 | 1.2% |
| | DA | 0 | 0.0% | 2 | 5.6% | 2 | 2.5% |
| | N | 4 | 9.1% | 5 | 13.9% | 9 | 11.2% |
| | A | 18 | 40.9% | 15 | 41.7% | 33 | 41.2% |
| | SA | 22 | 50.0% | 13 | 36.1% | 35 | 43.8% |
| Students with skill courses are more competent than the general stream. | SDA | 0 | 0.0% | 1 | 2.8% | 1 | 1.2% |
| | DA | 2 | 4.5% | 3 | 8.3% | 5 | 6.2% |
| | N | 8 | 18.2% | 10 | 27.8% | 18 | 22.5% |
| | A | 17 | 38.6% | 12 | 33.3% | 29 | 36.2% |
| | SA | 17 | 38.6% | 10 | 27.8% | 27 | 33.8% |
| Trained students get job soon after completion of course. | SDA | 0 | 0.0% | 1 | 2.7% | 1 | 1.2% |
| | DA | 7 | 15.9% | 4 | 10.8% | 11 | 13.6% |
| | N | 10 | 22.7% | 12 | 32.4% | 22 | 27.2% |
| | A | 18 | 40.9% | 12 | 32.4% | 30 | 37.0% |
| | SA | 9 | 20.5% | 8 | 21.6% | 17 | 21.0% |

*(Source: Primary survey)*

*(Note: All sample respondents have not responded, so total sample respondent are less.)*

**Table 4.6: Table showing Group statistics of Institutional Heads (Location)**

| Statements | Location | N | Mean | Std. Deviation |
|---|---|---|---|---|
| Students acquire enough job skills after the completion of the course. | Rural | 43 | 3.91 | .868 |
| | Urban | 37 | 3.78 | 1.004 |
| Training/internship provided is sufficient for them to place on the job. | Rural | 43 | 3.56 | .959 |
| | Urban | 37 | 3.57 | 1.094 |
| Confident that the trained students are competent to take up the job. | Rural | 44 | 3.89 | .970 |
| | Urban | 37 | 3.89 | 1.022 |
| Curriculum framed by the authority is relevant to the job required by the industries. | Rural | 43 | 3.74 | .954 |
| | Urban | 37 | 3.76 | 1.116 |
| Changes in course should be made to meet the expectation sof the employers. | Rural | 43 | 3.70 | 1.103 |
| | Urban | 37 | 3.46 | 1.169 |
| Need of the hour to proper implementation of skill development mission in the state. | Rural | 44 | **4.57** | .545 |
| | Urban | 36 | **4.22** | .797 |
| Skill development courses are better than general courses to get jobs. | Rural | 44 | **4.36** | .718 |
| | Urban | 36 | **3.97** | 1.028 |
| Skill courses have very much scope in the present employment field. | Rural | 44 | **4.41** | .658 |
| | Urban | 36 | **4.03** | 1.000 |
| Students with skill courses are more competent than the general stream. | Rural | 44 | 4.11 | .868 |
| | Urban | 36 | 3.75 | 1.052 |
| Trained students get job soon after completion of course. | Rural | 44 | 3.66 | .987 |
| | Urban | 37 | 3.59 | 1.040 |

**Table 4.7: Table showing t-test analyses of Institutional Heads (Location)**

| Statements | | Levene's Test for equality of variance | | t-test for equality of means | | | |
|---|---|---|---|---|---|---|---|
| | | F | Sig. | T test | Df | Sig. (2-tailed) | Null hypothesis (H0) |
| Students acquire enough job skills after the completion of the course. | Equal variances assumed | .803 | .373 | .589 | 78 | .558 | Retain |
| | Equal variances not assumed | | | .582 | 71.756 | .562 | Retain |
| Training/internship provided is sufficient for them to place on the job. | Equal variances assumed | .410 | .524 | -.041 | 78 | .967 | Retain |
| | Equal variances not assumed | | | -.041 | 72.257 | .968 | Retain |
| Confident that the trained students are competent to take up the job. | Equal variances assumed | .118 | .732 | -.025 | 79 | .980 | Retain |
| | Equal variances not assumed | | | -.025 | 75.117 | .980 | Retain |
| Curriculum framed by the authority is relevant to the job required by the industries. | Equal variances assumed | .155 | .695 | -.054 | 78 | .957 | Retain |
| | Equal variances not assumed | | | -.054 | 71.324 | .957 | Retain |
| Changes in course should be made to meet the expectations of the employers. | Equal variances assumed | .098 | .755 | .937 | 78 | .352 | Retain |
| | Equal variances not assumed | | | .933 | 74.699 | .354 | Retain |
| Need to proper implementation of skill development mission in the state. | Equal variances assumed | .334 | .565 | 2.298 | 78 | **.024** | **Reject** |
| | Equal variances not assumed | | | 2.215 | 59.828 | **.031** | **Reject** |
| Skill development courses are better than general courses to get jobs. | Equal variances assumed | 1.201 | .277 | 2.000 | 78 | **.049** | **Reject** |
| | Equal variances not assumed | | | 1.931 | 60.672 | .058 | Retain |
| Skill courses have very much scope in the present employment field. | Equal variances assumed | .933 | .337 | 2.047 | 78 | **.044** | **Reject** |
| | Equal variances not assumed | | | 1.966 | 58.276 | .054 | Retain |
| Students with skill courses are more competent than the general stream. | Equal variances assumed | 2.011 | .160 | 1.694 | 78 | .094 | Retain |
| | Equal variances not assumed | | | 1.662 | 67.756 | .101 | Retain |
| Trained students get job soon after completion of course. | Equal variances assumed | .131 | .718 | .286 | 79 | .776 | Retain |
| | Equal variances not assumed | | | .285 | 75.117 | .777 | Retain |

## 4.2.2.2.1 Students acquire enough job skills.

In table 4.5 an attempt was made to find the opinions from the Head of the Institutions (Location wise) regards to the level of skill acquire by the students after the completion of course. It is observed that majority of the respondents i.e. 60.5% of Rural and 56.8% of Urban respondents agreed while small percentage of respondents from Rural and urban were either neutral or unfavourable. It means that majority of the Institutional Heads from Rural as well as Urban areas feel that students acquire enough job skill through skill courses after the completion of the course.

The *Mean* score between the Rural and Urban respondents (table 4.6) is 3.91 and 3.78 respectively. It means that there is no much difference in their opinions and it is the rural respondent who favours more that students acquire enough job knowledge than the urban respondents.

The data was further analyzed with the help of '*t*' test. In this case, the *F* ratio for Levene's test for equality of variance (table 4.7) is not significant (F=0.803, P=0.373>0.05) at 5% level of significance. The '*t*' value for equality of means is not significant (t=0.803, P=0.558>0.05) at 5 % level of significance. It means that there is no significant difference between the rural and urban respondents whereby rural as well as urban respondents are favourable with reference to perspectives on training or internship provided is quite enough to place students on the job.

### 4.6.2.2 Training/internship provided is sufficient.

The data collected was analyzed in table 4.5 which reveals that majority of the respondent i.e. Rural (46.5%) and Urban (40.5%) agreed and remaining respondents were either neutral or not favourable. It means that the majority of the respondents whether they were from rural or urban area favours that internship provided in the industry or practical training by the institutes is quite sufficient for them to place on their respective job. it is suggested that it is necessary to make internship mandatory for one term for each and every course.

Further, the *Mean* score between Rural and Urban institutional heads (table 4.6) is 3.56 and 3.57, which indicates that the respondents from two different location are more or less equally favourable towards internship provided by the institutions is sufficient for the students to place them on the job. The urban respondents are slightly more favourable than rural respondents. However overall results shows that both respondents from rural as well as urban are happy towards internship/ training provided and they feel it is sufficient.

In case of the *'t'* test analyses, the *F* ratio for Levene's test for equality of variance (table 4.7) is not significant (F=0.410, p=0.524>0.05) at 5% level of significance. The *'t'* value for equality of means is -0.041 and its corresponding *p* value is 0.967 which is more than 0.05 at 5% level of significance. It indicates that there is no significant difference between the rural and urban which means rural and urban respondents are favourable towards training or internship provided is quite sufficient for the students to take up job in their respective field.

### 4.6.2.3 Confidence in students to take up job.

Table 4.5 shows that majority (47.7%) from Rural and (56.8%) from Urban were agreed which indicates that majority of the respondents from rural and urban areas are favourable towards student's confidence for taking up job in their respective skill courses.

The *mean* score between Male and Female respondents (table 4.6) is 3.89 each. It means that the both section of respondents are equally favourable and there is no difference in their perspectives that they are confident enough that trained students are competent to take up the job.

The Levene's test for equality of variance (table 4.7) is not significant (F=0.118, p=0.732>0.05) at 5% level of significance. The 'l' value for equality of means is -0.025 and the its corresponding *p* value is 0.980 which is not significant. It means that there is no significant different between rural and urban respondents in their perspectives towards student's competency to take up job in their respective field. Both section of the respondents (rural and urban) are positively confident in the students that students are competent to take up any sort of job in the area they are trained.

### 4.6.2.4 Curriculum framed.

Table 4.5 depicts that majority of the rural respondents (53.5%) and urban respondents (54.1%) agreed to the curriculum framed by the authority is as per the requirement of the industries. It means both sections from rural as well as urban respondents are favourable to the curriculum framed by the concern authority is relevant and as per the requirement of the industries.

The *Mean* score between Rural and Urban respondents (table 4.6) is 3.74 and 3.76 respectively, which is not alarming, yet it speaks positively, as far as the opinions about skill development is concerned. This also shows that there does not exist much difference in the perspectives between rural and urban institutional heads, but the urban respondents are more favourable than rural respondents as far as framing of curriculum is concerned.

The Levene's test for equality of variance (table 4.7) is not significant (F=0.155, p=.695>0.05) at 5% level of significance. The 't' value is -0.054 and the corresponding *p* value is 0.957 which is not significant. It reveals that there is no significant difference between the rural and urban institutional heads which means both sections are favourable with reference to perspective on curriculum framed by the concern authority is relevant.

### 4.6.2.5 Changes required to meet expectations of the employers.

Table 4.5 shows that majority of the respondents from rural (41.9%) and from urban area (35.1%) were agreed to the statement that there is a need to make changes in the courses to meet the expectations of the employers. It means that the present course taught in the various institutions is not upto the mark to meet the expectations and demands of the employers. They believe that changes in the courses are required to meet the expectations of the employers.

The *Mean* score between Male and Female respondents (table 4.6) is 3.70 and 3.46 respectively. This shows that between rural and urban institutional heads, the rural respondents are more favorable than the urban respondents towards the requirement of changes to be made to meet expectations of the employers.

In case of the *'t'* test analyses, the *F* ratio for Levene's test for equality of variance (table 4.7) is not significant i.e. 0.098 and P=0.755>0.05. The *'t'* value for equality of means is not significant (t=0.937, *p*=0.352>0.05) at 5 % level of Significance. It means that there is no significant difference between the rural and urban respondents and both section of respondents are favourable towards changes are require to be made to meet expectations of the employers. In other words, both rural as well as urban respondents feels that changes should be made to meet expectations of the employers.

## 4.6.2.6 Implementation of skill development mission

The table 4.5 indicates that majority of the respondents (59.1%) of rural strongly agreed and (55.6%) of urban agreed that there is a need to the proper implementation of skill development mission in the state. It means that majority of the respondents feel that the skill development mission is not implemented properly in the state of Goa.

The *mean* score between rural and urban respondents (table 4.6) is 4.57 and 4.22 respectively. This reveals that rural respondents are more concern towards implementation of skills programmes in Goa over urban respondents.

In case of *'t'* test analyses, the *F* ratio for Levene's test for equality of variance (table 4.7) is not significant (p=0.565) whereby *P* value is more than 0.05 at 5% level of significance. The *'t'* value is 2.298 and its corresponding *p* value is 0.024 which is lower than 0.05. This indicates that there exists a significant difference between rural and urban respondents which means rural and urban respondents are unfavourable in their perspectives towards need to proper implementation of skill development mission in the state. It is the rural respondents who feel there is a need to proper implementation of skill mission and urban does not.

## 4.6.2.7 Skill development courses are better than general courses.

From the table 4.5 to comment on whether skill courses are better than general courses to get the jobs, it is observed that majority of rural respondents (50.0%) and urban 36.1%) were strongly agreed. It indicates from the perspectives of institutional heads that students with skill courses gets jobs faster than students from general courses.

The *Mean* score between rural and urban respondents (table 4.6) is 4.36 and 3.97 respectively which shows a significant difference in means among them. It indicates that rural institutional heads are at the edge in their opinion that skill development programmes are better than general courses than urban respondents.

The *F* ratio for Levene's test for equality of variance (table 4.7) is not significant (F=1.201, p=0.277>0.05) at 5% level of significance. The *'t'* value for equality of means is 2.000 and its corresponding *p* value is 0.049 which is lower than 0.05 at 5% level of significance It depicts that there is significant difference between the rural and urban respondents which means both section of the respondents are not favourable towards their perspectives on skill courses are better than general courses to get job. The rural and urban institutional heads do not agree with each other where the rural respondents feel that students with skill courses are more competent and urban respondents feel that students from general courses are better than students with skill courses to get the job.

### 4.6.2.8 Scope for Skill courses

In table 4.5 an attempt was made to find whether there is a scope for skill courses in the present employment field. The majority of rural respondents (50.0%) had strongly agreed and urban respondents (41.7%) said they agree. It means the majority of the respondents from rural as well as urban area are favourable that there is a scope for skill courses in the present employment field.

The *Mean* score between rural and urban respondents (table 4.6) is 4.41 and 4.03 respectively which indicate that rural respondents are highly favourable towards skill courses having more scope for employment than urban respondents.

The *F* ratio for Levene's test for equality of variance (table 4.7) is not significant (F=0.933, p=0.337>0.05) at 5% level of significance. The *'t'* value for equality of means is 2.047 and its corresponding *p* value is 0.044 which is lower than 0.05 at 5% level of significance. It indicates that there is a significant difference between rural and urban institutional heads whereby they are unfavourable towards skill courses has very much scope for employment. They are the rural institutional heads feels that there is a scope for skill courses for employment but the urban institutional heads does not agree that there is scope for skill courses for the purpose of employment.

**4.6.2.9 Skill courses students are more competent than the general stream**

Table 4.5 shows whether students with skill courses are more competent than the general stream which reveals that majority of the rural respondents (38.6%) had strongly agreed and agreed equally whereas urban respondents (33.3%) agreed. It means the majority of the respondents accept that students with skill courses are more competent than the general stream for the job.

The *mean* score between the rural and urban respondents (table 4.6) is 4.11 and 3.75 respectively, which shows that between the rural and urban institutional heads, the rural respondents are more favourable as compared to urban respondents.

In case of *'t'* test analyses, the *F* ratio for Levene's test for equality of variance (table 4.7) is not significant (2.011) and the *P* value (0.160) which is more than 0.05 at 5% level of significance. The *'t'* value is 1.694 and its corresponding *p* value is 0.094 which is higher than 0.05. This shows that there exist a no significant difference between rural and urban respondents whereby both section of respondents are favourable towards their perspective on students with skill courses are more competent than the general course.

**4.6.2.10 Trained students get job soon.**

It is can be observed from table 4.5 that majority of rural respondents agreed (40.9%) and urban respondents (32.4%) each agreed as well neutral that trained students under skill courses get job soon and faster after the completion of the course. It means majority of the respondents from rural are more favourable towards students pass out from skill courses gets job easily and soon after the completion of course than urban respondents.

The ***Mean*** score between the rural and urban institutional heads (table 4.6) is 3.66 and 3.59 respectively, which indicates that in-between the respondents from two districts the rural respondents are more favourable and they feel that trained students get job faster and soon after completion of the course as compared to urban respondents.

The *F* ratio for Levene's test for equality of variance (table 4.7) is not significant (F=0.131, p=0.718> 0.05) at 5% level of significance. The *'t'* value for equality of variance is 0.286 and its corresponding *P* value is 0.776 which is higher than 0.05 at 5% level of Significance. This means that there is no significant difference between the rural and urban respondents and both of them are favourable towards trained students getting job soon after completion of their course.

To sum up the perspectives of institutional heads on the basis of location, the data was analyzed with the help of Levene's test for equality of variance whereby in most of the attributes it is not significant. The 't' value of Independent sample t- test for equal variances in most of the attributes are not significant except in case of three attributes i.e. *need to proper implementation of skill development programmes in the state, Skill development courses are better than general courses to get jobs and Students with skill courses are more competent than the general stream.* The Sig. (2-tailed) value at 5% significance *'p'* is less than 0.05 i.e. 0.024, 0.049, 0.044 respectively. The **Mean** score between Rural and Urban Head of the institutions in case of most of the attributes shows that there is no much more difference except in case of three statements i.e. *Is it a need of the hour to proper implementation of skill development mission in the state, Skill development courses are better than general courses to get jobs and Students with skill courses are more competent than the general stream* there is a difference in mean i.e. Rural (4.57, 4.36 and 4.41) and Urban (4.22, 3.97 and 4.03) respectively. It means that respondents from both regions do not differ in their opinion for most of the statements except in three statements a difference is noticed whereby mean value of rural respondents is more than urban respondents which indicates that rural institutional heads are more concern about skill development programmes than urban institutional heads. So, whether they are rural or urban respondents, there is no significant difference between the two groups in their opinions for most of the statements tested, **thus the null hypothesis is accepted.**

### 4.6.3 District

The state of Goa is divided into two different districts for geographical identification which includes North and South Goa. Out of 81 institutional heads surveyed, 48 (59%) institutional heads were from North Goa and 33 (41%) institutional heads were from south Goa. The Tables shown below give detailed information of the data analyzed. Tables 4.8 gives the frequencies, Table 4.9 gives the mean Score and Table 4.10 gives the *'t' test* values.

**H03: There is no significant difference in the perspectives of Institutional Heads of North and South districts in Goa.**

**Table 4.8: Table showing frequencies of Institutional Heads (District)**

| Statements | Scale | District | | | | | |
|---|---|---|---|---|---|---|---|
| | | North | | South | | Total | |
| | | N | % | N | % | N | % |
| Students acquire enough job skills after the completion of the course. | SDA | 0 | 0.0% | 2 | 6.2% | 2 | 2.5% |
| | DA | 6 | 12.5% | 1 | 3.1% | 7 | 8.8% |
| | N | 4 | 8.3% | 4 | 12.5% | 8 | 10.0% |
| | A | 27 | 56.2% | 20 | 62.5% | 47 | 58.8% |
| | SA | 11 | 22.9% | 5 | 15.6% | 16 | 20.0% |
| Training/internship provided is sufficient for them to place on the job. | SDA | 0 | 0.0% | 2 | 6.1% | 2 | 2.5% |
| | DA | 8 | 17.0% | 4 | 12.1% | 12 | 15.0% |
| | N | 11 | 23.4% | 7 | 21.2% | 18 | 22.5% |
| | A | 21 | 44.7% | 14 | 42.4% | 35 | 43.8% |
| | SA | 7 | 14.9% | 6 | 18.2% | 13 | 16.2% |
| Confident that the trained students are competent to take up the job. | SDA | 0 | 0.0% | 2 | 6.1% | 2 | 2.5% |
| | DA | 6 | 12.5% | 2 | 6.1% | 8 | 9.9% |
| | N | 7 | 14.6% | 1 | 3.0% | 8 | 9.9% |
| | A | 23 | 47.9% | 19 | 57.6% | 42 | 51.9% |
| | SA | 12 | 25.0% | 9 | 27.3% | 21 | 25.9% |
| Curriculum framed by the concern authority is relevant to the job required by the industries. | SDA | 0 | 0.0% | 3 | 9.1% | 3 | 3.8% |
| | DA | 7 | 14.9% | 2 | 6.1% | 9 | 11.2% |
| | N | 7 | 14.9% | 2 | 6.1% | 9 | 11.2% |
| | A | 22 | 46.8% | 21 | 63.6% | 43 | 53.8% |
| | SA | 11 | 23.4% | 5 | 15.2% | 16 | 20.0% |
| Changes in course should be made to meet the expectations of the employers. | SDA | 0 | 0.0% | 3 | 9.1% | 3 | 3.8% |
| | DA | 10 | 21.3% | 4 | 12.1% | 14 | 17.5% |
| | N | 6 | 12.8% | 8 | 24.2% | 14 | 17.5% |
| | A | 20 | 42.6% | 11 | 33.3% | 31 | 38.8% |
| | SA | 11 | 23.4% | 7 | 21.2% | 18 | 22.5% |
| Is it a need of the hour to proper implementation of skill development mission in the state. | SDA | 0 | 0.0% | 1 | 3.0% | 1 | 1.2% |
| | DA | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | N | 1 | 2.1% | 2 | 6.1% | 3 | 3.8% |
| | A | 22 | 46.8% | 15 | 45.5% | 37 | 46.2% |
| | SA | 24 | 51.1% | 15 | 45.5% | 39 | 48.8% |
| Skill development courses are better than general courses to get jobs. | SDA | 0 | 0.0% | 1 | 3.0% | 1 | 1.2% |
| | DA | 0 | 0.0% | 2 | 6.1% | 2 | 2.5% |
| | N | 9 | 19.1% | 4 | 12.1% | 13 | 16.2% |
| | A | 18 | 38.3% | 11 | 33.3% | 29 | 36.2% |
| | SA | 20 | 42.6% | 15 | 45.5% | 35 | 43.8% |
| Skill courses have very much scope in the present employment field. | SDA | 0 | 0.0% | 1 | 3.0% | 1 | 1.2% |
| | DA | 1 | 2.1% | 1 | 3.0% | 2 | 2.5% |
| | N | 8 | 17.0% | 1 | 3.0% | 9 | 11.2% |
| | A | 17 | 36.2% | 16 | 48.5% | 33 | 41.2% |
| | SA | 21 | 44.7% | 14 | 42.4% | 35 | 43.8% |
| Students with skill courses are more competent than the general stream. | SDA | 0 | 0.0% | 1 | 3.0% | 1 | 1.2% |
| | DA | 2 | 4.3% | 3 | 9.1% | 5 | 6.2% |
| | N | 13 | 27.7% | 5 | 15.2% | 18 | 22.5% |
| | A | 18 | 38.3% | 11 | 33.3% | 29 | 36.2% |
| | SA | 14 | 29.8% | 13 | 39.4% | 27 | 33.8% |
| Trained students get job soon after completion of course. | SDA | 0 | 0.0% | 1 | 3.0% | 1 | 1.2% |
| | DA | 8 | 16.7% | 3 | 9.1% | 11 | 13.6% |
| | N | 11 | 22.9% | 11 | 33.3% | 22 | 27.2% |
| | A | 20 | 41.7% | 10 | 30.3% | 30 | 37.0% |
| | SA | 9 | 18.8% | 8 | 24.2% | 17 | 21.0% |

*(Source: Primary survey)*

*(Note: All sample respondents have not responded, so total sample respondent are less.)*

**Table 4.9: Table showing Group statistics of Institutional Heads (District)**

| Statements | District | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| Students acquire enough job skills after the completion of the course. | North | 48 | 3.90 | .905 | .131 |
| | South | 32 | 3.78 | .975 | .172 |
| Training/internship provided is sufficient for them to place on the job. | North | 47 | 3.57 | .950 | .139 |
| | South | 33 | 3.55 | 1.121 | .195 |
| Confident that the trained students are competent to take up the job. | North | 48 | 3.85 | .945 | .136 |
| | South | 33 | 3.94 | 1.059 | .184 |
| Curriculum framed by the concern authority is relevant to the job required by the industries. | North | 47 | 3.79 | .977 | .142 |
| | South | 33 | 3.70 | 1.104 | .192 |
| Changes in course should be made to meet the expectations of the employers. | North | 47 | 3.68 | 1.065 | .155 |
| | South | 33 | 3.45 | 1.227 | .214 |
| Is it a need of the hour to proper implementation of skill development mission in the state. | North | 47 | 4.49 | .547 | .080 |
| | South | 33 | 4.30 | .847 | .147 |
| Skill development courses are better than general courses to get jobs. | North | 47 | 4.23 | .758 | .111 |
| | South | 33 | 4.12 | 1.053 | .183 |
| Skill courses have very much scope in the present employment field. | North | 47 | 4.23 | .813 | .119 |
| | South | 33 | 4.24 | .902 | .157 |
| Students with skill courses are more competent than the general stream. | North | 47 | 3.94 | .870 | .127 |
| | South | 33 | 3.97 | 1.104 | .192 |
| Trained students get job soon after completion of course. | North | 48 | 3.63 | .981 | .142 |
| | South | 33 | 3.64 | 1.055 | .184 |

**Table 4.10: Table showing t-test analyses of Institutional Heads (District)**

| Statements | | Levene's Test for Equality of Variances | | | | | |
|---|---|---|---|---|---|---|---|
| | | F | Sig. | T | Df | Sig. (2-tailed) | Null Hypothesis (H0) |
| Students acquire enough job skills after the completion of the course. | Equal variances assumed | .041 | .841 | .538 | 78 | .592 | Retain |
| | Equal variances not assumed | | | .530 | 63.098 | .598 | Retain |
| Training/internship provided is sufficient for them to place on the job. | Equal variances assumed | .771 | .383 | .125 | 78 | .901 | Retain |
| | Equal variances not assumed | | | .121 | 61.529 | .904 | Retain |
| Confident that the trained students are competent to take up the job. | Equal variances assumed | .162 | .689 | -.380 | 79 | .705 | Retain |
| | Equal variances not assumed | | | -.372 | 63.651 | .711 | Retain |
| Curriculum framed by the concern authority is relevant to the job required by the industries. | Equal variances assumed | .008 | .929 | .386 | 78 | .701 | Retain |
| | Equal variances not assumed | | | .377 | 63.510 | .707 | Retain |
| Changes in course should be made to meet the expectations of the employers. | Equal variances assumed | .885 | .350 | .878 | 78 | .382 | Retain |
| | Equal variances not assumed | | | .857 | 62.633 | .395 | Retain |
| Is it a need of the hour to proper implementation of skill development mission in the state. | Equal variances assumed | 1.779 | .186 | 1.196 | 78 | .235 | Retain |
| | Equal variances not assumed | | | 1.111 | 50.441 | .272 | Retain |
| Skill development courses are better than general courses to get jobs. | Equal variances assumed | 1.563 | .215 | .558 | 78 | .579 | Retain |
| | Equal variances not assumed | | | .527 | 54.480 | .600 | Retain |
| Skill courses have very much scope in the present employment field. | Equal variances assumed | .126 | .723 | -.043 | 78 | .966 | Retain |
| | Equal variances not assumed | | | -.043 | 64.346 | .966 | Retain |
| Students with skill courses are more competent than the general stream. | Equal variances assumed | 1.161 | .285 | -.152 | 78 | .880 | Retain |
| | Equal variances not assumed | | | -.146 | 58.294 | .885 | Retain |
| Trained students get job soon after completion of course. | Equal variances assumed | .197 | .658 | -.050 | 79 | .961 | Retain |
| | Equal variances not assumed | | | -.049 | 65.572 | .961 | Retain |

**4.6.3.1 Students acquire enough job skills.**

In table 4.8 perspectives of the Head of the Institutions (District wise) were collected to find the level of skill acquire by the students after the completion of course. In this case, majority of the respondents i.e. 56.2% of North and 62.5% of South respondents agreed while 22.9% and 15.6% from North and South district respectively had strongly agreed and a small percentage of respondents were either neutral or unfavourable. However if we put together entire result, we can say that majority of the Institutional Heads from Rural as well as Urban areas were strongly favourable to the students acquire enough job skill through skill courses after the completion of the course.

The *Mean* score of the institutional heads between North and South respondents (table 4.9) is 3.90 and 3.78 respectively. It reveals that that there is no much difference in their opinions but they are the north respondent who favours more that students acquire enough job knowledge than the South respondents.

The *F* ratio for Levene's test for equality of variance (table 4.10) is not significant (F=0.041, P=0.841>0.05) at 5% level of significance. The *'t'* value for equality of means is not significant (t=0.538, P=0.592>0.05) at 5 % level of significance. It means that there is no significant difference between the North and South respondents whereby respondents both districts are favourable with reference to training or internship provided is enough to place students on the job.

**4.6.3.2 Training/internship provided is sufficient.**

The data collected was analyzed in table 4.8 which reveals that majority of the respondent i.e. North (44.7%) and South (42.4%) agreed and few strongly agreed followed by 23.4% and 21.2% from north and south were neutral while remaining respondents were either disagreed and very negligible percentage of the respondents from South district strongly disagreed. The overall result shows that the majority of the respondents whether they are from rural or urban area favourable to internship provided in the industry or practical training by the institutes is quite sufficient for them to get job in their respective field.

Further, the *Mean* score between North and South institutional heads (table 4.9) is 3.57 and 3.55, which indicates that the respondents from two different location are more or less equally favourable towards internship provided by the institutions is

sufficient for the students to place them on the job but North respondents have edge over South respondents.

In case of the *'t'* test analyses, the *F* ratio for Levene's test for equality of variance (table 4.10) is not significant (F=0.771, p=0.383>0.05) at 5% level of significance. The *'t'* value for equality of means is 0.125 and its corresponding *p* value is 0.901 which is more than 0.05 at 5% level of significance. It indicates that there is no significant difference between North and South district respondents. It means both sections of respondents are favourable towards training or internship provided is sufficient for the students to take up job in their respective field.

### 4.6.3.3 Confidence in students to take up job.

Table 4.8 shows that majority (47.9%) from north  and (57.6%) from south agreed followed by 25.0% and 27.3 strongly agreed from north and south while the remaining respondents were either neutral and disagreed whereas strongly disagreed  only from south district. The overall result indicates that majority of the respondents from rural and urban areas are favourable towards student's confidence for taking up job in their respective skill courses. They believe that students are confident enough to take up job.

The *mean* score between North and South respondents (table 4.9) is 3.85 and 3.94respectively which indicates that there is no much difference in their perspectives but respondents from South are more favourable and confident that trained students are competent to take up the job.

The Levene's test for equality of variance (table 4.10) is not significant (F=0.162, p=0.689>0.05) at 5% level of significance. The *'t'* value for equality of means is -0.380 and its corresponding *p* value is 0.705 which is not significant at 5% level of significance. It means there is no significant different between North and South respondents in their perspectives towards confidence in the student that they take up job in their respective field.

### 4.6.3.4 Curriculum framed.

Table 4.8 depicts that between North and South majority of the North respondents (46.8%) and South respondents (63.6%) agreed whereas (23.4%) and (15.2%) strongly agreed respectively. It means both sections of the respondents are favourable to the curriculum framed by the concern authority is relevant and as per the requirement of the industries.

The *Mean* score between North and South respondents (table 4.9) is 3.79 and 3.70 respectively which it speaks positively to the opinions about skill development is concerned. This also shows that North respondents are more favourable than South respondents as far as framing of curriculum is concerned.

The Levene's test for equality of variance (table 4.10) is not significant (F=0.008, p=.929>0.05) at 5% level of significance. The *'t'* value is -0.386 and the corresponding *p* value is 0.701 which is not significant. It reveals that there is no significant difference between the North and South institutional heads which means respondents from both the districts are favourable with regards to perspective on curriculum framed by the concern authority is relevant.

### 4.6.3.5 Changes required to meet expectations of the employers.

Table 4.8 shows that most of the respondents from rural (42.6%) and from urban area (33.3%) were agreed while (23.4%) and (21.2%) strongly agreed respectively and a small percentage of the respondents were neutral and disagreed whereas none from North and 9.1% from South Strongly agreed. It means that the present courses are not upto the mark and need to make changes in the course to meet the expectations of the employers.

The *Mean* score between North and South respondents (table 4.9) is 3.68 and 3.45 respectively. This shows that the North respondents are more favorable than the South respondents towards the requirement of changes to be made to meet expectations of the employers.

In case of the '*t'* test analyses, the *F* ratio for Levene's test for equality of variance (table 4.10) is not significant i.e. (P=0.885, P=0.350>0.05. The '*t'* value for equality of means is not significant (t=0.878, *p*=0.382>0.05) at 5 % level of Significance. It means that there is no significant difference between the North and South respondents whereby both section of respondents are favourable towards changes are need to be made to meet expectations of the employers.

### 4.6.3.6 Implementation of skill development mission

The table 4.8 indicates that majority of the respondents (51.1%) and (45.5%) strongly agreed while (46.8%) and (45.5%) agreed from North and South respectively whereas very negligible percentage of respondent were either neutral or strongly disagree that there is a need to the proper implementation of skill development mission in the state. The entire result if we put together it reveals that majority of the respondents

opined that the skill development mission is not implemented properly in the state of Goa. It means that both section of the respondents are unfavourable that mission is implemented properly in the state.

The *mean* score between North and South respondents (table 4.9) is 4.49 and 4.30 respectively. This indicates that North respondents are having edge over South respondents towards implementation of skills programmes in Goa.

In case of *'t'* test analyses, the *F* ratio for Levene's test for equality of variance (table 4.10) is not significant (p=1.779) whereby *P* value is more than 0.05 (0.186) at 5% level of significance. The *'t'* value is 1.196 and its corresponding *p* value is 0.235 which is greater than 0.05. This indicates that there is no significant difference between North and South respondents which means both are them are favourable in their perspectives towards need to proper implementation of skill development mission in the state.

### 4.6.3.7 Skill development courses are better than general courses.

From the table 4.8 shows the perspectives on whether skill courses are better than general courses to get the jobs. It is observed that majority of respondents from North (42.6%) and South (45.5%) was strongly agreed while 38.3% and 33.3% agreed respectively. The combined result of the opinions given by institutional heads indicates that students with skill courses are better than students from general courses to get the job.

The *Mean* score between North and South respondents (table 4.9) is 4.23 and 4.12 respectively. It depicts that North institutional heads are more favourable than south institutional heads with regards to skill development programmes are better than general courses.

The *F* ratio for Levene's test for equality of variance (table 4.10) is not significant (F=1.563, p=0.215>0.05) at 5% level of significance. The *'t'* value for equality of means is not significant (0.558) and its corresponding *p* value is 0.579 which is more than 0.05 at 5% level of significance It depicts that there is no significant difference between the respondents from two different districts. It means both section of the respondents are favourable towards their perspectives on skill courses are better than general courses to get job.

### 4.6.3.8 Scope for Skill courses

In table 4.8 the majority of the respondents from North (44.7%) and (36.2%) strongly agreed and agreed respectively where respondents from South (48.5%) and (42.4%) agreed and strongly agreed respectively that there is a scope for skill courses in the present employment field. It means that most of the respondents from rural as well as urban area are favourable that there is very much scope for skill courses in the present employment field.

The *Mean* score between North and South respondents (table 4.9) is 4.23 and 4.24 respectively which shows no much difference in their perspectives but the respondents from South are slightly more favourable towards skill courses having more scope for employment than respondents from North district.

The *F* ratio for Levene's test for equality of variance (table 4.10) is not significant (F=0.126, p=0.723>0.05) at 5% level of significance. The *'t'* value for equality of means is -0.043 and its corresponding *p* value is 0.966 which is greater than 0.05 at 5% level of significance. It indicates that there is a no significant difference between North and South institutional heads whereby both of them are favourable towards skill courses has very much scope for employment.

### 4.6.3.9 Skill courses students are more competent than the general stream

Table 4.8 shows that majority of the North institutional heads (38.3%) and (29.8%) agreed and strongly agreed respectively whereas South institutional heads (39.4%) strongly agreed and (33.3%) agreed to the students with skill courses are more competent than the general stream. The combined result reveals that the students with skill courses are more competent than the general stream on the job.

The *mean* score between the North and South respondents (table 4.9) is 3.94 and 3.97 respectively, which shows that between the North and South institutional heads, the South respondents are more positive towards students with skill courses are more competent than the general streams as compared to North respondents.

The *F* ratio for Levene's test for equality of variance (table 4.10) is not significant (1.161) and the *P* value (0.285) which is more than 0.05 at 5% level of significance. The *'t'* value is -0.152 and its corresponding *p* value is 0.880 which is higher than 0.05. This shows that there exist no significant differences between respondents from two different districts. It means both section of respondents are favourable towards their perspective on students with skill courses are more competent than the general course.

**4.6.3.10 Trained students get job soon.**

It is can be observed from table 4.8 that majority of North respondents (41.7%) and South respondents (30.3%) agreed whereas (18.8%) from North and (24.2%) from South strongly agreed while a sizeable percentage of respondents (22.9%) and (33.3%) respectively were neutral that the trained students under skill courses get job soon after the completion of the course. It means that majority of the respondents are favourable towards students pass out from skill courses gets job soon after the completion of course than urban respondents but a good number of respondents were neutral.

The *Mean* score between the rural and urban respondents (table 4.9) is 3.63 and 3.64 respectively, which indicates that in-between the respondents from two different districts they are South respondents who are more favourable. The respondents from South district feels that trained students get jobs faster and soon after completion of the course as compared to North respondents.

The *F* ratio for Levene's test for equality of variance (table 4.10) is not significant (F=0.197, p=0.658> 0.05) at 5% level of significance. The '*t*' value for equality of variance is -0.050 and its corresponding *P* value is 0.961 which is higher than 0.05 at 5% level of Significance. This means that there is no significant difference between North and South respondents and both of them are favourable towards trained students getting job soon after completion of their course.

To sum up the perspectives of institutional heads on the basis of location, the analyses of with the help Levene's test for equality of variance in all 10 statements shows not significant. The '*t*' value of Independent sample t- test for equal variances in all the attributes is also not significant i.e. '*p*' *is* more than 0.05 so also in case of equal variance not assumed. Sig. (2-tailed) value at 5% significance shows that *p* is more than 0.05. The *Mean* score between North and South Head of the institutions in case of all attributes shows that there is no much more difference. It means that respondents from both districts do not differ in their opinion in case of all the statement. So, whether respondents are from North or South district, there is no difference between the two groups in their opinions for all the statements tested, **thus the null hypothesis is accepted.**

The data collected from institutional heads was analyzed on the basis of talukas. The total respondents were 81, collected from 7 talukas out of 12 talukas namely Pernem (12), Bardez (10), Tiswadi (13), Ponda (14), Salcete (21), Mormugao (9), and Dharbandora (3). The statistical tools such as Percentage and One way ANOVA was used to analyze the data. Table **4.11** gives the **Frequencies along with Percentages.** Table **4.12** gives the **One-way ANOVA values**.

**H04: There is no significant difference in the perspectives of Institutional Heads of different taluka in Goa.**

**Table 4.11: Table showing frequencies of Institutional Heads (Talukas)**

| Staements | Scale | Pernem | | Bardez | | Tiswadi | | Ponda | | Salcete | | Mormugao | | Dharbandora | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % |
| Students acquire enough job skills after the completion of the course. | SDA | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 5.0% | 1 | 11.1% | 0 | 0.0% | 2 | 2.5% |
| | DA | 2 | 18.2% | 1 | 10.0% | 1 | 7.7% | 2 | 14.3% | 0 | 0.0% | 1 | 11.1% | 0 | 0.0% | 7 | 8.8% |
| | N | 2 | 18.2% | 0 | 0.0% | 1 | 7.7% | 1 | 7.1% | 3 | 15.0% | 1 | 11.1% | 0 | 0.0% | 8 | 10.0% |
| | A | 6 | 54.5% | 7 | 70.0% | 7 | 53.8% | 9 | 64.3% | 11 | 55.0% | 6 | 66.7% | 1 | 33.3% | 47 | 58.8% |
| | SA | 1 | 9.1% | 2 | 20.0% | 4 | 30.8% | 2 | 14.3% | 5 | 25.0% | 0 | 0.0% | 2 | 66.7% | 16 | 20.0% |
| Training/internship provided is sufficient for them to place on the job. | SDA | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 4.8% | 1 | 11.1% | 0 | 0.0% | 2 | 2.5% |
| | DA | 4 | 40.0% | 1 | 10.0% | 1 | 7.7% | 2 | 14.3% | 3 | 14.3% | 1 | 11.1% | 0 | 0.0% | 12 | 15.0% |
| | N | 2 | 20.0% | 2 | 20.0% | 5 | 38.5% | 2 | 14.3% | 3 | 14.3% | 3 | 33.3% | 1 | 33.3% | 18 | 22.5% |
| | A | 4 | 40.0% | 5 | 50.0% | 5 | 38.5% | 9 | 64.3% | 7 | 33.3% | 4 | 44.4% | 1 | 33.3% | 35 | 43.8% |
| | SA | 0 | 0.0% | 2 | 20.0% | 2 | 15.4% | 1 | 7.1% | 7 | 33.3% | 0 | 0.0% | 1 | 33.3% | 13 | 16.2% |
| Confident that the trained students are competent to take up the job. | SDA | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 4.8% | 1 | 11.1% | 0 | 0.0% | 2 | 2.5% |
| | DA | 3 | 27.3% | 0 | 0.0% | 1 | 7.7% | 2 | 14.3% | 1 | 4.8% | 1 | 11.1% | 0 | 0.0% | 8 | 9.9% |
| | N | 3 | 27.3% | 0 | 0.0% | 2 | 15.4% | 2 | 14.3% | 1 | 4.8% | 0 | 0.0% | 0 | 0.0% | 8 | 9.9% |
| | A | 4 | 36.4% | 7 | 70.0% | 6 | 46.2% | 8 | 57.1% | 10 | 47.6% | 6 | 66.7% | 1 | 33.3% | 42 | 51.9% |
| | SA | 1 | 9.1% | 3 | 30.0% | 4 | 30.8% | 2 | 14.3% | 8 | 38.1% | 1 | 11.1% | 2 | 66.7% | 21 | 25.9% |
| Curriculum framed by the concern authority is relevant to the job required by the industries. | SDA | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 2 | 9.5% | 1 | 11.1% | 0 | 0.0% | 3 | 3.8% |
| | DA | 2 | 20.0% | 0 | 0.0% | 1 | 7.7% | 4 | 28.6% | 0 | 0.0% | 1 | 11.1% | 1 | 33.3% | 9 | 11.2% |
| | N | 1 | 10.0% | 2 | 20.0% | 4 | 30.8% | 0 | 0.0% | 1 | 4.8% | 0 | 0.0% | 1 | 33.3% | 9 | 11.2% |
| | A | 4 | 40.0% | 3 | 30.0% | 6 | 46.2% | 10 | 71.4% | 13 | 61.9% | 6 | 66.7% | 1 | 33.3% | 43 | 53.8% |
| | SA | 3 | 30.0% | 5 | 50.0% | 2 | 15.4% | 0 | 0.0% | 5 | 23.8% | 1 | 11.1% | 0 | 0.0% | 16 | 20.0% |
| Changes in course should be made to meet the expectations of the employers. | SDA | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 2 | 9.5% | 1 | 11.1% | 0 | 0.0% | 3 | 3.8% |
| | DA | 2 | 20.0% | 0 | 0.0% | 3 | 23.1% | 5 | 35.7% | 1 | 4.8% | 1 | 11.1% | 2 | 66.7% | 14 | 17.5% |
| | N | 1 | 10.0% | 0 | 0.0% | 3 | 23.1% | 2 | 14.3% | 5 | 23.8% | 3 | 33.3% | 0 | 0.0% | 14 | 17.5% |
| | A | 5 | 50.0% | 5 | 50.0% | 6 | 46.2% | 5 | 35.7% | 8 | 38.1% | 2 | 22.2% | 0 | 0.0% | 31 | 38.8% |
| | SA | 2 | 20.0% | 5 | 50.0% | 1 | 7.7% | 2 | 14.3% | 5 | 23.8% | 2 | 22.2% | 1 | 33.3% | 18 | 22.5% |
| Need to proper implementation of skill development mission in the state. | SDA | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 4.8% | 0 | 0.0% | 0 | 0.0% | 1 | 1.2% |
| | DA | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | N | 0 | 0.0% | 0 | 0.0% | 1 | 8.3% | 0 | 0.0% | 1 | 4.8% | 0 | 0.0% | 1 | 33.3% | 3 | 3.8% |
| | A | 6 | 54.5% | 4 | 40.0% | 6 | 50.0% | 7 | 50.0% | 7 | 33.3% | 6 | 66.7% | 1 | 33.3% | 37 | 46.2% |
| | SA | 5 | 45.5% | 6 | 60.0% | 5 | 41.7% | 7 | 50.0% | 12 | 57.1% | 3 | 33.3% | 1 | 33.3% | 39 | 48.8% |
| Skill development courses are better than general courses to get jobs. | SDA | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 4.8% | 0 | 0.0% | 0 | 0.0% | 1 | 1.2% |
| | DA | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 4.8% | 1 | 11.1% | 0 | 0.0% | 2 | 2.5% |
| | N | 3 | 27.3% | 1 | 10.0% | 2 | 16.7% | 2 | 14.3% | 1 | 4.8% | 3 | 33.3% | 1 | 33.3% | 13 | 16.2% |
| | A | 4 | 36.4% | 4 | 40.0% | 5 | 41.7% | 7 | 50.0% | 5 | 23.8% | 3 | 33.3% | 1 | 33.3% | 29 | 36.2% |
| | SA | 4 | 36.4% | 5 | 50.0% | 5 | 41.7% | 5 | 35.7% | 13 | 61.9% | 2 | 22.2% | 1 | 33.3% | 35 | 43.8% |
| Skill courses have very much scope in the present employment field. | SDA | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 4.8% | 0 | 0.0% | 0 | 0.0% | 1 | 1.2% |
| | DA | 0 | 0.0% | 0 | 0.0% | 1 | 8.3% | 0 | 0.0% | 1 | 4.8% | 0 | 0.0% | 0 | 0.0% | 2 | 2.5% |
| | N | 3 | 27.3% | 1 | 10.0% | 2 | 16.7% | 2 | 14.3% | 0 | 0.0% | 1 | 11.1% | 0 | 0.0% | 9 | 11.2% |
| | A | 2 | 18.2% | 5 | 50.0% | 4 | 33.3% | 7 | 50.0% | 6 | 28.6% | 6 | 66.7% | 3 | 100.0% | 33 | 41.2% |
| | SA | 6 | 54.5% | 4 | 40.0% | 5 | 41.7% | 5 | 35.7% | 13 | 61.9% | 2 | 22.2% | 0 | 0.0% | 35 | 43.8% |
| Students with skill courses are more competent than the general stream. | SDA | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 4.8% | 0 | 0.0% | 0 | 0.0% | 1 | 1.2% |
| | DA | 0 | 0.0% | 1 | 10.0% | 0 | 0.0% | 1 | 7.1% | 1 | 4.8% | 2 | 22.2% | 0 | 0.0% | 5 | 6.2% |
| | N | 3 | 27.3% | 2 | 20.0% | 3 | 25.0% | 4 | 28.6% | 2 | 9.5% | 3 | 33.3% | 1 | 33.3% | 18 | 22.5% |
| | A | 6 | 54.5% | 3 | 30.0% | 5 | 41.7% | 6 | 42.9% | 5 | 23.8% | 4 | 44.4% | 0 | 0.0% | 29 | 36.2% |
| | SA | 2 | 18.2% | 4 | 40.0% | 4 | 33.3% | 3 | 21.4% | 12 | 57.1% | 0 | 0.0% | 2 | 66.7% | 27 | 33.8% |

| Trained students get job soon after completion of course. | SDA | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 4.8% | 0 | 0.0% | 0 | 0.0% | 1 | 1.2% |
| | DA | 1 | 9.1% | 1 | 10.0% | 2 | 15.4% | 3 | 21.4% | 1 | 4.8% | 2 | 22.2% | 1 | 33.3% | 11 | 13.6% |
| | N | 2 | 18.2% | 2 | 20.0% | 3 | 23.1% | 5 | 35.7% | 6 | 28.6% | 4 | 44.4% | 0 | 0.0% | 22 | 27.2% |
| | A | 7 | 63.6% | 5 | 50.0% | 6 | 46.2% | 3 | 21.4% | 5 | 23.8% | 3 | 33.3% | 1 | 33.3% | 30 | 37.0% |
| | SA | 1 | 9.1% | 2 | 20.0% | 2 | 15.4% | 3 | 21.4% | 8 | 38.1% | 0 | 0.0% | 1 | 33.3% | 17 | 21.0% |

*(Source: Primary survey)*

*(Note: All sample respondents have not responded, so total sample respondent are less.)*

### Table 4.12: Table showing ANOVA analyses of Institutional Heads (Talukas)

| Statements | | Sum of Squares | Df | Mean Square | F | Sig. | Null Hypothesis (H0) |
|---|---|---|---|---|---|---|---|
| Students acquire enough job skills after the completion of the course. | Between Groups | 6.576 | 6 | 1.096 | 1.298 | .269 | Retain |
| | Within Groups | 61.624 | 73 | .844 | | | |
| | Total | 68.200 | 79 | | | | |
| Training/internship provided is sufficient for them to place on the job. | Between Groups | 7.098 | 6 | 1.183 | 1.158 | .338 | Retain |
| | Within Groups | 74.590 | 73 | 1.022 | | | |
| | Total | 81.688 | 79 | | | | |
| Confident that the trained students are competent to take up the job. | Between Groups | 10.163 | 6 | 1.694 | 1.848 | .101 | Retain |
| | Within Groups | 67.837 | 74 | .917 | | | |
| | Total | 78.000 | 80 | | | | |
| Curriculum framed by the concern authority is relevant to the job required by the industries. | Between Groups | 7.070 | 6 | 1.178 | 1.133 | .352 | Retain |
| | Within Groups | 75.930 | 73 | 1.040 | | | |
| | Total | 83.000 | 79 | | | | |
| Changes in course should be made to meet the expectations of the employers. | Between Groups | 11.901 | 6 | 1.984 | 1.618 | .154 | Retain |
| | Within Groups | 89.486 | 73 | 1.226 | | | |
| | Total | 101.388 | 79 | | | | |
| Need to proper implementation of skill development mission in the state. | Between Groups | 1.141 | 6 | .190 | .383 | .888 | Retain |
| | Within Groups | 36.246 | 73 | .497 | | | |
| | Total | 37.387 | 79 | | | | |
| Skill development courses are better than general courses to get jobs. | Between Groups | 3.605 | 6 | .601 | .749 | .612 | Retain |
| | Within Groups | 58.583 | 73 | .803 | | | |
| | Total | 62.188 | 79 | | | | |
| Skill courses have very much scope in the present employment field. | Between Groups | 1.091 | 6 | .182 | .240 | .962 | Retain |
| | Within Groups | 55.397 | 73 | .759 | | | |
| | Total | 56.488 | 79 | | | | |
| Students with skill courses are more competent than the general stream. | Between Groups | 7.585 | 6 | 1.264 | 1.394 | .229 | Retain |
| | Within Groups | 66.215 | 73 | .907 | | | |
| | Total | 73.800 | 79 | | | | |
| Trained students get job soon after completion of course. | Between Groups | 4.475 | 6 | .746 | .722 | .633 | Retain |
| | Within Groups | 76.414 | 74 | 1.033 | | | |
| | Total | 80.889 | 80 | | | | |

#### 4.6.4.1 Students acquire enough job skills.

The perspectives of Institutional heads from different talukas (table 4.11) shows altogether more or less same perspectives for the level of skill acquired by the students after the completion of course. The result combined together reveales that majority of the respondents i.e. 63.6% from Pernem, 90% from Bardez, 84.6% from Tiswadi, 78.6% from Ponda, 80% from Salcete, 66.7% from Mormugao and 100% from Dharbandora are favourable. This means that the respondents from different talukas are favourable towards enough job skills are acquired by the students after the completion of course.

The **One way ANOVA** test (table 4.12) shows that the *F* value is 1.298 and its corresponding *p* value is 0.269 which is more than 0.05 at 5% level of significance. This means that there exists no significant difference in the perspectives between institutional heads from different talukas. It means according to institutional heads from different talukas opined that students acquire sufficient job skills after completion of the course.

**4.6.4.2 Training/internship provided is sufficient.**

The overall result (table 4.11) shows that the majority of the respondents i.e. 40.0% of Pernem, 70.0% of Bardez, 53.9% of Tiswadi, 71.4% of Ponda, 66.6% of Salcete, 44.4% of Mormugao and 66.6% of Dharbandora are favourable. This means that the respondents from different talukas are favourable towards internship provided in the industry or practical training by the institutes to the students is quite sufficient for them to get the job.

One way *ANOVA* test (table 4.12) shows that the F value is 1.158 and its corresponding p value is 0.338 which is more than 0.05 at 5% level of significance. It means that there exists no significant difference between the opinions of institutional heads from different talukas for training or internship provided by the institutions and industries respectively.

**4.6.4.3 Confidence in students to take up job.**

Table 4.11 shows that majority of the respondents i.e. 45.5% from Pernem, 100% fom Bardez, 77.0% from Tiswadi, 71.4% from Ponda, 85.7% from Salcete, 77.8% from Mormugao and 100% from Dharbandora are agreed and strongly agreed. The overall result indicates that majority of the respondents from different talukas are favourable towards student's confidence for taking up job in their respective skill courses.

The one way *ANOVA* Table 4.12 shows that the F value is 1.848 and its corresponding *p* value is 0.101 which is greater than 0.05 at 5% level of significance. Therefore we can say that there no significant difference between the perspectives of institutional heads from different talukas with reference to student's confidence in taking up the job in skill courses studied.

**4.6.4.4 Curriculum framed.**

The perspectives of respondents from different talukas (table 4.11) shows that the majority i.e. 70.0% of Pernem, 80.0% of Bardez, 61.6% of Tiswadi, 71.4% of Ponda, 85.7% of Salcete, 77.8% of Mormugao and 33.3% from Dharbandora are favourable. It means respondents from different talukas are favourable to the curriculum framed by the concern authority is relevant and as per the requirement of the industries.

According to one way *ANOVA* test (table 4.12), the *F* value is 1.133 and its corresponding *p* value is 0.352 which is more than 0.05 at 5% level of significance. Therefore, we can say that there exist no significance difference between the opinions of institutional heads from different talukas for curriculum framed is relevant.

### 4.6.4.5 Changes required to meet expectations of the employers.

Table 4.11 reveals that majority of the respondents i.e. 70.0% of Pernem, 100% of Bardez, 53.9% of Tiswadi, 50.0% of Ponda, 61.9% of Salcete, 44.4% of Mormugao are favourable while 66.7% from Dharbandora are unfavourable. It indicates that the present courses are not upto the mark and need changes to meet the expectations of the employers.

One way ANOVA test (table 4.12) shows that the *F* value is 1.618 where as its corresponding *p* value is 0.154 which is greater than 0.05 at 5% level of significance. It means that there is no significant difference between the respondents from different talukas with regards to changes required to meet expectations of the employers.

### 4.6.4.6 Implementation of skill development mission

The overall result (table 4.11) shows that the majority of the respondents i.e. 100% of Pernem, 100% of Bardez, 91.7% of Tiswadi, 100% of Ponda, 90.4% of Salcete, 100% of Mormugao and 66.6% of Dharbandora are agreed and strongly agreed. This means that the respondents from different talukas opined that there is need to implement proper implementation of skill mission in the state. In other words skill development mission is not implemented properly in the state of Goa.

According to one way ANOVA test (table 4.12), the F value is 0.383 where as its corresponding *p* value is 0.888 which is higher than 0.05 at 5% level of significance. It means that there is no significant difference between the institutional heads from different talukas with reference to need of proper implemented of skill mission in the state of Goa.

### 4.6.4.7 Skill development courses are better than general courses.

From the table 4.11 it is observed that majority of respondents i.e. 72.8% of Pernem, 90.0% of Bardez, 83.4% of Tiswadi, 85.7% of Ponda, 85.7% of Salcete, 55.5% of Mormugao and 66.6% of Dharbandora are agreed and strongly agreed. The combined result of the perspectives given by institutional heads are favourable with reference to the students of skill courses are better than students from general courses to get the job.

The one way ANOVA test (table 4.12) shows that the F value is 0.749 where as its corresponding *p* value is 0.612 which is greater than 0.05 at 5% level of significance. It indicates that there is no significant difference between the opinions given by the respondents from different talukas whereby they are favourable towards their perspectives on skill courses students are better than general courses to get job.

### 4.6.4.8 Scope for Skill courses

In table 4.11 the majority of the respondents i.e. 72.7% from Pernem, 90.0% from Bardez, 75.0% from Tiswadi, 85.7% from Ponda, 90.5% from Salcete, 88.9% from Mormugao and 100% from Dharbandora agreed and strongly agreed. It means that most of the respondents different talukas are favourable towards there is very much scope for skill courses in the present employment field.

One way ANOVA test (table 4.12) reveals that the F value is 0.240 where as its corresponding *p* value is 0.962 which is more than 0.05 at 5% level of significance It indicates that there is a no significant difference between perspectives of institutional heads from different talukas with regards to skill courses has very much scope for employment. It means respondents from different talukas are favourable

### 4.6.4.9 Skill courses students are more competent than the general stream

Table 4.11 shows that majority of the institutional heads from different talukas i.e. 73.1% of Pernem, 70.0% of Bardez, 75.0% of Tiswadi, 64.3% of Ponda, 80.9% of Salcete, 44.4% of Mormugao and 66.7% of Dharbandora agreed and strongly agreed.The combined result of the institutional heads of different talukas are favourable to the students with skill courses are more competent than the general stream for the job.

The One way ANOVA Table 4.12 also shows a similar kind of situation. The F value in this case is 1.394 and its *p* value is 0.229 which is greater than 0.05 and therefore it can be concluded that there is no significant difference between respondents from different talukas towards their perspective on students with skill courses are more competent than the general course.

**4.6.4.10 Trained students get job soon.**

It can be seen from table 4.11 that majority of the respondents of different talukas reveals that 72.4% of Pernem, 70.0% of Bardez, 61.2% of Tiswadi, 61.9% of Salcete and 66.6% of Dharbandora are favourable whereas 42.8% and 35.7% of Ponda, 33.3% and 44.4% of Mormugao are favourable and neutral respectively. It means that majority of the respondents from different talukas are favourable except Mormugao most of them are neutral towards students pass out from skill courses gets job soon after the completion of course.

The *F* value disclosed by one way ANOVA test (table 4.12) is 0.722 and its corresponding *p* value is 0.633 which is higher than 0.05 at 5% level of significance. This means that there is no much significant difference in their opinions towards trained students getting job soon after completion of their course. In other words as per perspectives of institutional heads trained skill students get jobs soon after completion of their course.

To sum up the perspectives of institutional heads on the basis of talukas, the **One way ANOVA** test in all the above 10 statement shows that *p* value is not significant which is more than 0.05 at 5% level of significance. This means that there is no significant difference between the perspectives given by the institutional heads from different talukas with regards to skill development programmes in Goa. So the respondents from different taluka indicate that there is no significant difference in their perspectives between the groups of institutional heads from different talukas for all the attributes tested above. **Thus the null hypothesis is accepted.**

**4.6.5 Stream**

The collected data from various institutional heads was analyzed on the basis of streams. The total 81 respondents were divided into 10 streams namely HS (24), HSSC (16), UNID (1), ITI (6), HRDFS (18), EDP (2), GHRSDC (1), TrCPC (7), APPRT (2) and OITSG (4). The statistical tools such as percentage and one way ANOVA was used to analyze the data. Table 4.13 gives the Frequencies along with Percentages. Table 4.14 gives the One-way ANOVA values.

**H05: There is no significant difference in the perspectives of Institutional Heads of different streams in Goa.**

**Table 4.13: Table showing frequencies of Institutional Heads (Streams)**

| Statement | Scale | HS | | HSSC | | UNID | | ITI | | HRDFS | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | N | % | N | % | N | % | N | % | N | % |
| Students acquire enough job skills after the completion of the course. | SDA | 0 | 0.0% | 1 | 6.2% | 0 | 0.0% | 0 | 0.0% | 1 | 5.6% |
| | DA | 5 | 20.8% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 5.6% |
| | N | 3 | 12.5% | 2 | 12.5% | 0 | 0.0% | 0 | 0.0% | 3 | 16.7% |
| | A | 13 | 54.2% | 12 | 75.0% | 1 | 100.0% | 5 | 83.3% | 8 | 44.4% |
| | SA | 3 | 12.5% | 1 | 6.2% | 0 | 0.0% | 1 | 16.7% | 5 | 27.8% |
| Training/internship provided is sufficient for them to place on the job. | SDA | 0 | 0.0% | 1 | 6.2% | 0 | 0.0% | 0 | 0.0% | 1 | 5.9% |
| | DA | 8 | 33.3% | 3 | 18.8% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | N | 9 | 37.5% | 3 | 18.8% | 0 | 0.0% | 1 | 16.7% | 4 | 23.5% |
| | A | 6 | 25.0% | 8 | 50.0% | 1 | 100.0% | 4 | 66.7% | 7 | 41.2% |
| | SA | 1 | 4.2% | 1 | 6.2% | 0 | 0.0% | 1 | 16.7% | 5 | 29.4% |
| Confident that the trained students are competent to take up the job. | SDA | 0 | 0.0% | 1 | 6.2% | 0 | 0.0% | 0 | 0.0% | 1 | 5.6% |
| | DA | 5 | 20.8% | 3 | 18.8% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | N | 4 | 16.7% | 1 | 6.2% | 0 | 0.0% | 0 | 0.0% | 1 | 5.6% |
| | A | 13 | 54.2% | 8 | 50.0% | 1 | 100.0% | 4 | 66.7% | 10 | 55.6% |
| | SA | 2 | 8.3% | 3 | 18.8% | 0 | 0.0% | 2 | 33.3% | 6 | 33.3% |
| Curriculum framed by the concern authority is relevant to the job required by the industries. | SDA | 0 | 0.0% | 1 | 6.2% | 0 | 0.0% | 0 | 0.0% | 2 | 11.1% |
| | DA | 5 | 20.8% | 3 | 18.8% | 0 | 0.0% | 1 | 16.7% | 0 | 0.0% |
| | N | 3 | 12.5% | 3 | 18.8% | 0 | 0.0% | 2 | 33.3% | 1 | 5.6% |
| | A | 13 | 54.2% | 7 | 43.8% | 1 | 100.0% | 3 | 50.0% | 9 | 50.0% |
| | SA | 3 | 12.5% | 2 | 12.5% | 0 | 0.0% | 0 | 0.0% | 6 | 33.3% |
| Changes in course should be made to meet the expectations of the employers. | SDA | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 16.7% | 2 | 11.8% |
| | DA | 8 | 33.3% | 1 | 6.2% | 0 | 0.0% | 0 | 0.0% | 2 | 11.8% |
| | N | 6 | 25.0% | 1 | 6.2% | 0 | 0.0% | 1 | 16.7% | 3 | 17.6% |
| | A | 9 | 37.5% | 5 | 31.2% | 1 | 100.0% | 4 | 66.7% | 7 | 41.2% |
| | SA | 1 | 4.2% | 9 | 56.2% | 0 | 0.0% | 0 | 0.0% | 3 | 17.6% |
| Is it a need of the hour to proper implementation of skill development mission in the state. | SDA | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 5.6% |
| | DA | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | N | 1 | 4.2% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 2 | 11.1% |
| | A | 11 | 45.8% | 4 | 25.0% | 1 | 100.0% | 4 | 80.0% | 10 | 55.6% |
| | SA | 12 | 50.0% | 12 | 75.0% | 0 | 0.0% | 1 | 20.0% | 5 | 27.8% |
| Skill development courses are better than general courses to get jobs. | SDA | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 5.6% |
| | DA | 1 | 4.2% | 0 | 0.0% | 0 | 0.0% | 1 | 20.0% | 0 | 0.0% |
| | N | 5 | 20.8% | 2 | 12.5% | 0 | 0.0% | 1 | 20.0% | 2 | 11.1% |
| | A | 9 | 37.5% | 3 | 18.8% | 1 | 100.0% | 1 | 20.0% | 8 | 44.4% |
| | SA | 9 | 37.5% | 11 | 68.8% | 0 | 0.0% | 2 | 40.0% | 7 | 38.9% |
| Skill courses have very much scope in the present employment field. | SDA | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 5.6% |
| | DA | 0 | 0.0% | 1 | 6.2% | 0 | 0.0% | 0 | 0.0% | 1 | 5.6% |
| | N | 4 | 16.7% | 1 | 6.2% | 0 | 0.0% | 1 | 20.0% | 1 | 5.6% |
| | A | 11 | 45.8% | 5 | 31.2% | 1 | 100.0% | 1 | 20.0% | 8 | 44.4% |
| | SA | 9 | 37.5% | 9 | 56.2% | 0 | 0.0% | 3 | 60.0% | 7 | 38.9% |
| Students with skill courses are more competent than the general stream. | SDA | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 5.6% |
| | DA | 2 | 8.3% | 1 | 6.2% | 0 | 0.0% | 2 | 40.0% | 0 | 0.0% |
| | N | 10 | 41.7% | 2 | 12.5% | 0 | 0.0% | 0 | 0.0% | 3 | 16.7% |
| | A | 6 | 25.0% | 6 | 37.5% | 1 | 100.0% | 2 | 40.0% | 7 | 38.9% |
| | SA | 6 | 25.0% | 7 | 43.8% | 0 | 0.0% | 1 | 20.0% | 7 | 38.9% |
| Trained students get job soon after completion of course. | SDA | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 5.6% |
| | DA | 4 | 16.7% | 5 | 31.2% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | N | 9 | 37.5% | 3 | 18.8% | 0 | 0.0% | 1 | 16.7% | 3 | 16.7% |
| | A | 6 | 25.0% | 5 | 31.2% | 1 | 100.0% | 4 | 66.7% | 8 | 44.4% |
| | SA | 5 | 20.8% | 3 | 18.8% | 0 | 0.0% | 1 | 16.7% | 6 | 33.3% |

**Contd……**

| Statement | Scale | EDP | | GHRSDC | | TrCPC | | APPRT | | OITSG | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | N | % | N | % | N | % | N | % | N | % | N | % |
| Students acquire enough job skills after the completion of the course. | SDA | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 2 | 2.5% |
| | DA | 0 | 0.0% | 0 | 0.0% | 1 | 14.3% | 0 | 0.0% | 0 | 0.0% | 7 | 8.8% |
| | N | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 8 | 10.0% |
| | A | 1 | 100.0% | 0 | 0.0% | 3 | 42.9% | 2 | 100.0% | 2 | 50.0% | 47 | 58.8% |
| | SA | 0 | 0.0% | 1 | 100.0% | 3 | 42.9% | 0 | 0.0% | 2 | 50.0% | 16 | 20.0% |
| Training/internship provided is sufficient for them to place on the job. | SDA | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 2 | 2.5% |
| | DA | 0 | 0.0% | 0 | 0.0% | 1 | 14.3% | 0 | 0.0% | 0 | 0.0% | 12 | 15.0% |
| | N | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 25.0% | 18 | 22.5% |
| | A | 1 | 50.0% | 0 | 0.0% | 4 | 57.1% | 1 | 50.0% | 3 | 75.0% | 35 | 43.8% |
| | SA | 1 | 50.0% | 1 | 100.0% | 2 | 28.6% | 1 | 50.0% | 0 | 0.0% | 13 | 16.2% |
| Confident that the trained students are competent to take up the job. | SDA | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 2 | 2.5% |
| | DA | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 8 | 9.9% |
| | N | 0 | 0.0% | 0 | 0.0% | 2 | 28.6% | 0 | 0.0% | 0 | 0.0% | 8 | 9.9% |
| | A | 1 | 50.0% | 0 | 0.0% | 2 | 28.6% | 1 | 50.0% | 2 | 50.0% | 42 | 51.9% |
| | SA | 1 | 50.0% | 1 | 100.0% | 3 | 42.9% | 1 | 50.0% | 2 | 50.0% | 21 | 25.9% |
| Curriculum framed by the concern authority is relevant to the job required by the industries. | SDA | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 3 | 3.8% |
| | DA | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 9 | 11.2% |
| | N | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 9 | 11.2% |
| | A | 2 | 100.0% | 0 | 0.0% | 5 | 83.3% | 2 | 100.0% | 1 | 25.0% | 43 | 53.8% |
| | SA | 0 | 0.0% | 1 | 100% | 1 | 16.7% | 0 | 0.0% | 3 | 75.0% | 16 | 20.0% |
| Changes in course should be made to meet the expectations of the employers. | SDA | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 3 | 3.8% |
| | DA | 0 | 0.0% | 0 | 0.0% | 2 | 28.6% | 0 | 0.0% | 1 | 25.0% | 14 | 17.5% |
| | N | 0 | 0.0% | 0 | 0.0% | 2 | 28.6% | 0 | 0.0% | 1 | 25.0% | 14 | 17.5% |
| | A | 1 | 50.0% | 0 | 0.0% | 1 | 14.3% | 1 | 50.0% | 2 | 50.0% | 31 | 38.8% |
| | SA | 1 | 50.0% | 1 | 100.0% | 2 | 28.6% | 1 | 50.0% | 0 | 0.0% | 18 | 22.5% |
| Need to proper implementation of skill development mission in the state. | SDA | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 1.2% |
| | DA | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | N | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 3 | 3.8% |
| | A | 0 | 0.0% | 1 | 100.0% | 4 | 57.1% | 0 | 0.0% | 2 | 50.0% | 37 | 46.2% |
| | SA | 2 | 100.0% | 0 | 0.0% | 3 | 42.9% | 2 | 100.0% | 2 | 50.0% | 39 | 48.8% |
| Skill development courses are better than general courses to get jobs. | SDA | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 1.2% |
| | DA | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 2 | 2.5% |
| | N | 0 | 0.0% | 0 | 0.0% | 3 | 42.9% | 0 | 0.0% | 0 | 0.0% | 13 | 16.2% |
| | A | 1 | 50.0% | 1 | 100.0% | 2 | 28.6% | 1 | 50.0% | 2 | 50.0% | 29 | 36.2% |
| | SA | 1 | 50.0% | 0 | 0.0% | 2 | 28.6% | 1 | 50.0% | 2 | 50.0% | 35 | 43.8% |
| Skill courses have very much scope in the present employment field. | SDA | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 1.2% |
| | DA | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 2 | 2.5% |
| | N | 0 | 0.0% | 0 | 0.0% | 2 | 28.6% | 0 | 0.0% | 0 | 0.0% | 9 | 11.2% |
| | A | 1 | 50.0% | 1 | 100.0% | 2 | 28.6% | 1 | 50.0% | 2 | 50.0% | 33 | 41.2% |
| | SA | 1 | 50.0% | 0 | 0.0% | 3 | 42.9% | 1 | 50.0% | 2 | 50.0% | 35 | 43.8% |
| Students with skill courses are more competent than the general stream. | SDA | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 1.2% |
| | DA | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 5 | 6.2% |
| | N | 0 | 0.0% | 0 | 0.0% | 2 | 28.6% | 0 | 0.0% | 1 | 25.0% | 18 | 22.5% |
| | A | 1 | 50.0% | 0 | 0.0% | 4 | 57.1% | 1 | 50.0% | 1 | 25.0% | 29 | 36.2% |
| | SA | 1 | 50.0% | 1 | 100.0% | 1 | 14.3% | 1 | 50.0% | 2 | 50.0% | 27 | 33.8% |
| Trained students get job soon after completion of course. | SDA | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 1.2% |
| | DA | 0 | 0.0% | 0 | 0.0% | 2 | 28.6% | 0 | 0.0% | 0 | 0.0% | 11 | 13.6% |
| | N | 1 | 50.0% | 1 | 100.0% | 1 | 14.3% | 1 | 50.0% | 2 | 50.0% | 22 | 27.2% |
| | A | 1 | 50.0% | 0 | 0.0% | 3 | 42.9% | 1 | 50.0% | 1 | 25.0% | 30 | 37.0% |
| | SA | 0 | 0.0% | 0 | 0.0% | 1 | 14.3% | 0 | 0.0% | 1 | 25.0% | 17 | 21.0% |

*(Source: Primary survey)*

*(Note: All sample respondents have not responded, so total sample respondent are less.)*

**Table 4.14: Table showing ANOVA analyses of Institutional Heads (Streams)**

| | | Sum of Squares | Df | Mean Square | F | Sig. | Null Hypothesis (H0) |
|---|---|---|---|---|---|---|---|
| Students acquire enough job skills after the completion of the course. | Between Groups | 6.176 | 9 | .686 | .774 | .640 | Retain |
| | Within Groups | 62.024 | 70 | .886 | | | |
| | Total | 68.200 | 79 | | | | |
| Training/internship provided is sufficient for them to place on the job. | Between Groups | 18.735 | 9 | 2.082 | 2.315 | .024 | **Reject** |
| | Within Groups | 62.952 | 70 | .899 | | | |
| | Total | 81.688 | 79 | | | | |
| Confident that the trained students are competent to take up the job. | Between Groups | 12.094 | 9 | 1.344 | 1.448 | .185 | Retain |
| | Within Groups | 65.906 | 71 | .928 | | | |
| | Total | 78.000 | 80 | | | | |
| Curriculum framed by the concern authority is relevant to the job required by the industries. | Between Groups | 11.556 | 9 | 1.284 | 1.258 | .275 | Retain |
| | Within Groups | 71.444 | 70 | 1.021 | | | |
| | Total | 83.000 | 79 | | | | |
| Changes in course should be made to meet the expectations of the employers. | Between Groups | 22.097 | 9 | 2.455 | 2.168 | .035 | **Reject** |
| | Within Groups | 79.290 | 70 | 1.133 | | | |
| | Total | 101.387 | 79 | | | | |
| Need to proper implementation of skill development mission in the state. | Between Groups | 6.915 | 9 | .768 | 1.765 | .091 | Retain |
| | Within Groups | 30.473 | 70 | .435 | | | |
| | Total | 37.387 | 79 | | | | |
| Skill development courses are better than general courses to get jobs. | Between Groups | 4.982 | 9 | .554 | .677 | .727 | Retain |
| | Within Groups | 57.206 | 70 | .817 | | | |
| | Total | 62.188 | 79 | | | | |
| Skill courses have very much scope in the present employment field. | Between Groups | 1.778 | 9 | .198 | .253 | .985 | Retain |
| | Within Groups | 54.710 | 70 | .782 | | | |
| | Total | 56.488 | 79 | | | | |
| Students with skill courses are more competent than the general stream. | Between Groups | 7.278 | 9 | .809 | .851 | .573 | Retain |
| | Within Groups | 66.522 | 70 | .950 | | | |
| | Total | 73.800 | 79 | | | | |
| Trained students get job soon after completion of course. | Between Groups | 5.675 | 9 | .631 | .595 | .797 | Retain |
| | Within Groups | 75.214 | 71 | 1.059 | | | |
| | Total | 80.889 | 80 | | | | |

### 4.6.5.1 Students acquire enough job skills.

The perspectives of Institutional heads from different streams (table 4.13) shows altogether more or less same result for the level of skill acquired by the students after the completion of course. The combined result reveals that majority of the respondents i.e. 66.7% of HS, 81.2% of HSSC, 100% of UIND, 100% of ITI, 72.2% of HRDFS, 1000% of EDP, 100% of GHRSDC and 85.8% of TrCPC, 100% of APPRT and 100% of OITSG are favourable. It means that the respondents from different streams are favourable towards students acquired enough job skills after the completion of course required for the job.

The **One way ANOVA** test (table 4.14) shows that the *F* value is 0.774 and its corresponding *p* value is 0.640 which is more than 0.05 at 5% level of significance. This means that there exists no significant difference in the perspectives between institutional heads from different streams. The institutional heads from different streams are squally favourable with respect to students acquire sufficient job skills after completion of the course.

**4.6.5.2 Training/internship provided is sufficient.**

The overall result (table 4.13) shows that the majority of the respondents i.e. 62.5% of HS, 68.8% of HSSC, 100% of UIND, 83.4% of ITI, 64.7% of HRDFS, 100% of EDP, 100% of GHRSDC and 85.7% of TrCPC, 100% of APPRT and 75% of OITSG are agreed and strongly agreed. This means that the respondents from different streams are favourable towards internship provided in the industry or practical training by the institutes to the students is quite sufficient to place them on get the job.

One way *ANOVA* test (table 4.14) shows that the F value is 2.315 and its corresponding p value is 0.024 which is lower than 0.05 at 5% level of significance. It means that there exists a significant difference between the opinions of institutional heads from different streams for training or internship provided by the institutions and industries respectively. The respondents from steams like UNID, EDP, GHRSDC, and APPRT are 100% favourable while respondents from other streams are not fully favourable. The respondents from HS, HSSC, ITI, HRDFS, TrCPC and OITSG opined that internship or training provided is insufficient and the students need to be provided proper internship and extra training to gain skills to place them on the job.

**4.6.5.3 Confidence in students to take up job.**

Table 4.13 shows that majority of the respondents from different streams i.e. 62.5% of HS, 68.8% of HSSC, 100% of UIND, 100% of ITI, 88.9% of HRDFS, 100% of EDP, 100% of GHRSDC and 71.5% of TrCPC, 100% of APPRT and 100% of OITSG are favourable. The overall result indicates that majority of the respondents from different talukas are favourable towards student's do get confidence to take up job in their respective skill courses studied by them.

The one way *ANOVA* Table 4.14 shows that the F value is 1.448 and its corresponding *p* value is 0.185 which is greater than 0.05 at 5% level of significance. Therefore we can say that there no significant difference between the perspectives of institutional heads from different streams with reference to student's confidence in taking up the job in skill courses studied.

**4.6.5.4 Curriculum framed.**

The perspectives of respondents from different streams (table 4.13) shows that the majority i.e. 66.7% of HS, 56.3% of HSSC, 100% of UIND, 50.0% of ITI, 83.3% of HRDFS, 100% of EDP, 100% of GHRSDC, 100% of TrCPC, 100% of APPRT and 100% of OITSG are agreed and strongly agreed**.** It means respondents from different streams are favourable to the curriculum framed by the concern authority is relevant and as per the requirement of the industries.

According to one way *ANOVA* test (table 4.14), the *F* value is 1.258 and its corresponding *p* value is 0.275 which is more than 0.05 at 5% level of significance. It means that there exists no significance difference between the opinions of institutional heads from different streams for curriculum framed whereby they feel it is relevant to the requirement of industries.

**4.6.5.5 Changes required to meet expectations of the employers.**

Table 4.13 reveals that majority of the respondents i.e. 41.7% of HS, 87.4% of HSSC, 100% of UIND, 66.7% of ITI, 58.8% of HRDFS, 100% of EDP, 100% of GHRSDC and 42.9% of TrCPC, 100% of APPRT and 50% of OITSG are agreed and strongly agreed. Thus according to the perception of institutional heads from different streams, it reveals that the present courses are not upto the mark and need changes to meet the expectations of the employers.

One way ANOVA test (table 4.14) shows that the *F* value is 2.168 where as its corresponding *p* value is 0.035 which is less than 0.05 at 5% level of significance. It means that there is a significant difference between the respondents from different streams with regards to changes required to meet expectations of the employers. The institutional heads from steams like UIND, EDP, GHRSDC, and APPRT are 100% favourable whereas the respondents from HS, HSSC, ITI, HRDFS, TrCPC and OITSG are not fully favourable. Most of the respondents feel that there is a need to make changes in the course but a handful number of respondents also feels that it is not necessary to make changes in the course to fulfill expectation of the employer.

**4.6.5.6 Implementation of skill development mission**

The overall result (table 4.13) shows that the majority of the respondents i.e. 95.8% of HS, 100% of HSSC, 100% of UIND, 100% of ITI, 83.4% of HRDFS, 100% of EDP, 100% of GHRSDC and 100% of TrCPC, 100% of APPRT and 100% of OITSG are agreed and strongly agreed. It means the respondents from different streams are favourable to the statement that there is need to implement proper implementation of skill mission in the state which means at present, skill development mission is not implemented properly in the state of Goa.

According to one way ANOVA test (table 4.14), the F value is 1.765 where as its corresponding $p$ value is 0.091 which is higher than 0.05 at 5% level of significance. It means that there is no significant difference between the institutional heads from different streams with regards to need of proper implemented of skill mission in the state of Goa.

**4.6.5.7 Skill development courses are better than general courses.**

From the table 4.13 it is observed that majority of respondents i.e. 75.0% of HS, 87.6% of HSSC, 100% of UIND, 60.0% of ITI, 83.3% of HRDFS, 100% of EDP, 100% of GHRSDC and 57.2% of TrCPC, 100% of APPRT and 100% of OITSG are favourable. The combined result of the perspectives given by institutional heads from different streams are favourable with reference to the students possess skill courses are better than students from general courses to get the job.

The one way ANOVA test (table 4.14) shows that the F value is 0.677 where as its corresponding $p$ value is 0.727 which is more than 0.05 at 5% level of significance. It indicates that there is no significant difference between the opinions given by the respondents from different streams whereby they are favourable towards the skill courses students are better than general courses to get job.

**4.6.5.8 Scope for Skill courses**

In table 4.13 the majority of the respondents from different streams i.e. 83.3% of HS, 87.4% of HSSC, 100% of UIND, 80.0% of ITI, 83.3% of HRDFS, 100% of EDP, 100% of GHRSDC and 71.5% of TrCPC, 100% of APPRT and 100% of OITSG are agreed and strongly agreed. It means most of the respondents from different streams are favourable that there is very much scope for skill courses in the present employment field.

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One way ANOVA test (table 4.14) reveals that the F value is 0.253 where as its corresponding *p* value is 0.985 which is higher than 0.05 at 5% level of significance It indicates that there is a no significant difference between perspectives of institutional heads from different streams. It means respondents from different streams are favourable with respect to skill courses has very much scope for employment.

### 4.6.5.9 Skill courses students are more competent than the general stream

Table 4.13 shows that majority of the institutional heads from different streams i.e. 50.0% of HS, 81.3% of HSSC, 100% of UIND, 60.0% of ITI, 77.8% of HRDFS, 100% of EDP, 100% of GHRSDC and 71.4% of TrCPC, 100% of APPRT and 75% of OITSG are favourable with respect to the students with skill courses are more competent than the general stream for the job.

The One way ANOVA Table 4.14 also shows a similar kind of situation. The F value in this case is 0.851 and its *p* value is 0.573 which is greater than 0.05 and therefore it can be concluded that there is no significant difference between respondents from different streams which means they are favourable towards the perspective on students with skill courses are more competent than the general course.

### 4.6.5.10 Trained students get job soon.

It can be seen from table 4.13 that majority of the respondents of different streams reveals that 45.8% of HS, 50.0% of HSSC, 100% of UIND, 83.4% of ITI, 77.7% of HRDFS, 50.0% of EDP, 57.2% of TrCPC, 50.0% of APPRT and 50.0% of OITSG are favourable whereas 100% of GHRSDC are neutral. It means that majority of the respondents from different streams are favourable except respondents from GHRSDC where most of them are neutral in their comment to the students pass-out from skill courses gets job soon after the completion of course.

The *F* value disclosed by one way ANOVA test (table 4.14) is 0.595 and its corresponding *p* value is 0.797 which is more than 0.05 at 5% level of significance. This means that there exists no much significant difference in their opinions towards trained students getting job soon after completion of their course. In other words as per perspectives of institutional heads favours to the trained skill students get jobs soon after completion of their course.

To sum up the perspectives of institutional heads on the basis of streams, the analyses based on **One way ANOVA** test shows that *p* value is more than 0.05 at 5% level of significance for most of the attributes tested above which means that there is no significant difference except in two variables i.e. *Training/internship provided is sufficient for them to place on the job* and *Changes in course should be made to meet the expectations of the employers* there is a difference in opinions whereby *P* value is less than 0.05 i.e. (.024) and (.035) respectively. It means that there exists significant difference between the opinions given by the institutional heads from different streams with regards to above two statements. It indicates that institutional heads from different streams feels that Training/internship provided is not sufficient and also there changes need to be made in the courses. So, the respondents from different streams indicates there is no difference between the groups in their opinions for most of the statements tested except in two statement there is difference in their opinion, **thus the null hypothesis is accepted.**

## 4.7 Conclusion

**Table 4.15: Table showing a brief summary of perspectives of Institutional Heads**

| Aspects of Skill development Programmes Tested based on the Objectives | Gender | Locality | District | Talukas | Streams |
|---|---|---|---|---|---|
| **Opinions of Institutional Heads** | Accepted | Accepted | Accepted | Accepted | Accepted |
| **1**) Students acquire enough job skills after the completion of the course. | .188 | .558 | .592 | .269 | .640 |
| 2) Training/internship provided is sufficient for them to place on the job. | .093 | .967 | .901 | .338 | **.024** |
| 3) Confident that the trained students are competent to take up the job. | .294 | .980 | .705 | .101 | .185 |
| 4) Curriculum framed by the concern authority is relevant to the job required by the industries. | .345 | .957 | .701 | .352 | .275 |
| 5) Changes in course should be made to meet the expectations of the employers. | .874 | .352 | .382 | .154 | **.035** |
| 6) Need of the hour to proper implementation of skill development mission in the state. | .464 | **.024** | .235 | .888 | .091 |
| 7) Skill development courses are better than general courses to get jobs. | .642 | **.049** | .579 | .612 | .727 |
| 8) Skill courses have very much scope in the present employment field. | .147 | **.044** | .966 | .962 | .985 |
| 9) Students with skill courses are more competent than the general stream. | **.044** | .094 | .880 | .229 | .573 |
| 10) Trained students get job soon after completion of course. | .307 | .776 | .961 | .633 | .797 |

With the help of above table 4.15 and the hypothesis formed, it can be concluded that the institutional heads are very confident and no significant difference is noticed in most of the cases tested above about the skill development programmes prevailing in the state of Goa. Between the Male and Female, they do not differ in their opinions in most of the attributes tested except in one attribute where there a significant difference

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between male and female respondents. The Male respondents are more favourable and showed higher perspective towards skill courses than the female respondents. With regards to rural and urban institutional heads, they do not differ in their opinions in most of the attributes tested except in case of *three attributes* there a significant difference in the perspective of the respondents. The Rural institutional heads are more favourable and showed more positive perspective towards skill Programmes. Further, between the Northern and Southern district institutional heads, absolutely there is no differ in their opinions in all the attributes tested towards skill development Programmes in Goa. With regards to institutional heads from different talukas, they too do not differ in their opinions regarding all the attributes tested towards skill development Programmes. Finally, between institutional heads from different streams, they do not differ in their opinions in most of the attributes tested except in case of *two attributes* there exist a significant difference in respondents from different talukas towards skill Programmes conducted in Goa.

Thus based upon the above brief important findings, we can conclude that, ***"perspective of Institutional Heads for Skill Development Programmes is not significantly different.* It means the perspective of the institutional heads towards skill development programmes is favourable and positive. So, the null hypothesis is accepted.** The institutional heads in general are not different in their opinions whether they are male or female, rural or urban, north or south, various talukas and streams for skill development programmes conducted in the state of Goa and also they have shown a great deal of maturity and there is no much  difference in their opinions.

The chapter covered the various perspectives of Institutional Heads for which data was collected from different respondents based on gender, locality, districts, talukas and streams. The data was further tested with the statistical tools to find the results.

**5.1 Introduction**

In order to evaluate the Skill Development Programmes in Goa, it was important to seek opinions of the ongoing students of various categories in different institutions. The students considered for the study were 503, they are from High school 45 students, Higher secondary 125 students who were studying in vocational stream, 35 university students of MFS and MCA, ITI 130 students, HRDFS 56 students, EDP 12 trainees, apprenticeship trainees 28 trainees, security guards 21 trainees, training cum production centre 21 trainees and trainees of other initiatives taken by state government 30. It was significant to get the feedback from the ongoing students studying in various courses of skill development in Goa. It would indicate the level of education imparted by the various institutions and industrial training provided by the industrialist. Hence students and trainees were asked to give their opinion on the various courses taught in the institutions. The 41 courses were considered for the study ongoing students to find their attitude towards facilities available and the liking of the courses framed by the respective authority. The various trades taken for the study were 3 courses from HS such as IT, automobile and healthcare, 8 courses from vocational stream they are CRM, OSS, Auto engineering technology, CGDM, Insurance, Accounting and Auditing, Computer techniques and MREEDA. 2 courses from masters degree i.e. MFS and MCA, 8 courses from ITI namely electrician, COPA, plumber, welder, fitter, diesel mechanic, hospitality management and electronics, 6 courses from HRDFS such as computer techniques, business application, DTP, home nursing, a/c and refrigerator, and beautician. Only one course was considered i.e. EDP under Entrepreneurship development programme, Security guards under GHRSDC and tailoring and embroidery from Training cum Production Centre for the study. 8 different courses of apprenticeship training were also taken for study they are CNC operator, Electrician, Electronic mechanic, Fitter, Lab assistant, Mechanical engineering, plumber, Welder and Mechanic Diesel whereas 3 raining courses of Other Initiatives taken by the State Government were selected for the survey namely Agriculture, Fisheries and Urban development.

This chapter deals with the third objective of the study to know the attitude of ongoing students towards facilities available and the curriculum framed by the authority based on various statements prepared on skill programmes carried out by the various institutions in the state of Goa.

### 5.2 Social profile

To evaluate the attitude of Ongoing students towards skill development programmes in Goa for which students opinions from all over the Goa were considered to know the prevailing situation of various facilities available in the institutions as well as in the curriculum framed under skill development training programmes in the state of Goa. The ongoing students were asked to give their opinions through structured close ended questionnaires. A total of 503 ongoing students responded to the questionnaire which was considered for the study from 10 different streams, 41 trades and 12 different talukas in the state of Goa. The data collected from the different respondents is shown in the below tables which is as follows;

**Table 5.1 Gender**

| Sr No | Institution | Particulars | | Total |
|---|---|---|---|---|
| | | Male | Female | |
| 1 | HS (NSQF) | 36(80) | 9(20) | 45(100) |
| 2 | HSS (VOC) | 83(66.4) | 42(33.6) | 125(100) |
| 3 | ITI | 110(84.6) | 20(15.4) | 130*(100) |
| 4 | UNID | 20(57.1) | 15(42.9) | 35(100) |
| 5 | HRDFS | 26(46.4) | 30(53.6) | 56(100) |
| 6 | EDP | 8(66.7) | 4(33.3) | 12(100) |
| 7 | GHRSDC | 8(38.1) | 13(61.9) | 21(100) |
| 8 | TrCPC | - | 21(100) | 21(100) |
| 9 | ApprT | 26(92.9) | 2(7.1) | 28(100) |
| 10 | OITSG | 12(40) | 18(60) | 30(100) |
| **11** | **Total** | 329(65.4) | 174(34.6) | 503(100) |

*(Source: Field Work)*

Table 5.1 shows that most of the students/trainees opted for skill courses are males and less number of students are females. The majority of the students/trainees (Six streams out of ten streams) are dominated by male students whereas four streams are dominated by females. Most of the students from different streams are dominated by males such as NSQF, Vocational, ITI, UNID, EDP and Apprenticeship training whereas from other streams such as HRDFS, GHRSDC, TrCPC and OITSG are dominated by females.

**Table 5.2 District**

| Sr No | Institution | Particulars | | Total |
|---|---|---|---|---|
| | | North | South | |
| 1 | HS (NSQF) | 24(53%) | 21(47%) | 45(100%) |
| 2 | HSS (Voc) | 96(76.8%) | 29(23.2%) | 125(100%) |
| 3 | ITI | 81(62.3) | 49(37.7) | 130*(100) |
| 4 | UNID | 18(51.4) | 17(48.6) | 35(100) |
| 5 | HRDFS | 43(76.8) | 13(23.2) | 56(100) |
| 6 | EDP | 2(16.7) | 10(83.3) | 12(100) |
| 7 | GHRSDC | 15(71.4) | 6(28.6) | 21(100) |
| 8 | TrCPC | 20(95.2) | 1(4.8) | 21(100) |
| 9 | AprT | 24(85.7) | 4(14.3) | 28(100) |
| 10 | OITSG | 28(93.3) | 2(6.7) | 30(100) |
| **TOTAL** | | 351(69.8) | 152(30.2) | 503(100) |

**(Source: Field Work)**

It can be seen from the above Table 5.2 that majority of the students/trainees (69.8%) belong to North district rather than South district (30.2%). Most of the students of different stream are from North district except EDP stream where majority of the students are from South district.

**Table 5.3 Taluka**

| Sr. No | Particul-ars | HS (%) | HSSC (%) | UNID (%) | ITI (%) | HRDFS (%) | EDP (%) | GHRSDC (%) | TrCPC (%) | ApprT (%) | OITSG (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Pernem | 24(53.3) | 20(16) | 2(5.8) | 19(15.0) | 12(21.4) | - | 3(14.3) | 5(23.8) | 9(32.1) | 4(13.3) |
| 2 | Bardez | - | 36(28.8) | 8(22.9) | 40(32.6) | 12(21.4) | 2(16.7) | - | 2(9.5) | 6(21.4) | - |
| 3 | Tiswadi | - | 21(16.8) | 6(17.1) | 15(12.5) | 25(44.6) | - | 4(19) | 9(42.9) | 5(17.9) | 10(33.) |
| 4 | Bicholim | - | 1(0.8) | - | 2(1.6) | - | - | 3(14.3) | - | 1(3.6) | 2(6.7) |
| 5 | Sattari | - | - | - | 1(0.8) | - | - | 6(28.6) | - | - | 5(16.7) |
| 6 | Ponda | - | 19(15.2) | 3(8.7) | 2(0.8) | 5(8.9) | - | - | 5(23.8) | 3(10.7) | 6(20) |
| 7 | Salette | - | 14(11.2) | 13(37.1) | 28(18.4) | 2(3.7) | 7(58.3) | - | - | 4(14.3) | - |
| 8 | Quepem | - | 4(3.2) | 1(2.6) | | - | - | 2(9.5) | - | - | - |
| 9 | Mormugao | 21(46.7) | 1(0.8) | 2(5.8) | 21(16.7) | - | 2(16.7) | - | - | - | - |
| 10 | Sanguem | - | 9(7.2) | - | 1(0.8) | - | - | - | - | - | - |
| 11 | Dharbandora | - | - | - | 1(0.8) | - | - | - | - | - | - |
| 12 | Canacona | - | - | - | - | - | 1(8.3) | 3(14.3) | - | - | 3(10) |
| 11 | Total | 45(100%) | 125(100) | 35(100) | 130(100) | 56(100) | 12(100) | 21(100) | 21(100) | 28(100) | 30(100) |

**(Source: Field Work)**

In table 5.3 the researcher has tried his best to consider all the talukas if not equally from all the streams but atleast few students for each and every stream. In some streams no institutes were available in a particular taluka so it was not possible to consider those talukas. So also to find students from every taluka was not convenient too. The various 12 talukas considered for the study were six talukas from North district and six talukas from south district.

It is seen from the above table that students for HS (NSQF) were considered from only two talukas i.e. Pernem and Mormugao whereas 9 talukas were taken for HSSC (Vocational) i.e. 4 from North district and 5 from South district. For UNID students from 7 talukas were taken for the study i.e. 4 from North and 3 from South district. 4 talukas from north are Pernem 5.8%, Bardez 22.9%, Tiswadi 17.1% and Ponda 8.7% whereas from south 3 talukas namely Salcete 37.1%, Quepem 2.6% and Mormugao 5.8%. Majority of the students were collected from Salcete taluka. For ITI students 10 taluka were considered i.e. 6 from North and 4 from South, for HRDFS 5 taluka students i.e. 4 North and 1 south, for EDP 4 taluka students i.e. 1 North and 3 South. Majority of ITI students are from Bardez taluka i.e. 32.6% followed by 18.4% from Salcete, 16.7% Mormugao, 15.0% from Pernem, 12.5% from Tiswadi, 1.6% from Bicholim, and 0.8% each from Sattari, Ponda, Dharbadora and Sanguem. It means that ongoing students from ten talukas are considered for study from ITI stream. Majority of ongoing HRDFS

students are from Tiswadi area which consist of 44.6%, followed by 21.4% each from Pernem and Bardez taluka, 8.9% and 3.7% from Ponda and Salcete respectively which means five talukas are considered for the survey. The EDP students are mostly from Salcete taluka i. 58.3% followed 16.7% each from Bardez and Mormugao talukas and 8.3% from Canacona. GHRSDC students are selected from six talukas i.e. 4 talukas from North and 2 talukas from South. Students taken from 4 talukas of North are Pernem, Bardez, Bicholim and Sattari i.e. 14.3%, 19%, 14.3% and 28.6% whereas from South, students are from Quepem and Canacona i.e. 9.5% and 14.3% respectively. Majority of the students are from Sattari taluka. TrCPC students were selected from 4 different talukas from North district namely Pernem, Bardez, Tiswadi and Ponda i.e. 23.8%, 9.3%. 42.9% and 23.8% respectively. Six taluka students were selected for ApprT survey out of them 5 were from North district namely Pernem, Bardez, Tiswadi, Bicholim and Ponda and 1 taluka from South district i.e. Canacona. Most of the students were from North district i.e. 85.7% while 14.3% were from South district. In case of OITSG six talukas were considered for the survey out of which 5 talukas were from North district and 1 taluka from South district (Canacona). Most of the trainees from North are from Tiwadi taluka i.e. 33.3% followed by Ponda, Sattari, Pernem, Canacona and Bicholim i.e. 20%, 16.7%, 13.3%, 10% and 6.7% respectively.

**Table 5.4 Stream**

| Sr. No | Stream | Frequency | Percentage |
|--------|--------|-----------|------------|
| 1 | NSQF (SSC) | 45 | 8.9% |
| 2 | (HSSC) Vocational | 125 | 24.9% |
| 3 | UNID | 35 | 6.9% |
| 4 | ITI's | 130 | 25.8% |
| 5 | HRDFS | 56 | 11.1% |
| 6 | EDP | 12 | 2.4% |
| 7 | GHRSD | 21 | 4.2% |
| 8 | TrCPC | 21 | 4.2% |
| 9 | Apprt | 28 | 5.6% |
| 10 | OITSG | 30 | 5.9% |
| 11 | **Total** | **503** | **100%** |

*(Source: Field Work)*

Table 5.4 shows different streams, frequency and percentage. Majority of the students i.e. 25.8% are IIT's, 24.9% HSSC and least 2.4% are from EDP's. The highest percentage of ITI's and lowest percentage of EDP's have found in a study area.

**5.3 Selection of the course**

The personal interview with the students reveals that most of the NSQF, vocational, UNID, ITI, HRDFS, EDP, GHRSDC, TrCPC, ApprT, OITSG students/ trainees were well versed in taking their own decision to choose a particular course. The ongoing students were not dependent upon anyone to choose their education for career building. It shows that students are well matured in taking decision to join for the course. It can also be seen that parents do not interfere in choosing the course which makes sense from parents point of view because it is the life of the students and whatever education they take and the course they choose it for their career. Students know their best to choose a course. Some parents are either not aware since they are uneducated or they do not like to interfere in the decision of choosing a course. At the most the role of parents gets restricted only to guide and provide information about the various courses prevailing under various institutes. In fact it a wise decision of the parents to let their child choose the expected course whatever he likes to undergo further studies. Students showed their full confidence in selecting a course by their own and not dependent on anyone. There is no much more impact of friends, parents, media and public while choosing a course. It is noted that media and publicity has a mere impact on the decisions of the students for selecting a course.

**5.4 Testing of Hypothesis**

To verify the third objective of the study i.e. *to study the attitude of On-going students toward facilities available and curriculum in the state of Goa,* the following hypothesis was formed;

**H0: Attitude of On-going students towards facilities available and curriculum is satisfactory.**

**H1: Attitude of On-going students towards facilities available and curriculum is unsatisfactory.**

Further five sub-hypotheses were framed and tested with various statistical tools such as *Percentage, Mean score, Independent sample t-test and One way ANOVA* to serve the objective. The below hypothesis were analyzed and tested with reference to their Gender, District, Taluka, Stream and Trade. Further the data collected from the ongoing students was grouped into fourteen important areas to find out any difference in the opinions on the following aspects they are;

**A) Facilities available**

1) Class rooms

2) Library facility

3) Equipments of teaching aids

4) Infrastructure facilities

5) On the job training/ internship

6) Latest tools and equipments.

**B) Curriculum**

7) Trainers/ Faculties of the Course

8) Instructors for internship/training places

9) Theory teaching in the class

10) Practical training in the institutions

11) Syllabus framed for the course

12) Overall Curriculum of the course

To collect the information on the above area a set of twelve statements were designed. The first six statements were for facilities available and remaining six for curriculum. The respondents were asked to rank it on the basis of four-point Likert scale from 'Poor' 'Satisfactory'. 'Good' and 'Excellent'. 503 ongoing students from all over Goa belonging to High School, Higher Secondary, University Departments, ITI, HRDFS, EDP, GHRDC, Training cum Production Centre, Apprenticeship training institutes and Other initiatives taken by the state government were surveyed. The collected data was then grouped into five categories based: **Gender** (Male and Female), **D**istrict (North and South), **Taluka** (Pernem, Bardez, Tiswadi, Bicholim, Sattari, Ponda, Salcete, Quepem, Mormugao, Sanguem, Dharbandora and Canacona), **10 Streams** (High Schools-OITSG) and **41 Trades**.

**5.5 Analysis**

The following sections give the analysis of the data along with the comments according to: **Gender,** District, Taluka, Stream and Trade. In case of Gender and District, the *Independent sample t-test* and the *Mean scores* were used where as in case of Taluka, Stream and Trades **one way** *ANOVA test* is used.

## 5.5.1 Gender

The collected data of 503 ongoing students was classified in to Male (326) and Female students (177) which are further organized and Cross-tabulated to calculate the *Mean* score and *'t'* values. The **Table 5.5** shows the frequencies along with the percentages, **Table 5.6** gives the *Mean* score of male and female while **Table 5.7** gives the *'t'* values of various attributes. The tables shown below are the analysis of various attributes on the basis of gender.

**H01: There is no significant difference in the attitude of On-going male and female students towards facilities available and curriculum in the institutions.**

**Table 5.5: Table showing frequencies on attitude of ongoing students (Gender)**

| Statements | Scale | Male | | Female | | Total | |
|---|---|---|---|---|---|---|---|
| | | N | % | N | % | N | % |
| Class rooms | Poor | 6 | 1.9% | 10 | 5.6% | 16 | 3.2% |
| | Satisfactory | 71 | 22.0% | 31 | 17.5% | 102 | 20.4% |
| | Good | 165 | 51.1% | 88 | 49.7% | 253 | 50.6% |
| | Excellent | 81 | 25.1% | 48 | 27.1% | 129 | 25.8% |
| Library facility | Poor | 56 | 17.6% | 43 | 25.7% | 99 | 20.4% |
| | Satisfactory | 84 | 26.3% | 42 | 25.1% | 126 | 25.9% |
| | Good | 125 | 39.2% | 51 | 30.5% | 176 | 36.2% |
| | Excellent | 54 | 16.9% | 31 | 18.6% | 85 | 17.5% |
| Equipments of teaching aids | Poor | 5 | 1.6% | 15 | 9.1% | 20 | 4.2% |
| | Satisfactory | 53 | 16.9% | 26 | 15.8% | 79 | 16.5% |
| | Good | 147 | 46.8% | 67 | 40.6% | 214 | 44.7% |
| | Excellent | 109 | 34.7% | 57 | 34.5% | 166 | 34.7% |
| Infrastructure facilities | Poor | 13 | 4.0% | 18 | 10.2% | 31 | 6.2% |
| | Satisfactory | 43 | 13.4% | 34 | 19.2% | 77 | 15.5% |
| | Good | 181 | 56.4% | 81 | 45.8% | 262 | 52.6% |
| | Excellent | 84 | 26.2% | 44 | 24.9% | 128 | 25.7% |
| On-the job training/ internship. | Poor | 33 | 10.4% | 12 | 7.4% | 45 | 9.4% |
| | Satisfactory | 56 | 17.6% | 30 | 18.5% | 86 | 17.9% |
| | Good | 161 | 50.6% | 95 | 58.6% | 256 | 53.3% |
| | Excellent | 68 | 21.4% | 25 | 15.4% | 93 | 19.4% |
| Latest tools and equipments. | Poor | 32 | 9.9% | 27 | 15.4% | 59 | 11.9% |
| | Satisfactory | 40 | 12.4% | 33 | 18.9% | 73 | 14.7% |
| | Good | 160 | 49.7% | 75 | 42.9% | 235 | 47.3% |
| | Excellent | 90 | 28.0% | 40 | 22.9% | 130 | 26.2% |
| Trainers/ Faculties of the Course | Poor | 5 | 1.5% | 0 | 0.0% | 5 | 1.0% |
| | Satisfactory | 24 | 7.4% | 5 | 2.8% | 29 | 5.8% |
| | Good | 155 | 47.7% | 73 | 41.2% | 228 | 45.4% |
| | Excellent | 141 | 43.4% | 99 | 55.9% | 240 | 47.8% |
| Instructors for internship/training places | Poor | 31 | 9.7% | 12 | 7.4% | 43 | 9.0% |
| | Satisfactory | 38 | 11.9% | 16 | 9.9% | 54 | 11.2% |
| | Good | 175 | 55.0% | 83 | 51.2% | 258 | 53.8% |
| | Excellent | 74 | 23.3% | 51 | 31.5% | 125 | 26.0% |
| Theory teaching in the class | Poor | 8 | 2.5% | 1 | 0.6% | 9 | 1.8% |
| | Satisfactory | 29 | 9.0% | 6 | 3.4% | 35 | 7.0% |
| | Good | 142 | 44.0% | 101 | 57.1% | 243 | 48.6% |
| | Excellent | 144 | 44.6% | 69 | 39.0% | 213 | 42.6% |
| Practical training in the institutions | Poor | 8 | 2.5% | 0 | 0.0% | 8 | 1.6% |
| | Satisfactory | 14 | 4.3% | 13 | 7.3% | 27 | 5.4% |
| | Good | 107 | 32.9% | 56 | 31.6% | 163 | 32.5% |
| | Excellent | 196 | 60.3% | 108 | 61.0% | 304 | 60.6% |
| Syllabus framed for the course | Poor | 4 | 1.3% | 5 | 2.8% | 9 | 1.8% |
| | Satisfactory | 47 | 15.0% | 30 | 17.0% | 77 | 15.7% |
| | Good | 191 | 61.0% | 108 | 61.4% | 299 | 61.1% |
| | Excellent | 71 | 22.7% | 33 | 18.8% | 104 | 21.3% |
| Curriculum of the course | Poor | 1 | 0.3% | 4 | 2.3% | 5 | 1.0% |
| | Satisfactory | 37 | 11.8% | 17 | 9.8% | 54 | 11.1% |
| | Good | 197 | 62.9% | 117 | 67.6% | 314 | 64.6% |
| | Excellent | 78 | 24.9% | 35 | 20.2% | 113 | 23.3% |

**Table 5.6: Table showing group statistics on attitude of ongoing students (Gender)**

| Statements | Gender | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| Class rooms | Male | 325 | 2.99 | .741 | .041 |
| | Female | 175 | 2.98 | .823 | .062 |
| Library facility | Male | 321 | 2.56 | .970 | .054 |
| | Female | 165 | 2.41 | 1.064 | .083 |
| Equipments of teaching aids | Male | 316 | 3.14 | .757 | .043 |
| | Female | 164 | 3.00 | .933 | .073 |
| Infrastructure facilities | Male | 323 | **3.05** | .748 | .042 |
| | Female | 175 | 2.85 | .912 | .069 |
| On-the job training/ internship | Male | 328 | 1.19 | .402 | .022 |
| | Female | 175 | **1.29** | .456 | .034 |
| Latest tools and equipments. | Male | 324 | **3.92** | .981 | .054 |
| | Female | 173 | 3.67 | 1.068 | .081 |
| Trainers/ Faculties of the Course | Male | 327 | 3.33 | .680 | .038 |
| | Female | 175 | **3.55** | .649 | .049 |
| Instructors for internship/training places | Male | 320 | 2.91 | .870 | .049 |
| | Female | 160 | **3.08** | .832 | .066 |
| Theory teaching in the class | Male | 325 | 3.31 | .736 | .041 |
| | Female | 175 | 3.34 | .574 | .043 |
| Practical training in the institutions | Male | 327 | 3.51 | .695 | .038 |
| | Female | 175 | 3.53 | .632 | .048 |
| Syllabus framed for the course | Male | 315 | 3.05 | .651 | .037 |
| | Female | 174 | 2.96 | .691 | .052 |
| Curriculum of the course | Male | 315 | 3.13 | .605 | .034 |
| | Female | 171 | 3.06 | .630 | .048 |

**Table 5.7: Table showing t-values on attitude of ongoing students (Gender)**

| Statements | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | |
|---|---|---|---|---|---|---|
| | | F | Sig. | T | Df | Sig. (2-tailed) |
| Class rooms | Equal variances assumed | 1.255 | .263 | .231 | 498 | .817 |
| | Equal variances not assumed | | | .224 | 325.732 | .823 |
| Library facility | Equal variances assumed | 4.640 | .032 | 1.577 | 484 | .115 |
| | Equal variances not assumed | | | 1.531 | 305.432 | .127 |
| Equipments of teaching aids | Equal variances assumed | 2.851 | .092 | 1.801 | 478 | .072 |
| | Equal variances not assumed | | | 1.687 | 276.657 | .093 |
| Infrastructure facilities | Equal variances assumed | 15.096 | .000 | 2.724 | 496 | **.007** |
| | Equal variances not assumed | | | 2.569 | 302.120 | .011 |
| On-the job training/ internship. | Equal variances assumed | 21.516 | .000 | -2.518 | 501 | **.012** |
| | Equal variances not assumed | | | -2.424 | 319.329 | .016 |
| Latest tools and equipments. | Equal variances assumed | 9.009 | .003 | 2.583 | 495 | **.010** |
| | Equal variances not assumed | | | 2.517 | 326.521 | .012 |
| Trainers/ Faculties of the Course | Equal variances assumed | 1.366 | .243 | -3.525 | 500 | **.000** |
| | Equal variances not assumed | | | -3.576 | 370.333 | .000 |
| Instructors for internship/training places | Equal variances assumed | .148 | .701 | -2.109 | 478 | **.035** |
| | Equal variances not assumed | | | -2.140 | 331.059 | .033 |
| Theory teaching in the class | Equal variances assumed | 10.634 | .001 | -.500 | 498 | .617 |
| | Equal variances not assumed | | | -.538 | 435.081 | .591 |
| Practical training in the institutions | Equal variances assumed | .445 | .505 | -.280 | 500 | .780 |
| | Equal variances not assumed | | | -.288 | 385.889 | .774 |
| Syllabus framed for the course | Equal variances assumed | .108 | .742 | 1.447 | 487 | .148 |
| | Equal variances not assumed | | | 1.423 | 339.212 | .156 |
| Curriculum of the course | Equal variances assumed | 1.530 | .217 | 1.175 | 484 | .241 |
| | Equal variances not assumed | | | 1.161 | 337.191 | .246 |

### 5.5.1.1 Class rooms

Table 5.5 shows the reply to the statement given by the ongoing students towards conditions of class rooms where the skill courses are conducted by the various institutions in the state of Goa. The data shows that majority of the male and female

ongoing students i.e. 51.1% and female 49.7% claimed that the class rooms are good in condition while 25.1% and 27.1% said excellent while 22.0% and 17.5% stated satisfactory whereas 1.9% and 5.6% of male and female students feels classrooms are poor respectively. It means that most of the students from both the sexes are satisfied with the prevailing condition of the class rooms provided by the institutions which shows the attitude of the students is positive towards class rooms. During the personal interview with the students it is noticed that HS and HSSC class rooms are in good condition while ITI class rooms were improved recently in the past years as compared to past decades. The EDP class rooms are really excellent which is seen during the visit to various institutes. It is also observed that most of the UNID students were unsatisfied and claimed that their classrooms are not good enough. Trainees of TrCPC disclosed that their condition of classrooms is really poor. The classes are conducted in a house containing one room which is taken on rental basis without any much more facilities.

The ***Mean*** score between the Male and Female respondents (table 5.6) is 2.99 and 2.98 respectively, which means that both sexes do not difference in their attitude and they are satisfied towards the condition of the class rooms. It is the male respondents who are slightly more satisfied than female respondents.

The *F* value (table 5.7) is 1.255 and its corresponding *p* value is 0.263, which is more than 0.05 at 5% level of significance. The *'t'* value for equality of means is 0.231 and its corresponding two tailed significant value is 0.817 which is higher than 0.05 at 5% level of significance and therefore we can say that there is no significant difference between Male and Female students with reference to the class rooms conditions of the institutions. Thus over all it can be said is that both Male and Female students consider class rooms condition is satisfactory.

### 5.5.1.2 Library facility

The table 5.5 shows that majority of the ongoing students from male and female i.e. 39.2% and 30.5% feels  the library facility is good followed 26.3% and 25.1% feels it is satisfactory whereas 16.9% and 18.6% said excellent and few respondents feels it is poor. It means that the majority of the male as well as female respondents are satisfied for the library facilities provided by the institutions. It is also observed during the personal interview that most of the institutions do provide library facility in their respective institution for acquiring more and more knowledge through books and access of internet facility. UNID students avail of better and higher standard of library facilities in Goa

followed by HRDFS students. But students of 4 streams namely GHRSDC, TrCPC, ApprT and OITSG trainees do not avail any sort of qualitative facility of library. The knowledge of the students remains up to the syllabus and whatever taught in the class by the teachers. The trainees do not get any opportunities to read and acquire more knowledge due to lack of library facilities available at the training centers.

Further, the *Mean* score between Male and Female institutional heads (table 5.6) is 2.56 and 2.41, which implies that between Male and Female students, they are the male students who are more satisfied with the library facilities provided by the institutions than female respondents. However the overall result shows that both sexes of respondents are satisfied.

The data was further analyzed (table 5.7) with the help of '*t*' test. In this case, the *F* ratio for Levene's test for equality of variance is significant (F=4.640, p=0.032) where *(p<0.05)* and therefore we take equal variance not assumed. The '*t*' value is 1,531 and its corresponding significant value is 0.127 which is greater than 0.05, thus we can say that both sexes do not have any significant difference in their opinions whether it is a male or female respondents, they both are satisfied with library facility provided in the institutions.

### 5.5.1.3 Equipments of teaching aids.

Teaching aids helps students to understand faster. Teaching aids helps students to understand the topic faster and to remember easily. Teaching aids are very essential in today's world since lot can be shown to students related to the topic and impart lots of knowledge to the students. Table 5.5 depicts that majority of the male and female ongoing students i.e. 46.8% and 40.6% respectively said the institutions do have good provision for teaching aids. It means that majority of males and Females students are satisfied with facilities of equipments of teaching aids available in the institutions and used by the faculties. It means that most of the teachers of different streams make use teaching aids while teaching. It is noticed during the personal interview that trainers from TrCPC do not make use of any teaching equipments but only stresses on practical teaching.

The *mean* score between Male and Female students (table 5.6) is 3.14 and 3.00 respectively. It means that the male students are more satisfied than the female students with respect to availability and use of teaching facilities in the various institutions.

The Levene's test for equality of variance (table 5.7) is not significant (0.092) where $P$ value is greater than 0.05 at 5% level of significance. The $'t'$ value is 1.801 and the corresponding $p$ value is not significant i.e. 0.072 which more than 0.05 at 5% level of significance. It means that there is no significant difference between the gender of the students and the available facility of teaching equipments in the institutions.

### 5.5.1.4 Infrastructure facilities.

Table 5.5 reveals that majority of male and female students i.e. 56.4% and 45.8% respectively said infrastructure facility in the institutions is good whereas 34.7% and 34.5% commented as excellent and very students claimed to be poor. It means majority of the respondents from both sexes are satisfied with the infrastructure facility provided by the institutions. It is noticed during the visits to various institutions that government and private institutions have made rigorous improvement in the infrastructure to attract students in their own institute. The Government has offered funds for the development of infrastructure which benefited most of the institutes to build their premises. Even some buildings of the institutes are shifted to some other places to provide better infrastructure to the institutions. The UNID student showed un-satisfaction while  trainees of TrCPC commented that infrastructure is poor  and bad since the class are conducted in a single room of rented houses or in the government school.

The *Mean* score between Male and Female respondents (table 5.6) is 3.05 and 2.85 respectively. This shows that there is a significant difference between Male and Female respondents whereby male respondents have an edge over female respondents as far as infrastructure facilities are concerned. It is the male respondents who are more satisfied towards infrastructure facilities available in the institutes than female respondents.

The *F* ratio for Levene's test for equality of variance (table 5.7) is significant (0.000) which is less than 0.05 at 5% level of significance. Hence we take the $'t'$ value of equal variance not assumed. The *'t'* value 2.569 and its corresponding $p$ value is 0.011 which is lower than 0.05 at 5% level of significance It means that the two sexes are significantly different in their opinions towards infrastructure facilities available in the institutions.

### 5.5.1.5 On-the job training/internship.

The scheme of internship and training on the job can make students highly skilled. Table 5.5 shows that 50.6% and 58.6% of the male and female students respectively commented on facilities of on the job training and internship provided is good while 21.4% and 15.4% as excellent. It means that majority of the students from both the sexes are satisfied with on-the job and internship provided in the industries or at work place. It can be interpreted from the personal interview with the students that there is no facility for NSQF students to provide internship beside IT course. The Vocational, UNID, ITI, HRDFS, EDP, GHRSDC, TrCPC, ApprT students/trainees revealed that they get training facility during the course work. The trainees from OITSG are not sending at all for any sort of training in the industries in their respective field.

The *Mean* score between Male and Female respondents (table 5.6) is 1.19 and 1.29 respectively which shows that female students are more satisfied than male respondents with respect to on-the job training and internship provided in the industries.

In case of the '*t*' test analyses, the *F* ratio for Levene's test for equality of variance (table 5.7) is highly significant i.e. 0.000 ($P<0.05$). So, we consider '*t*' value of equal variance not assumed. The '*t*' value for equality of means is -2.424 and its corresponding *p* value is 0.016 which is less than 0.05 at 5 % level of Significance. It means that there is a significant difference between the Male and the Female respondents with regards to on the job training/ internship. The attitude of male and female students is different from each other.

### 5.5.1.6 Latest tools and equipments.

The table 5.5 shows that majority of the male and female respondents i.e. 49.7% and 42.9% said good whereby 28.0% and 22.9% said excellent respectively. It indicates that both sexes of the students are satisfied with the available facility of latest tools and equipments in the institutions. The institutions are trying their best to provide upgraded facility of latest tools and equipments for the benefit of the students and also to make students highly skilled. During the personal interaction with the students it is noticed that ITI students more in close touch with new and latest tools and equipments followed by students from other streams such as NSQF, vocational, UNID, HRDFS and OITSG. Trainees of GHRSDC and ApprT were slightly unhappy since they are not allowed to use latest tools and equipment and they are trained on the same old machines and equipment used for several years before.

The *mean* score between Male and Female respondents (table 5.6) is 3.92 and 3.67 respectively. This means that male students are more satisfied as compared to female students towards facilities available to use latest technology and equipments.

According to the *'t'* test analyses, the *F* ratio for Levene's test for equality of variance (table 5.7) is significant (F=9.009, p=0.003) where *(p<0.05),* therefore we take equal variance not assumed. The *'t'* value for equality of means is 2.517 and its corresponding *p* value is 0.012 which is lower than 0.05 at 5 % level of Significance. It means that there is a significant difference between Male and Female respondents towards facilities available to use latest tools and equipments. In other words both Male and Female students differ in their opinion towards available facilities to use latest tools and equipments.

### 5.5.1.7 Trainers/Faculties of the course

Table 5.5 to comment on trainers or faculties appointed for the course, the overall result of the male and female students shows that 91.1 % and 97.1% of the students said good and excellent whereby very few students were negative. It means majority of the male and female students are highly satisfied and satisfied respectively with trainers and faculties teaching in the various institutions. It is also noticed during personal visit to the various institutions that teachers/faculties teaching in the institutes are well trained and excellent.

The *Mean* score between Male and Female respondents (table 5.6) is 3.33 and 3.55 respectively. It means that female students are at the forefront and are more satisfied than female students with respect to trainers/faculties of the courses.

The Levene's test for equality of variance (table 5.7) is not significant (0.243) where the *P>0.05* at 5% level of significance. The *'t'* value is -3.525 and its corresponding *p* value is 0.000 which is significant. It means that there is a difference between the attitude of male and female students towards teachers/faculties teaching in the institutions.

### 5.5.1.8 Instructors for internship/training

In table 5.5 an attempt was made to find the quality of an instructor for internship at training places which shows that majority of male and female students i.e. 55.0% and 51.2% said good while 23.3% and 31.5% claimed excellent. It means that majority of the respondents are satisfied with respect to instructors for internship.

The *Mean* score between male and female students (table 5.6) is 2.91 and 3.08 respectively which indicates that female students are more satisfied towards instructors for internship than male students.

The *F* ratio for Levene's test of equality of variance (table 5.7) is not significant (0.148) and the *p* value is 0.701 which is higher than 0.05 at 5 % level of significance. The *'t'* value is -2.109 and its corresponding *p* value is 0.035 which is less than 0.05. It indicates that there is a significant difference between the attitude of male and female students towards instructors for internship or training on-the job.

### 5.5.1.9 Theory teaching in the class.

Table 5.5 shows whether students are satisfied about the theory teaching in the class. The combined results reveals that Majority of male and female students i.e. 44.0% and 57.1% stated it is good while 44.6% and 39.0% said excellent respectively to the theory teaching in the class and a very negligible students claimed to be poor. It means the attitude of the students is satisfied about the theory taught in the class for different courses under skill development programmes.

The *mean* score between the male and female students (table 5.6) is 3.31 and 3.34 respectively, which shows that between the Male and Female students, they are the female respondents who are little more satisfied with respect to theory taught compared to male respondents.

In case of *'t'* test analyses, the *F* ratio for Levene's test for equality of variance (table 5.7) is significant (10.634) where the *P* value is 0.001 which more than 0.05. Therefore we take equal variance not assumed. The *'t'* value is -0.538 and its corresponding *p* value is 0.591 which is more than 0.05 at 5% level of significance. This means that there is no significant difference in the attitude between Male and female respondents for the theory taught in the class.

### 5.5.1.10 Practical training in the institutions

It is can be observed from table 5.5 that majority students from both sexes i.e. 60.3% of male and 61.0% of female claimed to be excellent while 32.9% of male and 31.6% of female said good with respect to the practical training. It means majority of the students whether male or female are highly satisfied towards practical training offered by the various institutions. It is observed during the personal interaction with the students that almost all students are happy for the practical training. Most of the institutes are

emphasizing on offering advance training to the students in their respective trade so that students can successfully take up job in their respective field. It shows that the efforts and interest taken by the institutions in providing practical training helps students to learn the requirement of job in advance during the course and makes them confident in taking up job in the respective field.

The *Mean* score between the Male and Female students (table 5.6) is 3.51 and 3.53 respectively, which reveals that in-between the Male and female students, female students are more satisfied than the male students towards practical training provided in the institutions.

The *F* ratio for Levene's test for equality of variance (table 5.7) is not significant (0.445) and the *P* value is 0.505 which is greater than 0.05 at 5% level of significance. In this case the *'t'* value is -0.280 and its corresponding *P* value is 0.780 which is higher than 0.05 at 5% level of Significance. This means that there is no significant difference between both the sexes of the students towards practical training.

### 5.5.1.11 Syllabus framed for the course

Table 5.5 shows that majority of male and female students i.e. 61.0% and 61.4% of the students stated good and 22.7% and 18.8% claimed excellent whereby very few students said poor for the syllabus framed. It means majority of the respondents are satisfied towards syllabus framed for the course by the concern authority. During the personal interaction with the students some students disclosed that syllabus framed for the course is good but it is necessary to update every year as per the current changes in the market and as per the needs and expectations of the employers.

The *Mean* score between Male and Female respondents (table 5.6) is 3.05 and 2.96 respectively. It means that male students are at the upper edge and more satisfied than female students with respect to syllabus taught in the institutions.

The Levene's test for equality of variance (table 5.7) is not significant (0.742) where the *P*>0.05 at 5% level of significance. The *'t'* value is -1.447 and its corresponding *p* value is 0.148 which is not significant. It means that there is no difference between the attitude of male and female students towards syllabus framed by the authority and taught in the institutions.

**5.5.1.12 Curriculum of the course**

In table 5.5 an attempt was made to find the curriculum framed for the course is appropriate which shows that majority of male and female students i.e. 62.9% and 67.6% said good while 24.9% and 20.2% claimed excellent respectively. It means that majority of the male and female students are satisfied with respect to curriculum of the course.

The *Mean* score between male and female students (table 5.6) is 3.13 and 3.06 respectively which indicates that they are the male students are more satisfied with the curriculum followed by the institutions rather than female students.

The *F* ratio for Levene's test of equality of variance (table 5.7) is not significant (1.530) and the *p* value is 0.217 which is higher than 0.05 at 5 % level of significance. The *'t'* value is 1.175 and its corresponding *p* value is 0.241 which is more than 0.05. It indicates that there is no significant difference between the attitude of male and female students towards curriculum prepared for the course.

To sum up the attitude of ongoing students on the basis of gender, the analyses of with the help of *t*-test for equality of means whereby *p* value in most of the attributes is not significant. The *'t'* value of independent sample t- test for equal variances in most of the attributes (7) are not significant (*p*>0.05) at 5% level of significance except in case of 5 attributes where a significant difference was noticed. The statement of no significant difference are *Class rooms, Library facilities, Teaching aids, theory teaching in the class, Practical training in the institutions, Syllabus framed for the course and curriculum framed for the course.* The attributes of significant difference are *Infrastructure facilities, on-the job training/ internship, latest tools and equipments, Teachers/ Faculty of the Courses and Instructors for internship/training places* where the *'p'* value is less than 0.05. The **Mean** score between Male and Female Ongoing students shows that there exist a significant difference in 5 attributes tested under independent sample t-test and remaining (7 attributes) there is no significant differences. A difference is noticed in the variables like *Infrastructure facilities (**3.05** and 2.85), on-the job training/ internship (1.19 and **1.29**), latest tools and equipments (**3.92** and 3.67), Teachers/ Faculties of the Course (3.33 and **3.55**), Instructors for internship/training places (2.91 and **3.08**),* where the mean values in-between Male and Female ongoing students are different. The mean values indicate that female students are more satisfied or happier than the male students with respect to most of attributes. So, whether they are Male or Female students, there is no much difference between the two groups in their attitude for most of the statements tested and both sexes of students are satisfied, **thus the null hypothesis is accepted.**

## 5.5.2 District

For purpose of analysis, the data collected was divided into two **Districts** namely South Goa and North Goa. The total numbers of students surveyed were 503 students from Goa out of which 352 students were from North Goa and 151 were from North Goa. The statistical tools such as *Percentages, Mean* score, and *'t'* test was used to test the validity of the attributes. **Table 5.8** shows the **frequencies** along with the percentages, **Table 5.9** gives the **mean** score and **Table 5.10** shows the *'t'* values. The below given tables shows the analysis of each of the statements:

**H02: There is no significant difference in the attitude of On-going North and South district students towards facilities available and curriculum in the State of Goa.**

**Table 5.8: Table showing frequencies on attitude of ongoing students (District)**

| | | North | | South | | Total | |
|---|---|---|---|---|---|---|---|
| | | N | % | N | % | N | % |
| Class rooms | Poor | 14 | 4.0% | 2 | 1.4% | 16 | 3.2% |
| | Satisfactory | 79 | 22.4% | 23 | 15.5% | 102 | 20.4% |
| | Good | 169 | 48.0% | 84 | 56.8% | 253 | 50.6% |
| | Excellent | 90 | 25.6% | 39 | 26.4% | 129 | 25.8% |
| Library facility | Poor | 90 | 26.2% | 9 | 6.3% | 99 | 20.4% |
| | Satisfactory | 85 | 24.8% | 41 | 28.7% | 126 | 25.9% |
| | Good | 100 | 29.2% | 76 | 53.1% | 176 | 36.2% |
| | Excellent | 68 | 19.8% | 17 | 11.9% | 85 | 17.5% |
| Equipments of teaching aids | Poor | 18 | 5.2% | 2 | 1.5% | 20 | 4.2% |
| | Satisfactory | 59 | 17.0% | 20 | 15.2% | 79 | 16.5% |
| | Good | 148 | 42.7% | 66 | 50.0% | 214 | 44.7% |
| | Excellent | 122 | 35.2% | 44 | 33.3% | 166 | 34.7% |
| Infrastructure facilities | Poor | 24 | 6.9% | 7 | 4.7% | 31 | 6.2% |
| | Satisfactory | 55 | 15.7% | 22 | 14.9% | 77 | 15.5% |
| | Good | 175 | 50.0% | 87 | 58.8% | 262 | 52.6% |
| | Excellent | 96 | 27.4% | 32 | 21.6% | 128 | 25.7% |
| On-the job training/ internship | Poor | 40 | 11.8% | 5 | 3.5% | 45 | 9.4% |
| | Satisfactory | 56 | 16.6% | 30 | 21.1% | 86 | 17.9% |
| | Good | 168 | 49.7% | 88 | 62.0% | 256 | 53.3% |
| | Excellent | 74 | 21.9% | 19 | 13.4% | 93 | 19.4% |
| Latest tools and equipments. | Poor | 47 | 13.4% | 12 | 8.2% | 59 | 11.9% |
| | Satisfactory | 50 | 14.3% | 23 | 15.6% | 73 | 14.7% |
| | Good | 168 | 48.0% | 67 | 45.6% | 235 | 47.3% |
| | Excellent | 85 | 24.3% | 45 | 30.6% | 130 | 26.2% |
| Trainers/ Faculties of the Course | Poor | 5 | 1.4% | 0 | 0.0% | 5 | 1.0% |
| | Satisfactory | 21 | 5.9% | 8 | 5.4% | 29 | 5.8% |
| | Good | 140 | 39.7% | 88 | 59.1% | 228 | 45.4% |
| | Excellent | 187 | 53.0% | 53 | 35.6% | 240 | 47.8% |
| Instructors for internship/training places | Poor | 39 | 11.5% | 4 | 2.8% | 43 | 9.0% |
| | Satisfactory | 33 | 9.8% | 21 | 14.8% | 54 | 11.2% |
| | Good | 170 | 50.3% | 88 | 62.0% | 258 | 53.8% |
| | Excellent | 96 | 28.4% | 29 | 20.4% | 125 | 26.0% |
| Theory teaching in the class | Poor | 7 | 2.0% | 2 | 1.3% | 9 | 1.8% |
| | Satisfactory | 24 | 6.8% | 11 | 7.4% | 35 | 7.0% |
| | Good | 169 | 48.1% | 74 | 49.7% | 243 | 48.6% |
| | Excellent | 151 | 43.0% | 62 | 41.6% | 213 | 42.6% |
| Practical training in the institutions | Poor | 6 | 1.7% | 2 | 1.3% | 8 | 1.6% |
| | Satisfactory | 16 | 4.5% | 11 | 7.4% | 27 | 5.4% |
| | Good | 113 | 32.0% | 50 | 33.6% | 163 | 32.5% |
| | Excellent | 218 | 61.8% | 86 | 57.7% | 304 | 60.6% |
| Syllabus framed for the course | Poor | 9 | 2.6% | 0 | 0.0% | 9 | 1.8% |
| | Satisfactory | 61 | 17.8% | 16 | 10.9% | 77 | 15.7% |
| | Good | 204 | 59.6% | 95 | 64.6% | 299 | 61.1% |
| | Excellent | 68 | 19.9% | 36 | 24.5% | 104 | 21.3% |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Poor | 5 | 1.5% | 0 | 0.0% | 5 | 1.0% |
| Curriculum of the course | Satisfactory | 38 | 11.2% | 16 | 11.0% | 54 | 11.1% |
| | Good | 212 | 62.4% | 102 | 69.9% | 314 | 64.6% |
| | Excellent | 85 | 25.0% | 28 | 19.2% | 113 | 23.3% |

## Table 5.9: Table showing group statistics on attitude of ongoing students (District)

| Group Statistics | | | | | |
|---|---|---|---|---|---|
| | District | N | Mean | Std. Deviation | Std. Error Mean |
| Class rooms | North | 354 | 2.95 | .800 | .043 |
| | South | 146 | 3.08 | .686 | .057 |
| Library facility | North | 345 | **2.43** | 1.082 | .058 |
| | South | 141 | **2.70** | .755 | .064 |
| Equipments of teaching aids | North | 349 | 3.07 | .858 | .046 |
| | South | 131 | 3.15 | .725 | .063 |
| Infrastructure facilities | North | 352 | 2.99 | .842 | .045 |
| | South | 146 | 2.97 | .747 | .062 |
| On-the job training/ internship | North | 356 | 1.24 | .432 | .023 |
| | South | 147 | 1.20 | .404 | .033 |
| Latest tools and equipments. | North | 352 | 3.79 | 1.011 | .054 |
| | South | 145 | 3.93 | 1.032 | .086 |
| Trainers/ Faculties of the Course | North | 355 | **3.46** | .713 | .038 |
| | South | 147 | **3.30** | .566 | .047 |
| Instructors for internship/training places | North | 340 | 2.94 | .928 | .050 |
| | South | 140 | 3.01 | .668 | .056 |
| Theory teaching in the class | North | 353 | 3.33 | .690 | .037 |
| | South | 147 | 3.31 | .670 | .055 |
| Practical training in the institutions | North | 355 | 3.54 | .664 | .035 |
| | South | 147 | 3.47 | .695 | .057 |
| Syllabus framed for the course | North | 344 | **2.97** | .693 | .037 |
| | South | 145 | **3.14** | .585 | .049 |
| Curriculum of the course | North | 342 | 3.11 | .640 | .035 |
| | South | 144 | 3.08 | .548 | .046 |

## Table 5.10: Table showing t-values on attitude of ongoing students (District)

| Statements | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | |
|---|---|---|---|---|---|---|
| | | F | Sig. | T | Df | Sig. (2-tailed) |
| Class rooms | Equal variances assumed | 3.940 | .048 | -1.631 | 498 | .103 |
| | Equal variances not assumed | | | -1.739 | 313.174 | .083 |
| Library facility | Equal variances assumed | 50.326 | .000 | -2.666 | 484 | **.008** |
| | Equal variances not assumed | | | -3.085 | 367.841 | .002 |
| Equipments of teaching aids | Equal variances assumed | 2.808 | .094 | -.836 | 478 | .404 |
| | Equal variances not assumed | | | -.902 | 274.403 | .368 |
| Infrastructure facilities | Equal variances assumed | 2.832 | .093 | .250 | 496 | .803 |
| | Equal variances not assumed | | | .262 | 303.495 | .793 |
| On-the job training/ internship | Equal variances assumed | 2.559 | .110 | .767 | 501 | .444 |
| | Equal variances not assumed | | | .788 | 289.415 | .431 |
| Latest tools and equipments. | Equal variances assumed | .215 | .643 | -1.408 | 495 | .160 |
| | Equal variances not assumed | | | -1.396 | 263.405 | .164 |
| Trainers/ Faculties of the Course | Equal variances assumed | 9.310 | .002 | 2.376 | 500 | **.018** |
| | Equal variances not assumed | | | 2.612 | 340.208 | .009 |
| Instructors for internship/training places | Equal variances assumed | 15.148 | .000 | -.812 | 478 | .417 |
| | Equal variances not assumed | | | -.928 | 355.762 | .354 |
| Theory teaching in the class | Equal variances assumed | .162 | .688 | .191 | 498 | .848 |
| | Equal variances not assumed | | | .194 | 280.561 | .847 |
| Practical training in the institutions | Equal variances assumed | 1.254 | .263 | 1.082 | 500 | .280 |
| | Equal variances not assumed | | | 1.061 | 261.711 | .289 |
| Syllabus framed for the course | Equal variances assumed | .139 | .710 | -2.589 | 487 | **.010** |
| | Equal variances not assumed | | | -2.773 | 318.075 | .006 |
| Curriculum of the course | Equal variances assumed | 4.184 | .041 | .455 | 484 | .649 |
| | Equal variances not assumed | | | .485 | 311.263 | .628 |

### 5.5.2.1 Class rooms

The table 5.8 shows that majority of ongoing students from North and South said class room are good i.e. 48.0% and female 56.8% whereas 25.6% and 26.4% claimed to be excellent while 22.4% and 15.5% stated satisfactory whereas 4.0% and 1.4% of male and female students respectively feels classrooms are poor. It means that most of the students from both the districts are satisfied with the prevailing condition of the class rooms provided by the institutions.

The *Mean* score between the Male and Female respondents (table 5.9) is 2.95 and 3.08 respectively, which means that both sexes do not difference much in their attitude whereby they are satisfied with the prevailing condition of the class rooms. They are the female respondents who are slightly more satisfied than male respondents.

The *F* value (table 5.10) is 3.940 and its corresponding *p* value is 0.048, which is less than 0.05 at 5% level of significance. Hence, we take equal variance not assumed. The *'t'* value for equality of means is -1.739 and its corresponding two tailed significant value is 0.083 which is higher than 0.05 at 5% level of significance. It means that there is no significant difference between students of both Male and Female students from two different districts and they are satisfied with the condition of class rooms provided by the institutions.

### 5.5.2.2 Library facility

The table 5.8 shows that majority of the ongoing students from north and south districts i.e. 29.2% and 53.1% feels  the library facility is good followed 26.2% of north feels poor and 28.7% of south feels it is satisfactory whereas 19.8% and 11.9% of north and south respectively said excellent. It means that the majority of the north and south students are satisfied for the library facilities provided by the various institutions.

Further, the *Mean* score between students of north and south district (table 5.9) is 2.43 and 2.70, which implies that between north and south district students, students from south are more satisfied with the library facilities than north district students.

The data was further analyzed with the help of '*t*' test (table 5.10) in which the *F* ratio for Levene's test for equality of variance is significant (F=50.326, p=0.000) where *(p<0.05)* and therefore we take equal variance not assumed. The *'t'* value is -3.085 and its corresponding significant value is 0.002 which is lower than 0.05, thus we can say that students from north and south district are significantly different with the library facility provided in the institutions.

### 5.4.2.3 Equipments of teaching aids.

Table 5.8 shows that majority of the north and south districts ongoing students i.e. 42.7% and 50.0% said the institutions do have good provision for teaching aids and 35.2% and 33.3% said excellent respectively. It means that majority of north and south students are fully satisfied with facilities of equipments of teaching aids available in the institutions and used by the faculties.

The *mean* score between north and south district students (table 5.9) is 3.07 and 3.15 respectively. It means that the south students are more satisfied than the north students with respect to availability of teaching aids in the various institutions.

The F ratio of Levene's test for equality of variance (table 5.10) is not significant (0.094) where the *P* value is more than 0.05 at 5% level of significance. The *'t'* value is -0.836 and the corresponding *p* value is not significant i.e. 0.404 which more than 0.05 at 5% level of significance. It means that there is no significant difference between the students from two different districts with the availability of teaching equipments in the institutions.

### 5.5.2.4 Infrastructure facilities.

Table 5.8 reveals that majority of north and south students i.e. 50.0% and 58.8% respectively said infrastructure facility in the institutions is good whereas 27.4% and 21.6% commented to be excellent and very few students claimed it is poor. It means majority of the respondents from both districts are highly satisfied with the infrastructure facility provided by the institutions.

The *Mean* score between north and south respondents (table 5.9) is 2.99 and 2.97 respectively. This shows that north students have an edge over south respondents as far as infrastructure facilities are concerned. It is the north students who are more satisfied towards infrastructure facilities available in the institutes than south respondents.

The *F* ratio for Levene's test for equality of variance (table 5.10) is not significant (0.093) which is less than 0.05 at 5% level of significance. Hence we take the *'t'* value of equal variance not assumed. The *'t'* value 0.250 and its corresponding *p* value is 0.803 which is more than 0.05 at 5% level of significance It means that the attitude of students from north and south district is not significantly different with respect to infrastructure facilities available in the institutions.

**5.5.2.5 On-the job training/internship.**

Table 5.8 shows that 49.7% and 62.0% of the north and south district students respectively commented on facilities of on the job training and internship provided is good while 21.9% and 13.4% as excellent. It means that majority of the students from both the districts are satisfied with on-the job training and internship provided in the industries.

The *Mean* score between north and south respondents (table 5.9) is 1.24 and 1.20 respectively which shows that north district students are more satisfied than south students with respect to on-the job training and internship provided in the industries.

In case of the *'t'* test analyses, the *F* ratio for Levene's test for equality of variance (table 5.10) is not significant i.e. 0.110 (P>0.05). The *'t'* value for equality of means is 0.767 and its corresponding *p* value is 0.444 which is more than 0.05 at 5 % level of Significance. It means that there is a no much significant difference between students from two different districts with respect to on the job training/ internship.

**5.5.2.6 Latest tools and equipments.**

The table 5.8 shows that majority of the north and south students i.e. 48.0% and 45.6% said good whereby 24.3% and 30.6% said excellent respectively. It indicates that students of both districts are satisfied with the available facility of latest tools and equipments in the institutions.

The *mean* score between Male and Female respondents (table 5.9) is 3.79 and 3.93 respectively. This means that south students are more satisfied as compared to north students towards facilities available to use latest technology and equipments.

According to the *'t'* test analyses, the *F* ratio for Levene's test for equality of variance (table 5.10) is not significant (F=0.215, p=0.643) where *(p>0.05)*. The *'t'* value for equality of means is -1.408 and its corresponding *p* value is 0.160 which is more than 0.05 at 5 % level of Significance. It means that there is no significant difference between the attitude of north and south district students towards facilities available to use latest tools and equipments.

### 5.5.2.7 Trainers/Faculties of the course

Table 5.8 shows the overall attitude of north and south students for trainers/faculties appointed for the course i.e. 53.0 % and 59.1% of the students said excellent and good respectively. It means majority of the students from North are highly satisfied while students from south are satisfied with trainers/faculties teaching in the various institutions. But students of both the districts are satisfied.

The *Mean* score between Male and Female respondents (table 5.9) is 3.46 and 3.30 respectively. It means that north students are at the edge and are more satisfied than south students with trainers/faculties of the courses teaching in the institutions.

The Levene's test for equality of variance (table 5.10) is significant (0.002) where the $P<0.05$ at 5% level of significance. Therefore we take equal variance not assumed. The *'t'* value is 2.612 and its corresponding $p$ value is 0.009 which is significant. It means that there is a difference between the attitude of the students from two different districts with respect to teachers/faculties teaching in the institutions.

### 5.5.2.8 Instructors for internship/training

Table 5.8 shows the quality of an instructor for internship at training places where the majority of north and south district students i.e. 55.3% and 62.0% said good while 28.4% and 20.4% claimed instructors for internship is excellent respectively. It means that students from both the districts are satisfied with respect to instructors for internship.

The *Mean* score between north and south district students (table 5.9) is 2.94 and 3.01 respectively which indicates that students of south district are more satisfied towards instructors for internship than north students.

The *F* ratio for Levene's test of equality of variance (table 5.10) is significant (15.148) and the $p$ value is 0.000 which is less than 0.05 at 5 % level of significance. Therefore we take equal variance not assumed. The *'t'* value is -0.928 and its corresponding $p$ value is 0.354 which is more than 0.05. It indicates that there is no significant difference between the attitude of students from two different districts towards instructors for internship and at training places.

**5.5.2.9 Theory teaching in the class.**

The combined result of the student's attitude for theory teaching in the class (table 5.8) reveals that majority of north and south students i.e. 48.1% and 49.7% said good while 43.0% and 41.6% said excellent respectively to the theory teaching in the class and a very negligible number of students claimed to be poor. It means the attitude of the students is highly satisfied towards the theory taught in the class for different courses.

The *mean* score between the male and female students (table 5.9) is 3.33 and 3.31 respectively, which shows that between the north and south district students, north district students are slightly more satisfied with regards to theory taught in the class as compared to south district students.

In case of *'t'* test analyses, the *F* ratio for Levene's test for equality of variance (table 5.10) is not significant (0.162) and the *P* value is 0.688 which more than 0.05. The *'t'* value is 0.191 and its corresponding *p* value is 0.848 which is more than 0.05 at 5% level of significance. This means that there is no significant difference in the attitude of the students from two different districts towards theory taught in the class for the various trades.

**5.5.2.10 Practical training in the institutions**

It is observed that majority students (table 5.8) from north and south districts i.e. 61.8% and 57.7% claimed to be excellent while 32.0% and 33.6% said good with regards to practical training. It means majority of the students from north and south districts are highly satisfied with the practical training offered by the various institutions.

The **Mean** score between the north and south district students (table 5.9) is 3.54 and 3.47 respectively, which indicates that in-between the north and south district students, north district students are more satisfied than south district students towards practical training provided in the various institutions.

The *F* ratio for Levene's test for equality of variance (table 5.10) is not significant (1.254) and the *P* value is 0.263 which is more than 0.05 at 5% level of significance. In this case the *'t'* value is 1.082 and its corresponding *P* value is 0.280 which is higher than 0.05. This means that there is no significant difference between the attitude of the students of two different districts towards practical training provided by the institutions for various trades.

**5.5.2.11 Syllabus framed for the course**

Table 5.8 shows that majority of north and south district students i.e. 59.6% and 64.6% said as good while 19.9% and 24.5% claimed as excellent whereby very few students opined to be poor. It means majority of the respondents are satisfied towards syllabus framed for the course by the concern authority.

The *Mean* score between north and south district students (table 5.9) is 2.97 and 3.14 respectively. It means that south district students are at the more satisfied than north district students with respect to syllabus framed by the authority and taught in the institutions.

The Levene's test for equality of variance (table 5.10) is not significant (0.710) where the *P*>0.05 at 5% level of significance. The *'t'* value is -2.589 and its corresponding *p* value is 0.010 which is significant at 5% level of significance. It means that there exists a significant difference between the attitudes of north and south district students towards syllabus framed by the authority and taught in the institutions.

**5.5.2.12 Curriculum of the course**

Table 5.8 shows the appropriateness of the curriculum of the different courses. The majority of north and south district students i.e. 62.4% and 69.9% said good while 25.0% and 19.2% claimed excellent respectively. It means that majority of the students from two different districts are satisfied with respect to curriculum framed by the authority for the course.

The *Mean* score between north and south district students (table 5.9) is 3.11 and 3.08 respectively which means that north district students are slightly more satisfied with the curriculum followed by the institutions rather than south district students.

The *F* ratio for Levene's test of equality of variance (table 5.10) is significant (4.184) and the *p* value is 0.041 which is higher than 0.05 at 5 % level of significance. Therefore we assume equal variances not assumed for analysis. The *'t'* value is 0.455 and its corresponding *p* value is 0.649 which is more than 0.05. It indicates that there is no significant difference between the attitude of students from two different districts towards curriculum followed by the intuitions during academic years.

To sum up the attitude of ongoing students on the basis of district, the data was analyzed with the help of t-test for equality of means is no significant difference in case of 9 variables where (Sig. (2-tailed) *p* value is more than 0.05 at 5% level of significance and significantly different in case of only 3 attributes. The statements which are not significant are *Class rooms, Equipments of Teaching aids, Infrastructure facilities, On-the job training/ internship, Latest tools and equipments, Instructors for internship/training, Theory teaching in the class, Practical training in the institutions and Curriculum of the course.* A significant difference was noticed in the 3 variables in which the *p* value is less than 0.05 at 5% level of significance. The ***Mean*** score between North and South district ongoing students shows that there exists no significant difference in most of the attributes (9) except in case of 3 attributes a significant difference was found in between North and South district. The statements of significant difference *were library facilities, Trainers/faculties of the courses and Syllabus framed* for the course i.e. 2.43 and **2.70**, 3.46 and 3.30, 2.97 and **3.14** between north and south districts respectively. The students from North are more satisfied than the students from Soth district with most of the attribute tested. So, whether the students are from North or South district they are satisfied and shows no much difference between the two groups in their attitudes for most of the variables tested, **thus the null hypothesis is accepted.**

### 5.5.3 Taluka

The total population of students collected was 503 which is classified and organized according to the respective talukas. The students were further divided into 12 different talukas, they are from Pernem (92 student), Bardez (106 students), Tiswadi (94 students), Bicholim 10 students), Sattari (10 students), Ponda (40 students), Salcete (65 students), Quepem (6 students), Mormugao (61 students), Sanguem (12 students), Dharbandora (1 student) and Cancona (6 students). In order to find out the validity of the statements and the attitude of the students towards facilities available and curriculum framed, the data was arranged and tested with the help of statistical tools such *as Percentage, Mean and One way ANOVA.* Table **4.11** gives the Frequencies along with Percentages and Table **4.12** gives the One way ANOVA values which are shown below;

**H03: There is no significant difference in the attitude of On-going students from different Talukas towards facilities available and curriculum in the State of Goa.**

**Table 5.11: Table showing frequencies on attitude of ongoing students (Talukas)**

| Statements | Scale | Pernem | | Bardez | | Tiswadi | | Bicholim | | Sattari | | Ponda | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | N | % | N | % | N | % | N | % | N | % | N | % |
| Class rooms | Poor | 6 | 6.5% | 2 | 1.9% | 1 | 1.1% | 0 | 0.0% | 0 | 0.0% | 5 | 12.8% |
| | Satisfactory | 37 | 40.2% | 20 | 18.9% | 14 | 15.1% | 0 | 0.0% | 2 | 22.2% | 5 | 12.8% |
| | Good | 37 | 40.2% | 55 | 51.9% | 46 | 49.5% | 7 | 70.0% | 6 | 66.7% | 15 | 38.5% |
| | Excellent | 12 | 13.0% | 29 | 27.4% | 32 | 34.4% | 3 | 30.0% | 1 | 11.1% | 14 | 35.9% |
| Library facility | Poor | 35 | 38.9% | 16 | 15.8% | 22 | 24.4% | 5 | 50.0% | 6 | 60.0% | 8 | 20.5% |
| | Satisfactory | 26 | 28.9% | 29 | 28.7% | 16 | 17.8% | 2 | 20.0% | 2 | 20.0% | 7 | 17.9% |
| | Good | 20 | 22.2% | 32 | 31.7% | 28 | 31.1% | 3 | 30.0% | 2 | 20.0% | 12 | 30.8% |
| | Excellent | 9 | 10.0% | 24 | 23.8% | 24 | 26.7% | 0 | 0.0% | 0 | 0.0% | 12 | 30.8% |
| Equipments of teaching aids | Poor | 5 | 5.5% | 1 | 1.0% | 4 | 4.3% | 1 | 10.0% | 1 | 10.0% | 6 | 16.2% |
| | Satisfactory | 19 | 20.9% | 14 | 13.5% | 14 | 15.2% | 2 | 20.0% | 4 | 40.0% | 6 | 16.2% |
| | Good | 38 | 41.8% | 52 | 50.0% | 33 | 35.9% | 4 | 40.0% | 5 | 50.0% | 12 | 32.4% |
| | Excellent | 29 | 31.9% | 37 | 35.6% | 41 | 44.6% | 3 | 30.0% | 0 | 0.0% | 13 | 35.1% |
| Infrastructure facilities | Poor | 5 | 5.4% | 13 | 12.4% | 1 | 1.1% | 0 | 0.0% | 0 | 0.0% | 5 | 12.8% |
| | Satisfactory | 8 | 8.7% | 23 | 21.9% | 21 | 23.1% | 0 | 0.0% | 0 | 0.0% | 2 | 5.1% |
| | Good | 54 | 58.7% | 43 | 41.0% | 45 | 49.5% | 7 | 70.0% | 9 | 90.0% | 13 | 33.3% |
| | Excellent | 25 | 27.2% | 26 | 24.8% | 24 | 26.4% | 3 | 30.0% | 1 | 10.0% | 19 | 48.7% |
| On-the job training/ internship | Poor | 28 | 31.5% | 3 | 3.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 8 | 21.1% |
| | Satisfactory | 12 | 13.5% | 15 | 15.0% | 14 | 15.1% | 1 | 11.1% | 3 | 50.0% | 13 | 34.2% |
| | Good | 37 | 41.6% | 57 | 57.0% | 50 | 53.8% | 5 | 55.6% | 3 | 50.0% | 12 | 31.6% |
| | Excellent | 12 | 13.5% | 25 | 25.0% | 29 | 31.2% | 3 | 33.3% | 0 | 0.0% | 5 | 13.2% |
| Latest tools and equipments. | Poor | 17 | 18.5% | 16 | 15.5% | 3 | 3.2% | 1 | 10.0% | 4 | 40.0% | 6 | 15.4% |
| | Satisfactory | 7 | 7.6% | 10 | 9.7% | 25 | 26.9% | 1 | 10.0% | 1 | 10.0% | 7 | 17.9% |
| | Good | 49 | 53.3% | 38 | 36.9% | 49 | 52.7% | 3 | 30.0% | 5 | 50.0% | 20 | 51.3% |
| | Excellent | 19 | 20.7% | 39 | 37.9% | 16 | 17.2% | 5 | 50.0% | 0 | 0.0% | 6 | 15.4% |
| Trainers/ Faculties of the Course | Poor | 2 | 2.2% | 1 | 0.9% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 2 | 5.1% |
| | Satisfactory | 1 | 1.1% | 8 | 7.5% | 5 | 5.4% | 0 | 0.0% | 0 | 0.0% | 7 | 17.9% |
| | Good | 42 | 45.7% | 47 | 44.3% | 28 | 30.1% | 3 | 30.0% | 5 | 50.0% | 13 | 33.3% |
| | Excellent | 47 | 51.1% | 50 | 47.2% | 60 | 64.5% | 7 | 70.0% | 5 | 50.0% | 17 | 43.6% |
| Instructors for internship/training places | Poor | 28 | 31.5% | 2 | 2.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 8 | 21.1% |
| | Satisfactory | 7 | 7.9% | 12 | 12.0% | 8 | 8.6% | 0 | 0.0% | 3 | 50.0% | 4 | 10.5% |
| | Good | 41 | 46.1% | 58 | 58.0% | 45 | 48.4% | 5 | 55.6% | 3 | 50.0% | 14 | 36.8% |
| | Excellent | 13 | 14.6% | 28 | 28.0% | 40 | 43.0% | 4 | 44.4% | 0 | 0.0% | 12 | 31.6% |
| Theory teaching in the class | Poor | 1 | 1.1% | 0 | 0.0% | 2 | 2.2% | 0 | 0.0% | 0 | 0.0% | 3 | 7.7% |
| | Satisfactory | 5 | 5.5% | 10 | 9.4% | 3 | 3.3% | 0 | 0.0% | 0 | 0.0% | 5 | 12.8% |
| | Good | 46 | 50.5% | 44 | 41.5% | 42 | 45.7% | 8 | 80.0% | 9 | 90.0% | 21 | 53.8% |
| | Excellent | 39 | 42.9% | 52 | 49.1% | 45 | 48.9% | 2 | 20.0% | 1 | 10.0% | 10 | 25.6% |
| Practical training in the institutions | Poor | 3 | 3.3% | 2 | 1.9% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 2.6% |
| | Satisfactory | 5 | 5.4% | 4 | 3.8% | 6 | 6.5% | 0 | 0.0% | 0 | 0.0% | 1 | 2.6% |
| | Good | 24 | 26.1% | 32 | 30.2% | 28 | 30.1% | 6 | 60.0% | 6 | 60.0% | 17 | 43.6% |
| | Excellent | 60 | 65.2% | 68 | 64.2% | 59 | 63.4% | 4 | 40.0% | 4 | 40.0% | 20 | 51.3% |
| Syllabus framed for the course | Poor | 0 | 0.0% | 2 | 2.0% | 1 | 1.1% | 0 | 0.0% | 0 | 0.0% | 5 | 12.8% |
| | Satisfactory | 5 | 5.6% | 25 | 24.5% | 19 | 21.1% | 1 | 11.1% | 1 | 10.0% | 9 | 23.1% |
| | Good | 77 | 86.5% | 50 | 49.0% | 44 | 48.9% | 6 | 66.7% | 9 | 90.0% | 18 | 46.2% |
| | Excellent | 7 | 7.9% | 25 | 24.5% | 26 | 28.9% | 2 | 22.2% | 0 | 0.0% | 7 | 17.9% |
| Curriculum of the course | Poor | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 5 | 13.2% |
| | Satisfactory | 6 | 6.8% | 14 | 13.9% | 10 | 10.9% | 1 | 10.0% | 2 | 22.2% | 5 | 13.2% |
| | Good | 65 | 73.9% | 60 | 59.4% | 50 | 54.3% | 7 | 70.0% | 7 | 77.8% | 21 | 55.3% |
| | Excellent | 17 | 19.3% | 27 | 26.7% | 32 | 34.8% | 2 | 20.0% | 0 | 0.0% | 7 | 18.4% |

**Contd……**

| Statement | Scale | Salcete | | Quepem | | Mormugao | | Sanguem | | Dharbandora | | Canacona | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | N | % | N | % | | % | N | % | N | % | N | % | N | % |
| Class rooms | Poor | 1 | 1.5% | 0 | 0.0% | 1 | 1.6% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 16 | 3.2% |
| | Satisfactory | 12 | 18.5% | 2 | 33.3% | 8 | 13.1% | 1 | 8.3% | 0 | 0.0% | 1 | 16.7% | 102 | 20.4% |
| | Good | 27 | 41.5% | 3 | 50.0% | 43 | 70.5% | 9 | 75.0% | 1 | 100.0% | 4 | 66.7% | 253 | 50.6% |
| | Excellent | 25 | 38.5% | 1 | 16.7% | 9 | 14.8% | 2 | 16.7% | 0 | 0.0% | 1 | 16.7% | 129 | 25.8% |
| Library facility | Poor | 0 | 0.0% | 1 | 16.7% | 5 | 8.8% | 1 | 8.3% | 0 | 0.0% | 0 | 0.0% | 99 | 20.4% |
| | Satisfactory | 21 | 32.3% | 2 | 33.3% | 17 | 29.8% | 1 | 8.3% | 0 | 0.0% | 3 | 60.0% | 126 | 25.9% |
| | Good | 31 | 47.7% | 2 | 33.3% | 33 | 57.9% | 10 | 83.3% | 1 | 100.0% | 2 | 40.0% | 176 | 36.2% |
| | Excellent | 13 | 20.0% | 1 | 16.7% | 2 | 3.5% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 85 | 17.5% |
| Equipments of teaching aids | Poor | 0 | 0.0% | 0 | 0.0% | 1 | 2.3% | 1 | 8.3% | 0 | 0.0% | 0 | 0.0% | 20 | 4.2% |
| | Satisfactory | 9 | 13.6% | 1 | 16.7% | 7 | 15.9% | 1 | 8.3% | 0 | 0.0% | 2 | 33.3% | 79 | 16.5% |
| | Good | 36 | 54.5% | 4 | 66.7% | 16 | 36.4% | 10 | 83.3% | 1 | 100.0% | 3 | 50.0% | 214 | 44.7% |
| | Excellent | 21 | 31.8% | 1 | 16.7% | 20 | 45.5% | 0 | 0.0% | 0 | 0.0% | 1 | 16.7% | 166 | 34.7% |
| Infrastructure facilities | Poor | 2 | 3.1% | 0 | 0.0% | 5 | 8.2% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 31 | 6.2% |
| | Satisfactory | 13 | 20.0% | 2 | 33.3% | 6 | 9.8% | 0 | 0.0% | 1 | 100.0% | 1 | 16.7% | 77 | 15.5% |
| | Good | 30 | 46.2% | 3 | 50.0% | 42 | 68.9% | 12 | 100.0% | 0 | 0.0% | 4 | 66.7% | 262 | 52.6% |
| | Excellent | 20 | 30.8% | 1 | 16.7% | 8 | 13.1% | 0 | 0.0% | 0 | 0.0% | 1 | 16.7% | 128 | 25.7% |
| On-the job training/ internship | Poor | 1 | 1.6% | 0 | 0.0% | 1 | 1.7% | 3 | 27.3% | 1 | 100.0% | 0 | 0.0% | 45 | 9.4% |
| | Satisfactory | 11 | 18.0% | 4 | 66.7% | 6 | 10.0% | 5 | 45.5% | 0 | 0.0% | 2 | 33.3% | 86 | 17.9% |
| | Good | 40 | 65.6% | 1 | 16.7% | 44 | 73.3% | 3 | 27.3% | 0 | 0.0% | 4 | 66.7% | 256 | 53.3% |
| | Excellent | 9 | 14.8% | 1 | 16.7% | 9 | 15.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 93 | 19.4% |
| Latest tools and equipments | Poor | 4 | 6.2% | 1 | 16.7% | 5 | 8.2% | 1 | 9.1% | 0 | 0.0% | 1 | 16.7% | 59 | 11.9% |
| | Satisfactory | 15 | 23.1% | 0 | 0.0% | 4 | 6.6% | 0 | 0.0% | 0 | 0.0% | 3 | 50.0% | 73 | 14.7% |
| | Good | 29 | 44.6% | 4 | 66.7% | 26 | 42.6% | 9 | 81.8% | 1 | 100.0% | 2 | 33.3% | 235 | 47.3% |
| | Excellent | 17 | 26.2% | 1 | 16.7% | 26 | 42.6% | 1 | 9.1% | 0 | 0.0% | 0 | 0.0% | 130 | 26.2% |
| Trainers/ Faculties of the Course | Poor | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 5 | 1.0% |
| | Satisfactory | 8 | 12.1% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 29 | 5.8% |
| | Good | 33 | 50.0% | 4 | 66.7% | 38 | 62.3% | 10 | 83.3% | 1 | 100.0% | 4 | 66.7% | 228 | 45.4% |
| | Excellent | 25 | 37.9% | 2 | 33.3% | 23 | 37.7% | 2 | 16.7% | 0 | 0.0% | 2 | 33.3% | 240 | 47.8% |
| Instructors for internship/training places | Poor | 1 | 1.6% | 0 | 0.0% | 1 | 1.7% | 2 | 18.2% | 1 | 100.0% | 0 | 0.0% | 43 | 9.0% |
| | Satisfactory | 11 | 18.0% | 0 | 0.0% | 6 | 10.0% | 1 | 9.1% | 0 | 0.0% | 2 | 33.3% | 54 | 11.2% |
| | Good | 39 | 63.9% | 5 | 83.3% | 39 | 65.0% | 7 | 63.6% | 0 | 0.0% | 2 | 33.3% | 258 | 53.8% |
| | Excellent | 10 | 16.4% | 1 | 16.7% | 14 | 23.3% | 1 | 9.1% | 0 | 0.0% | 2 | 33.3% | 125 | 26.0% |
| Theory teaching in the class | Poor | 3 | 4.5% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 9 | 1.8% |
| | Satisfactory | 9 | 13.6% | 0 | 0.0% | 3 | 4.9% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 35 | 7.0% |
| | Good | 30 | 45.5% | 3 | 50.0% | 29 | 47.5% | 5 | 41.7% | 0 | 0.0% | 6 | 100.0% | 243 | 48.6% |
| | Excellent | 24 | 36.4% | 3 | 50.0% | 29 | 47.5% | 7 | 58.3% | 1 | 100.0% | 0 | 0.0% | 213 | 42.6% |
| Practical training in the institutions | Poor | 2 | 3.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 8 | 1.6% |
| | Satisfactory | 7 | 10.6% | 0 | 0.0% | 4 | 6.6% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 27 | 5.4% |
| | Good | 20 | 30.3% | 3 | 50.0% | 10 | 16.4% | 10 | 83.3% | 1 | 100.0% | 6 | 100.0% | 163 | 32.5% |
| | Excellent | 37 | 56.1% | 3 | 50.0% | 47 | 77.0% | 2 | 16.7% | 0 | 0.0% | 0 | 0.0% | 304 | 60.6% |
| Syllabus framed for the course | Poor | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 100.0% | 0 | 0.0% | 9 | 1.8% |
| | Satisfactory | 10 | 15.4% | 2 | 33.3% | 4 | 6.6% | 1 | 9.1% | 0 | 0.0% | 0 | 0.0% | 77 | 15.7% |
| | Good | 43 | 66.2% | 4 | 66.7% | 34 | 55.7% | 9 | 81.8% | 0 | 0.0% | 5 | 83.3% | 299 | 61.1% |
| | Excellent | 12 | 18.5% | 0 | 0.0% | 23 | 37.7% | 1 | 9.1% | 0 | 0.0% | 1 | 16.7% | 104 | 21.3% |
| Curriculum of the course | Poor | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 5 | 1.0% |
| | Satisfactory | 10 | 15.9% | 0 | 0.0% | 4 | 6.6% | 2 | 18.2% | 0 | 0.0% | 0 | 0.0% | 54 | 11.1% |
| | Good | 34 | 54.0% | 6 | 100.0% | 49 | 80.3% | 9 | 81.8% | 0 | 0.0% | 6 | 100.0% | 314 | 64.6% |
| | Excellent | 19 | 30.2% | 0 | 0.0% | 8 | 13.1% | 0 | 0.0% | 1 | 100.0% | 0 | 0.0% | 113 | 23.3% |

**Table 5.12: Table showing ANOVA-values on attitude of ongoing students (Talukas)**

| Statements | | Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| Class rooms | Between Groups | 20.544 | 11 | 1.868 | 3.310 | **.000** |
| | Within Groups | 275.384 | 488 | .564 | | |
| | Total | 295.928 | 499 | | | |
| Library facility | Between Groups | 46.416 | 11 | 4.220 | 4.514 | **.000** |
| | Within Groups | 443.065 | 474 | .935 | | |
| | Total | 489.481 | 485 | | | |
| Equipments of teaching aids | Between Groups | 14.343 | 11 | 1.304 | 1.966 | **.030** |
| | Within Groups | 310.438 | 468 | .663 | | |
| | Total | 324.781 | 479 | | | |
| Infrastructure facilities | Between Groups | 9.770 | 11 | .888 | 1.349 | .194 |
| | Within Groups | 320.029 | 486 | .658 | | |
| | Total | 329.799 | 497 | | | |
| On-the job training/ internship | Between Groups | 18.320 | 11 | 1.665 | 11.382 | **.000** |
| | Within Groups | 71.843 | 491 | .146 | | |
| | Total | 90.163 | 502 | | | |
| Latest tools and equipments. | Between Groups | 20.570 | 11 | 1.870 | 1.839 | **.045** |
| | Within Groups | 493.233 | 485 | 1.017 | | |
| | Total | 513.803 | 496 | | | |
| Trainers/ Faculties of the Course | Between Groups | 9.545 | 11 | .868 | 1.933 | **.033** |
| | Within Groups | 219.921 | 490 | .449 | | |
| | Total | 229.466 | 501 | | | |
| Instructors for internship/training places | Between Groups | 55.398 | 11 | 5.036 | 7.883 | **.000** |
| | Within Groups | 299.000 | 468 | .639 | | |
| | Total | 354.398 | 479 | | | |
| Theory teaching in the class | Between Groups | 11.905 | 11 | 1.082 | 2.387 | **.007** |
| | Within Groups | 221.253 | 488 | .453 | | |
| | Total | 233.158 | 499 | | | |
| Practical training in the institutions | Between Groups | 7.515 | 11 | .683 | 1.523 | .119 |
| | Within Groups | 219.786 | 490 | .449 | | |
| | Total | 227.301 | 501 | | | |
| Syllabus framed for the course | Between Groups | 14.751 | 11 | 1.341 | 3.165 | **000** |
| | Within Groups | 202.083 | 477 | .424 | | |
| | Total | 216.834 | 488 | | | |
| Curriculum of the course | Between Groups | 8.680 | 11 | .789 | 2.148 | **.016** |
| | Within Groups | 174.176 | 474 | .367 | | |
| | Total | 182.856 | 485 | | | |

### 5.5.3.1 Class rooms

The majority of ongoing students from different talukas (table 5.11) commented that class room are good i.e. Pernem (40.2%), Bardez (51.9%), Tiswadi (49.5%), Bicholim (70.0%), Sattari (66.7%), Ponda (38.5%), Salcete (41.5%), Quepem (50.0%), Mormugao (70.5%), Sanguem (75.0%), Dharbandora (100%) and Canacona (66.7%) whereas good number of students claimed to be excellent and negligible students said as poor. It means that most of the student's attitude from different talukas is satisfied with the class rooms facility provided by the institutions.

According to *ANOVA* table 5.12, the F value is 3.310 and the corresponding *p* value of significance is 0.000, which is less than 0.05 at 5% level of significance which means that there is a significant difference between the different talukas with reference to the condition of class rooms provided by the institutions. Thus overall result shows that students from different talukas are satisfied and highly satisfied with the prevailing condition of class rooms provided by the institutions for different courses.

### 5.5.3.2 Library facility

The majority of the ongoing students of different talukas (table 5.11) i.e. Pernem (38.9%), Bicholim (50.0%), Sattari (60.0%) and Canacona (60.0%) said to be poor, whereas Bardez (31.7%), Tiswadi (31.1%), Ponda (30.8%), Salcete (47.7%), Quepem (33.3%), Mormugao (57.9%), Sanguem (83.3%), Dharbandora (100%) said as excellent for the library facility. It means the students from different talukas are satisfied as well as unsatisfied with respect to the library facilities offered by the various institutions.

According to *ANOVA* table 5.12, the F value is 4.514 and the corresponding *p* value of significance is 0.000, which is less than 0.05 at 5% level of significance which means that there is a significant difference between the different talukas with regards to the attitude of students with the library facilities offered by the institutions. Therefore, we can say that the attitude of the students from different talukas towards library facilities provided by the institutions is significantly different.

### 5.5.3.3 Equipments of teaching aids.

Table 5.11 shows that majority of ongoing students from different talukas i.e. 41.8% of Pernem, 50.0% of Bardez, 40.0% of Bicholim, 50.0% of Sattari, 54.5% of Salcete, 66.7% of Quepem, 83.3% of Sanguem, 100% of Dharbandora and 50.0% of Canacona said good while 44.6% of Tiswadi and 45.5% of Mormugao claimed to be excellent towards facility of teaching equipments. It means that majority of the students from different talukas are fully satisfied with facilities of equipments of teaching aids available in the institutions and used for teaching in the class.

The *ANOVA* table 5.12 shows that the F value is 1.966 and the corresponding *p* value of significance is 0.030, which is less than 0.05 at 5% level of significance. It means that there is a significant difference between the students from different talukas with the availability of teaching equipments in the institutions. The result indicates that students are satisfied as well as highly satisfied.

### 5.5.3.4 Infrastructure facilities.

Table 5.11 reveals that majority of students from different talukas with respect to infrastructure facilities are good i.e. Pernem (58.7%), Bardez (41.0%), Tiswadi (49.5%), Bicholim (70.0%), Sattari (90.0%), Salcete (46.2%), Quepem (50.0%), Mormugao (68.9%), Sanguem (100.0%), and Canacona (66.7%) whereas students from Ponda (48.7%) and Dharbandora (100%) commented to be excellent and poor. It means

majority of the respondents from all different talukas are satisfied and highly satisfied except students from one taluka i.e. Dharbandora are dissatisfied.

According to *ANOVA* table 5.12, the *F* value is 1.349 and its corresponding value of significance is 0.194, which is higher than 0.05 at 5% level of significance, which means that the attitude of students from taluka wise is not significantly different with respect to infrastructure facilities available in the institutions.

### 5.5.3.5 On-the job training/internship.

Table 5.11 shows that of students from different talukas i.e. 41.6% of Pernem, 57.0% of Bardez, 53.8% of Tiswadi, 55.6% of Bicholim, 50.0% of Sattari, 65.6% of Salcete, 73.3% of Mormugao, and 66.7% of Canacona said good while 34.2% of Ponda, 66.7% of Quepem and 45.5% of Sanguem claimed to be satisfied whereas 100% of Dharbandora commented as poor for on-the job training and internship. It means that majority of the students of different talukas are satisfied except students of Dharbandora taluka are not satisfied with on-the job training and internship provided in the industries.

The *ANOVA* table 5.12 shows that the F value is 11.382 and the corresponding *p* value of significance is 0.000, which is lower than 0.05 at 5% level of significance. It means that there is a high significant difference between the students from different talukas with respect to on-the job training/ internship.

### 5.5.3.6 Latest tools and equipments.

The table 5.11 indicates that majority of students from different talukas with respect to latest tools and equipment is good i.e. Pernem (53.3%), Tiswadi (52.7%), Sattari (50.0%), Ponda (51.3%), Salcete (44.6%), Quepem (66.7%), Mormugao (42.6%), Sanguem (81.8.0%), and Dharbandora (100%) whereas students from Bardez (37.9%) and Bicholim (50.0%) said excellent while students from Canacona (50.0%) were satisfied. It shows that the attitude of students from various talukas is satisfied.

According to *ANOVA* table 5.12, the *F* value is 1.839 and its corresponding value of is 0.045, which is less than 0.05 at 5% level of significance. It means that there is a significant difference between the attitude of the students from different talukas towards facilities available to use latest tools and equipments. Students from canacona taluka are not impressed with the tools allowed to use during training in the institutions. It shows canancona taluka students are still deprived of using latest tools and equipments.

### 5.5.3.7 Trainers/Faculties of the course

Table 5.11 shows the overall attitude of students from different taluka towards trainers/faculties of the course i.e. 51.1% of Pernem, 47.2% of Bardez, 64.5% of Tiswadi, 70.0% of Bicholim, 50.0% of Sattari, 43.6% of Ponda, 50.0% of Salcete, 66.7% of Quepem, 62.3% of Mormugao, 83.3% of Sanguem, 100% 0f Dharbandora and 66.7% of Canacona said as good. It means attitude of most of the students from different talukas reveals that students are satisfied with trainers/faculties teaching in the various institutions.

The *ANOVA* table 5.12 shows that the F value is 1.933 and the corresponding *p* value of significance is 0.033, which is smaller than 0.05 at 5% level of significance. It means that there is a significant difference between the attitude of students from different talukas with respect to teachers/faculties teaching in the institutions.

### 5.5.3.8 Instructors for internship/training

Table 5.11 shows the attitude of most of the students from different talukas with respect to instructor for internship at training places is good i.e. Pernem (46.1%), Bardez (58.0%), Tiswadi (48.4%), Bicholim (55.6%), Sattari (50.0%), Ponda (36.8%), Salcete (63.9%), Quepem (83.3%), Mormugao (65.0%), Sanguem (63.6%), and Cancona (33.3) whereas students from Dharbandora (100%) claimed instructors for internship is poor. It means that students of different talukas are satisfied with respect to instructors for internship except Dharbandora students.

According to *ANOVA* table 5.12, the *F* value is 7.883 and the corresponding *p* value is 0.000, which is less than 0.05 at 5% level of significance. Thus it can be concluded that there is a significant difference between the group of students from different talukas with respect to instructors for internship and at training places.

### 5.5.3.9 Theory teaching in the class.

The attitude of the students from different talukas (table 5.11) towards theory teaching in the class said good i.e. Pernem (50.5%), Bardez (41.5%), Tiswadi (45.7%), Bicholim (80.0%), Sattari (90.0%), Ponda (53.8%), Salcete (45.5%), Quepem (50.0%), Mormugao (47.5%), and Canacona (100%) whereas students from Sanguem (58.3%) and Dharbandora (100%) said excellent. It means that the attitude of the students with respect to theory teaching of different talukas is satisfied.

The **ANOVA** table 5.12 shows that the F value is 2.378 and the corresponding *p* value of significance is 0.007, which is lower than 0.05 at 5% level of significance. It means that there is a significant difference in the attitude of the students from different talukas towards theory taught in the class for the various trades for different streams.

### 5.5.3.10 Practical training in the institutions

It is observed that majority students (table 5.11) from different talukas i.e. Pernem (65.2%), Bardez (64.2%), Tiswadi (63.4%), Salcete (56.1%), Quepem (50.0%), Mormugao (77.0%) calimed to be excellent whereas Bicholim (60.0%), Sattari (60.0%), Ponda (43.6%), Sanguem (83.3%), Dharbandora (100%)and Canacona (100%) said good with regards to practical training. It means majority of the students from different talukas are highly satisfied with the practical training provided by the institutions for different streams.

According to *ANOVA* table 5.12, the *F* value is 1.523 and the corresponding *p* value is 0.119, which is more than 0.05 at 5% level of significance. It is thus can be concluded that there is no significant difference between attitude of the students of different talukas with respect to practical training provided by the institutions.

### 5.5.3.11 Syllabus framed for the course

Table 5.11 shows that majority of the students from different talukas i.e. 86.5% of Pernem, 49.0% of Bardez, 48.9% of Tiswadi, 66.7% of Bicholim, 90.0% of Sattari, 46.2% of Ponda, 66.2% of Salcete, 66.7% of Quepem, 55.7% of Mormugao, 81.8% of Sanguem, and 83.3% of Canacona claimed as excellent whereby students from Dharbandora (100%) opined to be poor. It means majority of the respondents from different talukas are satisfied with respect to syllabus framed for the course by the concern authority.

According to *ANOVA* table 5.12, the *F* value is 3.165 and the corresponding *p* value is 0.000, which is less than 0.05 at 5% level of significance. Thus it can be concluded that there exists a significant difference between the attitude of the students towards syllabus framed by the concern authority.

### 5.5.3.12 Curriculum of the course

Table 5.11 shows whether curriculum for the different courses whereby majority of students i.e. 73.9% of Pernem, 59.4% of Bardez, 54.3% of Tiswadi, 70.0% of Bicholim, 77.8% of Sattari, 55.3% of Ponda, 54.0% of Salcete, 100% of Quepem, 80.3% of Mormugao, 81.8% of Sanguem, and 100% of Canacona claimed as good whereby students from Dharbandora (100%) as excellent. It means that majority of the students from different talukas are satisfied with regards to curriculum framed by the authority for the course.

According to *ANOVA* Table, the *F* value is 2.148 and the corresponding *p* value is 0.016, which is lower than 0.05 at 5% level of significance. It means that there is a significant difference between the attitude of students from different talukas towards curriculum followed by the various intuitions for the academic years.

To sum up the attitude of ongoing students on the basis of talukas, the data was analyzed with the help of **One way ANOVA** Table which shows that *p* value is less than 0.05 at 5% level of significance for most of the attributes tested above except in two variables i.e. *Infrastructure facilities and Practical training in the institutions.* These two statements shows there is no significant difference in attitude of the ongoing students from different taluka where the *P* value is more than 0.05 i.e. (0.194) and (0.119) respectively. It means that there exists a significant a difference between the attitude of ongoing students from different talukas with respect to most of the attributes tested above. The **mean** values of different talukas indicates that ongoing students are satisfied with most of the statement such as *classrooms in the institutes, library facility available in the institutions, teaching aids, facility available for 'on the job training', opportunity for using latest tools, faculty, instructors for internship, theory taught in the institutions, syllabus farmed by the concerned authority and overall curriculum framed by the authority.* So the attitude of most of the students from different talukas shows that there is difference between the groups for most of the variables tested as per one way ANOVA test and students have expressed satisfaction for the various statements checked above, **thus the null hypothesis is rejected.**

## 5.5.4 Stream

The collected data from ongoing students was analyzed on the basis of streams. The total 503 ongoing students were divided into 10 streams namely HS (45 students), HSSC (125 students), UNID (35 students), ITI (130 students), HRDFS (56 styudents), EDP (12 trainees), GHRSDC (21 trainees), TrCPC (21 trainees), APPRT (28 trainees) and OITSG (30 trainees). **Table 4.13** gives the **Frequencies** along with Percentages. **Table 4.14** gives the **One-way ANOVA** values.

**H04: There is no significant difference in attitude of On-going students from different streams towards facilities available and curriculum in the state of Goa.**
**Table 5.13: Table showing frequencies on attitude of ongoing students (Streams)**

| | | HS | | HSSC | | UNID | | ITI | | HRDFS | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | N | % | N | % | N | % | N | % | N | % |
| Class rooms | Poor | 1 | 2.2% | 5 | 4.0% | 0 | 0.0% | 4 | 3.1% | 0 | 0.0% |
| | Satisfactory | 20 | 44.4% | 18 | 14.4% | 18 | 51.4% | 13 | 10.1% | 10 | 17.9% |
| | Good | 20 | 44.4% | 65 | 52.0% | 17 | 48.6% | 84 | 65.1% | 19 | 33.9% |
| | Excellent | 4 | 8.9% | 37 | 29.6% | 0 | 0.0% | 28 | 21.7% | 27 | 48.2% |
| Library facility | Poor | 2 | 4.5% | 2 | 1.6% | 0 | 0.0% | 42 | 32.8% | 13 | 24.1% |
| | Satisfactory | 15 | 34.1% | 17 | 13.9% | 6 | 17.1% | 38 | 29.7% | 3 | 5.6% |
| | Good | 25 | 56.8% | 59 | 48.4% | 27 | 77.1% | 41 | 32.0% | 12 | 22.2% |
| | Excellent | 2 | 4.5% | 44 | 36.1% | 2 | 5.7% | 7 | 5.5% | 26 | 48.1% |
| Equipments of teaching aids | Poor | 1 | 3.4% | 2 | 1.6% | 0 | 0.0% | 1 | 0.8% | 0 | 0.0% |
| | Satisfactory | 6 | 20.7% | 18 | 14.8% | 9 | 25.7% | 18 | 14.1% | 5 | 9.1% |
| | Good | 2 | 6.9% | 49 | 40.2% | 25 | 71.4% | 66 | 51.6% | 19 | 34.5% |
| | Excellent | 20 | 69.0% | 53 | 43.4% | 1 | 2.9% | 43 | 33.6% | 31 | 56.4% |
| Infrastructure facilities | Poor | 5 | 11.1% | 9 | 7.3% | 1 | 2.9% | 9 | 7.0% | 1 | 1.8% |
| | Satisfactory | 0 | 0.0% | 23 | 18.7% | 19 | 54.3% | 18 | 14.0% | 3 | 5.4% |
| | Good | 23 | 51.1% | 47 | 38.2% | 14 | 40.0% | 86 | 66.7% | 24 | 42.9% |
| | Excellent | 17 | 37.8% | 44 | 35.8% | 1 | 2.9% | 16 | 12.4% | 28 | 50.0% |
| On the job training/ internship | Poor | 23 | 51.1% | 7 | 5.7% | 3 | 8.8% | 2 | 1.6% | 0 | 0.0% |
| | Satisfactory | 1 | 2.2% | 23 | 18.9% | 10 | 29.4% | 12 | 9.7% | 4 | 7.8% |
| | Good | 21 | 46.7% | 75 | 61.5% | 21 | 61.8% | 67 | 54.0% | 21 | 41.2% |
| | Excellent | 0 | 0.0% | 17 | 13.9% | 0 | 0.0% | 43 | 34.7% | 26 | 51.0% |
| Latest tools and equipments. | Poor | 5 | 11.1% | 19 | 15.6% | 4 | 11.4% | 12 | 9.4% | 0 | 0.0% |
| | Satisfactory | 0 | 0.0% | 10 | 8.2% | 9 | 25.7% | 17 | 13.3% | 6 | 10.7% |
| | Good | 35 | 77.8% | 63 | 51.6% | 16 | 45.7% | 47 | 36.7% | 32 | 57.1% |
| | Excellent | 5 | 11.1% | 30 | 24.6% | 6 | 17.1% | 52 | 40.6% | 18 | 32.1% |
| Trainers/ Faculties of the Course | Poor | 0 | 0.0% | 4 | 3.2% | 1 | 2.9% | 0 | 0.0% | 0 | 0.0% |
| | Satisfactory | 0 | 0.0% | 18 | 14.4% | 6 | 17.1% | 4 | 3.1% | 0 | 0.0% |
| | Good | 17 | 37.8% | 51 | 40.8% | 26 | 74.3% | 58 | 44.6% | 22 | 39.3% |
| | Excellent | 28 | 62.2% | 52 | 41.6% | 2 | 5.7% | 68 | 52.3% | 34 | 60.7% |
| Instructors for internship/training places | Poor | 23 | 51.1% | 5 | 4.1% | 3 | 8.8% | 2 | 1.6% | 0 | 0.0% |
| | Satisfactory | 1 | 2.2% | 11 | 9.0% | 10 | 29.4% | 8 | 6.5% | 1 | 2.0% |
| | Good | 21 | 46.7% | 81 | 66.4% | 21 | 61.8% | 71 | 57.3% | 17 | 33.3% |
| | Excellent | 0 | 0.0% | 25 | 20.5% | 0 | 0.0% | 43 | 34.7% | 33 | 64.7% |
| Theory teaching in the class | Poor | 0 | 0.0% | 4 | 3.2% | 2 | 5.7% | 1 | 0.8% | 1 | 1.8% |
| | Satisfactory | 0 | 0.0% | 8 | 6.5% | 13 | 37.1% | 5 | 3.9% | 0 | 0.0% |
| | Good | 19 | 42.2% | 55 | 44.4% | 20 | 57.1% | 42 | 32.6% | 20 | 35.7% |
| | Excellent | 26 | 57.8% | 57 | 46.0% | 0 | 0.0% | 81 | 62.8% | 35 | 62.5% |
| Practical training in the institutions | Poor | 0 | 0.0% | 4 | 3.2% | 3 | 8.6% | 1 | 0.8% | 0 | 0.0% |
| | Satisfactory | 1 | 2.2% | 8 | 6.4% | 13 | 37.1% | 3 | 2.3% | 0 | 0.0% |
| | Good | 4 | 8.9% | 39 | 31.2% | 17 | 48.6% | 29 | 22.3% | 9 | 16.1% |
| | Excellent | 40 | 88.9% | 74 | 59.2% | 2 | 5.7% | 97 | 74.6% | 47 | 83.9% |
| Syllabus framed for the course | Poor | 0 | 0.0% | 1 | 0.8% | 2 | 5.7% | 1 | 0.8% | 0 | 0.0% |
| | Satisfactory | 0 | 0.0% | 28 | 23.3% | 18 | 51.4% | 7 | 5.7% | 0 | 0.0% |
| | Good | 41 | 91.1% | 61 | 50.8% | 15 | 42.9% | 82 | 66.7% | 27 | 49.1% |
| | Excellent | 4 | 8.9% | 30 | 25.0% | 0 | 0.0% | 33 | 26.8% | 28 | 50.9% |
| Curriculum of the course | Poor | 0 | 0.0% | 1 | 0.8% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | Satisfactory | 0 | 0.0% | 16 | 13.2% | 15 | 42.9% | 9 | 7.6% | 1 | 1.8% |
| | Good | 43 | 95.6% | 74 | 61.2% | 20 | 57.1% | 68 | 57.1% | 22 | 39.3% |
| | Excellent | 2 | 4.4% | 30 | 24.8% | 0 | 0.0% | 42 | 35.3% | 33 | 58.9% |

**Contd……**

| Statement | Scale | EDP | | GHRSDC | | TrCPC | | APPRT | | OITSG | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | N | % | N | % | N | % | N | % | N | % | N | % |
| Class rooms | Poor | 0 | 0.0% | 0 | 0.0% | 5 | 23.8% | 0 | 0.0% | 1 | 3.4% | 16 | 3.2% |
| | Satisfactory | 0 | 0.0% | 3 | 14.3% | 2 | 9.5% | 16 | 59.3% | 2 | 6.9% | 102 | 20.4% |
| | Good | 2 | 16.7% | 11 | 52.4% | 10 | 47.6% | 8 | 29.6% | 17 | 58.6% | 253 | 50.6% |
| | Excellent | 10 | 83.3% | 7 | 33.3% | 4 | 19.0% | 3 | 11.1% | 9 | 31.0% | 129 | 25.8% |
| Library facility | Poor | 0 | 0.0% | 13 | 65.0% | 13 | 72.2% | 5 | 18.5% | 9 | 34.6% | 99 | 20.4% |
| | Satisfactory | 11 | 91.7% | 7 | 35.0% | 3 | 16.7% | 20 | 74.1% | 6 | 23.1% | 126 | 25.9% |
| | Good | 1 | 8.3% | 0 | 0.0% | 1 | 5.6% | 0 | 0.0% | 10 | 38.5% | 176 | 36.2% |
| | Excellent | 0 | 0.0% | 0 | 0.0% | 1 | 5.6% | 2 | 7.4% | 1 | 3.8% | 85 | 17.5% |
| Equipments of teaching aids | Poor | 0 | 0.0% | 7 | 33.3% | 8 | 38.1% | 1 | 3.7% | 0 | 0.0% | 20 | 4.2% |
| | Satisfactory | 0 | 0.0% | 9 | 42.9% | 2 | 9.5% | 9 | 33.3% | 3 | 10.3% | 79 | 16.5% |
| | Good | 11 | 91.7% | 3 | 14.3% | 6 | 28.6% | 15 | 55.6% | 18 | 62.1% | 214 | 44.7% |
| | Excellent | 1 | 8.3% | 2 | 9.5% | 5 | 23.8% | 2 | 7.4% | 8 | 27.6% | 166 | 34.7% |
| Infrastructure facilities | Poor | 0 | 0.0% | 1 | 4.8% | 5 | 23.8% | 0 | 0.0% | 0 | 0.0% | 31 | 6.2% |
| | Satisfactory | 0 | 0.0% | 3 | 14.3% | 4 | 19.0% | 6 | 23.1% | 1 | 3.3% | 77 | 15.5% |
| | Good | 2 | 16.7% | 13 | 61.9% | 11 | 52.4% | 20 | 76.9% | 22 | 73.3% | 262 | 52.6% |
| | Excellent | 10 | 83.3% | 4 | 19.0% | 1 | 4.8% | 0 | 0.0% | 7 | 23.3% | 128 | 25.7% |
| On the job training/ internship | Poor | 0 | 0.0% | 0 | 0.0% | 10 | 47.6% | 0 | 0.0% | 0 | 0.0% | 45 | 9.4% |
| | Satisfactory | 7 | 58.3% | 7 | 46.7% | 4 | 19.0% | 10 | 37.0% | 8 | 27.6% | 86 | 17.9% |
| | Good | 5 | 41.7% | 8 | 53.3% | 6 | 28.6% | 13 | 48.1% | 19 | 65.5% | 256 | 53.3% |
| | Excellent | 0 | 0.0% | 0 | 0.0% | 1 | 4.8% | 4 | 14.8% | 2 | 6.9% | 93 | 19.4% |
| Latest tools and equipments. | Poor | 0 | 0.0% | 11 | 52.4% | 8 | 38.1% | 0 | 0.0% | 0 | 0.0% | 59 | 11.9% |
| | Satisfactory | 8 | 72.7% | 6 | 28.6% | 9 | 42.9% | 3 | 10.7% | 5 | 16.7% | 73 | 14.7% |
| | Good | 3 | 27.3% | 4 | 19.0% | 4 | 19.0% | 19 | 67.9% | 12 | 40.0% | 235 | 47.3% |
| | Excellent | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 6 | 21.4% | 13 | 43.3% | 130 | 26.2% |
| Trainers/ Faculties of the Course | Poor | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 5 | 1.0% |
| | Satisfactory | 0 | 0.0% | 0 | 0.0% | 1 | 4.8% | 0 | 0.0% | 0 | 0.0% | 29 | 5.8% |
| | Good | 9 | 75.0% | 7 | 33.3% | 6 | 28.6% | 21 | 77.8% | 11 | 36.7% | 228 | 45.4% |
| | Excellent | 3 | 25.0% | 14 | 66.7% | 14 | 66.7% | 6 | 22.2% | 19 | 63.3% | 240 | 47.8% |
| Instructors for internship/training places | Poor | 0 | 0.0% | 0 | 0.0% | 10 | 47.6% | 0 | 0.0% | 0 | 0.0% | 43 | 9.0% |
| | Satisfactory | 7 | 58.3% | 2 | 13.3% | 2 | 9.5% | 7 | 25.9% | 5 | 17.2% | 54 | 11.2% |
| | Good | 4 | 33.3% | 6 | 40.0% | 7 | 33.3% | 16 | 59.3% | 14 | 48.3% | 258 | 53.8% |
| | Excellent | 1 | 8.3% | 7 | 46.7% | 2 | 9.5% | 4 | 14.8% | 10 | 34.5% | 125 | 26.0% |
| Theory teaching in the class | Poor | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 3.3% | 9 | 1.8% |
| | Satisfactory | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 7 | 25.9% | 2 | 6.7% | 35 | 7.0% |
| | Good | 10 | 83.3% | 20 | 95.2% | 20 | 95.2% | 17 | 63.0% | 20 | 66.7% | 243 | 48.6% |
| | Excellent | 2 | 16.7% | 1 | 4.8% | 1 | 4.8% | 3 | 11.1% | 7 | 23.3% | 213 | 42.6% |
| Practical training in the institutions | Poor | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 8 | 1.6% |
| | Satisfactory | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 2 | 6.7% | 27 | 5.4% |
| | Good | 9 | 75.0% | 16 | 76.2% | 10 | 47.6% | 14 | 51.9% | 16 | 53.3% | 163 | 32.5% |
| | Excellent | 3 | 25.0% | 5 | 23.8% | 11 | 52.4% | 13 | 48.1% | 12 | 40.0% | 304 | 60.6% |
| Syllabus framed for the course | Poor | 0 | 0.0% | 0 | 0.0% | 4 | 19.0% | 0 | 0.0% | 1 | 3.3% | 9 | 1.8% |
| | Satisfactory | 0 | 0.0% | 8 | 38.1% | 6 | 28.6% | 7 | 25.9% | 3 | 10.0% | 77 | 15.7% |
| | Good | 11 | 91.7% | 12 | 57.1% | 11 | 52.4% | 19 | 70.4% | 20 | 66.7% | 299 | 61.1% |
| | Excellent | 1 | 8.3% | 1 | 4.8% | 0 | 0.0% | 1 | 3.7% | 6 | 20.0% | 104 | 21.3% |
| Curriculum of the course | Poor | 0 | 0.0% | 0 | 0.0% | 4 | 19.0% | 0 | 0.0% | 0 | 0.0% | 5 | 1.0% |
| | Satisfactory | 0 | 0.0% | 3 | 14.3% | 3 | 14.3% | 3 | 11.5% | 4 | 13.3% | 54 | 11.1% |
| | Good | 11 | 91.7% | 17 | 81.0% | 13 | 61.9% | 22 | 84.6% | 24 | 80.0% | 314 | 64.6% |
| | Excellent | 1 | 8.3% | 1 | 4.8% | 1 | 4.8% | 1 | 3.8% | 2 | 6.7% | 113 | 23.3% |

**Table 5.14: Table showing ANOVA-values on attitude of ongoing students (Streams)**

| Statements | | Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| Class rooms | Between Groups | 42.660 | 9 | 4.740 | 9.171 | **.000** |
| | Within Groups | 253.268 | 490 | .517 | | |
| | Total | 295.928 | 499 | | | |
| Library facility | Between Groups | 154.597 | 9 | 17.177 | 24.416 | **.000** |
| | Within Groups | 334.884 | 476 | .704 | | |
| | Total | 489.481 | 485 | | | |
| Equipments of teaching aids | Between Groups | 58.237 | 9 | 6.471 | 11.410 | **.000** |
| | Within Groups | 266.544 | 470 | .567 | | |
| | Total | 324.781 | 479 | | | |
| Infrastructure facilities | Between Groups | 44.284 | 9 | 4.920 | 8.410 | **.000** |
| | Within Groups | 285.516 | 488 | .585 | | |
| | Total | 329.799 | 497 | | | |
| On the job training/ internship | Between Groups | 30.245 | 9 | 3.361 | 27.650 | **.000** |
| | Within Groups | 59.918 | 493 | .122 | | |
| | Total | 90.163 | 502 | | | |
| Latest tools and equipments. | Between Groups | 76.744 | 9 | 8.527 | 9.501 | **.000** |
| | Within Groups | 437.059 | 487 | .897 | | |
| | Total | 513.803 | 496 | | | |
| Trainers/ Faculties of the Course | Between Groups | 26.032 | 9 | 2.892 | 6.995 | **.000** |
| | Within Groups | 203.434 | 492 | .413 | | |
| | Total | 229.466 | 501 | | | |
| Instructors for internship/training places | Between Groups | 113.152 | 9 | 12.572 | 24.494 | **.000** |
| | Within Groups | 241.246 | 470 | .513 | | |
| | Total | 354.398 | 479 | | | |
| Theory teaching in the class | Between Groups | 49.389 | 9 | 5.488 | 14.632 | **.000** |
| | Within Groups | 183.769 | 490 | .375 | | |
| | Total | 233.158 | 499 | | | |
| Practical training in the institutions | Between Groups | 55.119 | 9 | 6.124 | 17.500 | **.000** |
| | Within Groups | 172.182 | 492 | .350 | | |
| | Total | 227.301 | 501 | | | |
| Syllabus framed for the course | Between Groups | 46.073 | 9 | 5.119 | 14.360 | **.000** |
| | Within Groups | 170.762 | 479 | .356 | | |
| | Total | 216.834 | 488 | | | |
| Curriculum of the course | Between Groups | 35.434 | 9 | 3.937 | 12.712 | **.000** |
| | Within Groups | 147.421 | 476 | .310 | | |
| | Total | 182.856 | 485 | | | |

## 5.5.4.1 Class rooms

The majority of ongoing students of different streams (table 5.13) commented that class rooms are good i.e. HS (44.4%), HSSC (52.0%), ITI (65.1%), GHRSDC (52.4%), TrCPC (47.6%), and OITSG (58.6%) whereas students from HRDFS (48.2%), EDP (83.3.5%), claimed to be excellent while students from UNID (51.4%) and ApprT (59.3%) claimed as satisfactory and very few students said as poor. It shows that attitude of most of the students from different streams are satisfied but students of HRDFS and EDP are highly satisfied whereas as students from two streams such as UNID and ApprT have low satisfaction with the condition of the class rooms provided by the institutions.

According to *ANOVA* table 5.14, the F value is 9.171 and the corresponding *p* value of significance is 0.000, which is less than 0.05 at 5% level of significance. It means that there is a significant difference between the different streams towards attitude of students and the facility of class rooms provided by the institutions. Thus overall result shows that there a difference in the attitude of the students from different streams whereby students

from most of the streams are satisfied whereas students of some streams are highly satisfied but students from some streams shows low satisfaction with the condition of class rooms provided by the institutions for different courses.

### 5.5.4.2 Library facility

The majority of the ongoing students of different streams (table 5.13) claimed as good i.e. HS (56.8%), HSSC (48.4%), UNID (77.1%) and OITSG (38.5%) whereas students of HRDFS (48.1%) said as excellent while students of EDP (91.7%), ApprT (74.1%), are satisfied and students of rest of streams i.e. ITI (32.8%), GHRSDC (65.0%), TrCPC (72.2%) said poor. It means students from 6 streams are satisfied while students of one stream are highly satisfied but students of 3 steams are unsatisfied with the library facilities offered by the various institutions.

According to *ANOVA* table 5.14, the F value is 24.416 and the corresponding *p* value of significance is 0.000, which is less than 0.05 at 5% level of significance which means that there is a significant difference between the different streams with respect to the attitude of students with the library facilities offered by the institutions. Therefore, we can say that the attitude of the students from different streams towards library facilities provided by the institutions is satisfied but there exist a significant difference between the various streams.

### 5.5.4.3 Equipments of teaching aids.

Table 5.13 shows that majority of ongoing students from different streams i.e. 69.0% of HS, 43.4% of HSSC and 56.4% of HRDFS claimed to be excellent whereas 71.4% of UNID, 51.6% of ITI, 55.6% of ApprT and 62.1% of OITSG said good while 66.7% of EDP, 42.9% of GHRSDC stated satisfactory and 38.1% of TrCPC as poor. It means that majority of the students of 6 different streams and 3 streams are satisfied and highly satisfied respectively whereas trainees of TrCPC are unsatisfied with the facilities of equipments of teaching aids provided by the institutions for teaching in the class.

The *ANOVA* table 5.14 shows that the F value is 11.410 and the corresponding *p* value of significance is 0.000, which is less than 0.05 at 5% level of significance. It means that there is a significant difference between the students from different streams and the availability of teaching equipments in the institutions. The overall result indicates that students from streams are satisfied while some are highly satisfied and only one stream students are unsatisfied.

### 5.5.4.4 Infrastructure facilities.

Table 5.13 reveals that majority of students from different streams with respect to infrastructure facilities is good i.e. HS (51.1%), HSSC (38.2%), UNID (40.0%), ITI (66.7%), GHRSDC (61.9%), TrCPC (52.4%), ApprT (76.9%), and OITSG (73.3%) whereas HRDFS (50.0%), EDP (83.3%) commented to be excellent. It means majority of the respondents from all different streams are satisfied as well as some are highly satisfied with the infrastructure facility provided by the institutions.

According to *ANOVA* table 5.14, the *F* value is 8.410 and its corresponding value of significance is 0.000, which is less than 0.05 at 5% level of significance, which means that the attitude of students from streams is significantly different towards infrastructure facilities available in the institutions.

### 5.5.4.5 On-the job training/internship.

Table 5.13 shows that attitude of the students from different streams i.e. 61.5% of HSSC, 61.8% of UNID, 54.0% of ITI, 53.3% of GHRSDC, 48.1% of ApprT and 65.5% of OITSG claimed as good whereas 51.0% of HRDFS as Excellent, 58.3% of EDP are satisfied while 51.1% of HS and 47.6% of TrCPC said poor with respect to on-the job training and internship. It means that majority of the students of different streams are satisfied except students from HS and TrCPC are unsatisfied with on-the job training and internship provided by the industries.

The *ANOVA* table 5.14 shows that the F value is 27.650 and the corresponding *p* value of significance is 0.000, which is less than 0.05 at 5% level of significance. It means that there is a high significant difference between the students from different streams with respect to on-the job training/ internship. It shows that HRDFS are highly satisfied while students of HS and TrCPC are dissatisfied.

### 5.5.4.6 Latest tools and equipments.

The table 5.13 indicates that majority of students from different streams with respect to latest tools and equipment is good i.e. HS (77.8%), HSSC (51.6%), UNID (45.7%), HRDFS (57.1%), ApprT (67.9%) whereas ITI (40.6%)  OITSG (43.3%) said excellent while students from EDP and TrCPC (72.7% and 42.9%) respectively were satisfied and GHRSDC (52.4%) claimed poor. It shows that the students from various streams are satisfied with the available facility of latest tools and equipments in the institutions s except student from GHRSDC stream.

According to *ANOVA* table 5.14, the *F* value is 9.501 and its corresponding value of is 0.000, which is less than 0.05 at 5% level of significance. It means that there is a significant difference between the attitude of the students from different streams with respect to facilities of latest tools and equipments available in the instituions. A difference is noticed within the different streams where the tudents of GHRSDC have shown dissatisfaction with the tools allowed to use during training in the institutions.

### 5.5.4.7 Trainers/Faculties of the course

Table 5.13 shows the overall attitude of most of the students from different streams with respect to trainers/faculties is excellent i.e. 62.2% of HS, 41.6% of HSSC, 52.3% of ITI, 60.7% of HRDFS, 66.7% of GHRSDC, 66.7% of TrCPC and 63.3% of OITSG while students from streams like 74.3% of UNID 75.0% of EDP and 77.8% of ApprT claimed as good. It means most of the students from different streams are satisfied towards trainers/faculties teaching in the various institutions.

The *ANOVA* table 5.14 shows that the F value is 6.995 and the corresponding *p* value of significance is 0.000, which is lower than 0.05 at 5% level of significance. It means that there is a significant difference between the attitude of students from different streams with respect to teachers/faculties teaching in the institutions. This shows that students from different streams are highly satisfied whereas students from UNID, EDP and ApprT are satisfied.

### 5.5.4.8 Instructors for internship/training

Table 5.13 shows the attitude of most of the students from different streams with respect to instructor for internship at training places shows good i.e. HS (46.7%), HSSC (66.4%), UNID (61.8%), ITI (57.3%), ApprT (59.3%), and OITSG (48.3%) while HRDFS (64.7%), GHRSDC (46.7%) claimed as excellent whereas EDP (58.3%) and TrCPC (47.6%) disclosed as satisfactory and poor respectively with respect to instructors for internship. It means that most of the students from different streams are satisfied and highly satisfied with respect to instructors for internship except trainees from TrCPC.

According to *ANOVA* table 5.14, the *F* value is 24.494 and the corresponding *p* value is 0.000, which is lower than 0.05 at 5% level of significance. Thus it can be concluded that there is a significant difference between the group of students from different streams. A major difference was found with the students from TrCPC stream where they are not satisfied with the instructor for internship/training.

### 5.5.4.9 Theory teaching in the class.

The attitude of the students from different streams (table 5.13) towards theory teaching in the class is good i.e. UNID (57.1%), EDP (83.3%), GHRSDC (95.2%), TrCPC (95.2%), ApprT (63.0%), and OITSG (66.7%) whereas students from HS (57.8%), HSSC (46.0%), ITI (62.8%) and HRDFS (62.5%) claimed to be excellent. It means that the attitude of the students with respect to theory teaching of different talukas is satisfied as well as highly satisfied.

The *ANOVA* table 5.14 shows that the F value is 14.632 and the corresponding *p* value of significance is 0.000 which is less than 0.05 at 5% level of significance. It means that there is a significant difference in the attitude of the students from different streams towards theory taught for the various trades in the instituions. A difference is noticed as students from some streams are satisfied whereas some highly satisfied.

### 5.5.4.10 Practical training in the institutions

It is observed that majority students (table 5.13) from different streams i.e. HS (88.9%), HSSC (59.2%), ITI (74.6%), HRDFS (83.9%), EDP (75.0%), GHRSDC (76.2%), ApprT (51.9%), and OITSG (53.3%) said good whereas students from streams like TrCPC (52.4%) and UNID (48.6%) claimed to be excellent and satisfactory respectively with regards to practical training. It means majority of the students from different streams are highly satisfied with the practical training provided by the institutions for different streams.

According to *ANOVA* table 5.14, the *F* value is 17.500 and the corresponding *p* value is 0.000 which is lower than 0.05 at 5% level of significance. It is can be concluded that there is a significant difference between attitude of the students of different streams with respect to practical training provided by the institutions.

### 5.5.4.11 Syllabus framed for the course

Table 5.13 shows that majority of the students from different streams i.e. 91.1% of HS, 50.8% of HSSC, 66.7% of ITI, 91.7% of EDP, 57.1% of GHRSDC, 52.4% of TrCPC, 70.4% of ApprT and 66.7% of OITSG claimed as excellent whereby students from HRDFS (50.9%) and UNID (51.4%) opined to be excellent and satisfactory. It shows that attitude of students from different streams are satisfied but students of HRDFS are highly satisfied with the syllabus framed for the course by the concern authority.

According to *ANOVA* table 5.14, the *F* value is 14.360 and the corresponding *p* value is 0.000, which is smaller than 0.05 at 5% level of significance. Thus it can be concluded that there exists a significant difference between the attitudes of the students towards syllabus framed by the concern authority. The difference is found with students of HRDFS who are highly satisfied while other streams are satisfied.

### 5.5.4.12 Curriculum of the course

Table 5.13 shows the student's attitude for curriculum whereby majority of the students i.e. 95.6% of HS, 61.2% of HSSC, 57.1% of UNID, 57.1% of ITI, 91.7% of EDP, 81.0% of GHRSDC, 61.9% of TrCPC, 84.6% of ApprT and 80.0% of OITSG opines as good while HRDFS (58.9%) said excellent. It means that majority of the students from different streams are satisfied with regards to curriculum framed by the authority for the course while students of HRDFS are highly satisfied.

According to *ANOVA* table 5.14, the *F* value is 12.712 and the corresponding *p* value is 0.000, which is less than 0.05 at 5% level of significance. It means that there is a significant difference between the attitude of students from different streams and the curriculum framed by the corcern authority. A positive difference was found among the different streams while students of HRDFS stream are more satisfied as compared to other streams.

To sum up the attitude of ongoing students on the basis of streams, the data was analyzed with the help of **One-way ANOVA** table shows that *p* value is less than 0.05 at 5% level of significance for all the attributes tested above. It means that there is a high significant difference in the attitude of ongoing students from different streams. It means that there exists significant difference with regards to all the attributes tested above. It reveals that ongoing students are satisfied but a difference is found with regards to *classrooms in the institutes, library facility available in the institutions, equipments of teaching aids used by faculty while teaching, infrastructure facilities, on-the job training, latest tools and equipments, trainers/faculties of the course, instructors for internship, theory teaching in the class, practical training in the institutions, syllabus farmed for the course and the overall curriculum of the course framed by the authority*. So the attitude of respondents from different streams shows that there exist difference between the groups the groups in their attitude towards facilities available in the institutions and curriculum for all the statements tested above under one way ANOVA test but there is positive attitude of the students, **thus the null hypothesis is rejected.**

## 5.5.5 Trades

The total population of students is 503, which is classified and organized according to their trades. The students were divided into 41 different trades. In order to analyze the statements for the attitude of the students towards facilities available and curriculum, the data was arranged accordingly. The **Frequencies** along with *percentages* are shown in table **5.15** *and the statistical tools such as One way ANOVA* is used to show ***ANOVA-values*** in table **5.16** which are given below;

**H05: There is no significant difference in the attitude of On-going students from different Trades towards facilities available and curriculum in the state of Goa.**

**Table 5.15: Table showing frequencies on attitude of ongoing students (Trades)**

| State-ments | | IT | HC | AM | CRM | OSS | AET | CGDM | ISR | AA | CT | MREEA | MCA | MFS | ELTR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Class rooms | P | 0 0.0% | 1 4.3% | 0 0.0% | 2 18.2% | 0 0.0% | 0 0.0% | 2 11.1% | 0 0.0% | 0 0.0% | 1 5.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% |
| | S | 0 0.0% | 18 78.3% | 2 40.0% | 1 9.1% | 0 0.0% | 0 0.0% | 9 50.0% | 1 8.3% | 4 40.0% | 1 5.0% | 2 10.0% | 13 54.2% | 5 45.5% | 1 12.5% |
| | G | 17 100% | 0 0.0% | 3 60.0% | 5 45.5% | 4 26.7% | 9 47.4% | 6 33.3% | 11 91.7% | 4 40.0% | 12 60.0% | 14 70.0% | 11 45.8% | 6 54.5% | 6 75.0% |
| | E | 0 0.0% | 4 17.4% | 0 0.0% | 3 27.3% | 11 73.3% | 10 52.6% | 1 5.6% | 0 0.0% | 2 20.0% | 6 30.0% | 4 20.0% | 0 0.0% | 0 0.0% | 1 12.5% |
| Library facility | P | 0 0.0% | 1 4.5% | 1 20.0% | 1 9.1% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 1 5.0% | 0 0.0% | 0 0.0% | 3 37.5% |
| | S | 0 0.0% | 12 54.5% | 3 60.0% | 0 0.0% | 2 13.3% | 3 16.7% | 11 64.7% | 0 0.0% | 0 0.0% | 1 5.0% | 0 0.0% | 5 20.8% | 1 9.1% | 2 25.0% |
| | G | 17 100% | 7 31.8% | 1 20.0% | 7 63.6% | 4 26.7% | 9 50.0% | 4 23.5% | 9 81.8% | 4 40.0% | 5 25.0% | 17 85.0% | 17 70.8% | 10 90.9% | 0 0.0% |
| | E | 0 0.0% | 2 9.1% | 0 0.0% | 3 27.3% | 9 60.0% | 6 33.3% | 2 11.8% | 2 18.2% | 6 60.0% | 14 70.0% | 2 10.0% | 2 8.3% | 0 0.0% | 3 37.5% |
| Teaching aids | P | 0 0.0% | 0 0.0% | 1 20.0% | 1 9.1% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 1 5.3% | 0 0.0% | 0 0.0% | 0 0.0% |
| | S | 0 0.0% | 2 8.7% | 4 80.0% | 4 36.4% | 1 7.1% | 0 0.0% | 1 5.9% | 6 50.0% | 0 0.0% | 3 15.0% | 3 15.8% | 6 25.0% | 3 27.3% | 0 0.0% |
| | G | 17 100% | 1 4.3% | 0 0.0% | 4 36.4% | 4 28.6% | 4 21.1% | 10 58.8% | 1 8.3% | 4 40.0% | 9 45.0% | 13 68.4% | 17 70.8% | 8 72.7% | 5 62.5% |
| | E | 0 0.0% | 20 87.0% | 0 0.0% | 2 18.2% | 9 64.3% | 15 78.9% | 6 35.3% | 5 41.7% | 6 60.0% | 8 40.0% | 2 10.5% | 1 4.2% | 0 0.0% | 3 37.5% |
| Infrastructure facilities | P | 0 0.0% | 0 0.0% | 5 100% | 3 27.3% | 0 0.0% | 0 0.0% | 6 33.3% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 1 4.2% | 0 0.0% | 0 0.0% |
| | S | 0 0.0% | 0 0.0% | 0 0.0% | 3 27.3% | 0 0.0% | 0 0.0% | 9 50.0% | 8 72.7% | 0 0.0% | 2 10.0% | 1 5.0% | 11 45.8% | 8 72.7% | 0 0.0% |
| | G | 17 100% | 6 26.1% | 0 0.0% | 3 27.3% | 2 13.3% | 9 50.0% | 2 11.1% | 2 18.2% | 8 80.0% | 7 35.0% | 14 70.0% | 11 45.8% | 3 27.3% | 8 100% |
| | E | 0 0.0% | 17 73.9% | 0 0.0% | 2 18.2% | 13 86.7% | 9 50.0% | 1 5.6% | 1 9.1% | 2 20.0% | 11 55.0% | 5 25.0% | 1 4.2% | 0 0.0% | 0 0.0% |
| On the job training / internship | P | 0 0.0% | 23 100% | 0 0.0% | 1 9.1% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 1 5.0% | 5 26.3% | 2 8.7% | 1 9.1% | 0 0.0% |
| | S | 0 0.0% | 0 0.0% | 1 20.0% | 2 18.2% | 5 33.3% | 1 5.6% | 1 5.9% | 5 41.7% | 0 0.0% | 0 0.0% | 9 47.4% | 9 39.1% | 1 9.1% | 0 0.0% |
| | G | 17 100% | 0 0.0% | 4 80.0% | 8 72.7% | 5 33.3% | 17 94.4% | 11 64.7% | 6 50.0% | 8 80.0% | 16 80.0% | 4 21.1% | 12 52.2% | 9 81.8% | 5 62.5% |
| | E | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 5 33.3% | 0 0.0% | 5 29.4% | 1 8.3% | 2 20.0% | 3 15.0% | 1 5.3% | 0 0.0% | 0 0.0% | 3 37.5% |
| Latest tools and equipments. | P | 0 0.0% | 0 0.0% | 5 100% | 8 72.7% | 1 6.7% | 0 0.0% | 8 50.0% | 0 0.0% | 0 0.0% | 0 0.0% | 2 10.5% | 4 16.7% | 0 0.0% | 5 62.5% |
| | S | 0 0.0% | 0 0.0% | 0 0.0% | 1 9.1% | 1 6.7% | 0 0.0% | 0 0.0% | 0 0.0% | 2 20.0% | 3 15.0% | 3 15.8% | 6 25.0% | 3 27.3% | 0 0.0% |
| | G | 17 100% | 18 78.3% | 0 0.0% | 2 18.2% | 10 66.7% | 5 26.3% | 6 37.5% | 12 100% | 8 80.0% | 9 45.0% | 11 57.9% | 9 37.5% | 7 63.6% | 3 37.5% |
| | E | 0 0.0% | 5 21.7% | 0 0.0% | 0 0.0% | 3 20.0% | 14 73.7% | 2 12.5% | 0 0.0% | 0 0.0% | 8 40.0% | 3 15.8% | 5 20.8% | 1 9.1% | 0 0.0% |

| Statements | | COPA | PLBR | WLDR | FTR | DM | HM | EM | CA | BA | DTPO | HN | ARM | BTCN | ED |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Trainers/ Faculties of the Course | P | 0 0.0% | 0 0.0% | 0 0.0% | 3 27.3% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 1 5.0% | 1 4.2% | 0 0.0% | 0 0.0% |
| | S | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 1 5.6% | 5 41.7% | 0 0.0% | 5 25.0% | 7 35.0% | 5 20.8% | 1 9.1% | 0 0.0% |
| | G | 17 100% | 0 0.0% | 0 0.0% | 6 54.5% | 3 20.0% | 4 21.1% | 10 55.6% | 3 25.0% | 4 40.0% | 9 45.0% | 12 60.0% | 16 66.7% | 10 90.9% | 3 37.5% |
| | E | 0 0.0% | 23 100% | 5 100% | 2 18.2% | 12 80.0% | 15 78.9% | 7 38.9% | 4 33.3% | 6 60.0% | 6 30.0% | 0 0.0% | 2 8.3% | 0 0.0% | 5 62.5% |
| Instructors for internship/ training places | P | 0 0.0% | 23 100% | 0 0.0% | 1 9.1% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 4 21.1% | 2 8.7% | 1 9.1% | 0 0.0% |
| | S | 0 0.0% | 0 0.0% | 1 20.0% | 1 9.1% | 0 0.0% | 1 5.6% | 1 5.9% | 5 41.7% | 0 0.0% | 1 5.0% | 2 10.5% | 9 39.1% | 1 9.1% | 0 0.0% |
| | G | 17 100% | 0 0.0% | 4 80.0% | 7 63.6% | 4 26.7% | 17 94.4% | 11 64.7% | 6 50.0% | 8 80.0% | 16 80.0% | 12 63.2% | 12 52.2% | 9 81.8% | 5 62.5% |
| | E | 0 0.0% | 0 0.0% | 0 0.0% | 2 18.2% | 11 73.3% | 0 0.0% | 5 29.4% | 1 8.3% | 2 20.0% | 3 15.0% | 1 5.3% | 0 0.0% | 0 0.0% | 3 37.5% |
| Theory teaching in the class | P | 0 0.0% | 0 0.0% | 0 0.0% | 1 9.1% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 1 5.0% | 2 10.0% | 2 8.3% | 0 0.0% | 0 0.0% |
| | S | 0 0.0% | 0 0.0% | 0 0.0% | 1 9.1% | 2 13.3% | 1 5.3% | 0 0.0% | 0 0.0% | 0 0.0% | 2 10.0% | 2 10.0% | 10 41.7% | 3 27.3% | 0 0.0% |
| | G | 17 100% | 0 0.0% | 2 40.0% | 4 36.4% | 4 26.7% | 5 57.9% | 5 27.8% | 11 100% | 2 20.0% | 10 50.0% | 8 40.0% | 12 50.0% | 8 72.7% | 4 50.0% |
| | E | 0 0.0% | 23 100% | 3 60.0% | 5 45.5% | 9 60.0% | 7 36.8% | 13 72.2% | 0 0.0% | 8 80.0% | 7 35.0% | 8 40.0% | 0 0.0% | 0 0.0% | 4 50.0% |
| Practical training in the institutions | P | 0 0.0% | 0 0.0% | 0 0.0% | 4 36.4% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 2 8.3% | 1 9.1% | 0 0.0% |
| | S | 0 0.0% | 0 0.0% | 1 20.0% | 3 27.3% | 0 0.0% | 0 0.0% | 0 0.0% | 5 41.7% | 0 0.0% | 0 0.0% | 0 0.0% | 5 20.8% | 8 72.7% | 1 12.5% |
| | G | 1 5.9% | 0 0.0% | 3 60.0% | 1 9.1% | 1 6.7% | 5 26.3% | 4 22.2% | 1 8.3% | 6 60.0% | 6 30.0% | 15 75.0% | 15 62.5% | 2 18.2% | 2 25.0% |
| | E | 16 94.1% | 23 100% | 1 20.0% | 3 27.3% | 14 93.3% | 14 73.7% | 14 77.8% | 6 50.0% | 4 40.0% | 14 70.0% | 5 25.0% | 2 8.3% | 0 0.0% | 5 62.5% |
| Syllabus framed for the course | P | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 1 5.3% | 2 8.3% | 0 0.0% | 0 0.0% |
| | S | 0 0.0% | 0 0.0% | 0 0.0% | 1 11.1% | 1 6.7% | 5 26.3% | 7 38.9% | 5 45.5% | 0 0.0% | 5 26.3% | 4 21.1% | 13 54.2% | 5 45.5% | 0 0.0% |
| | G | 17 100% | 23 100% | 1 20.0% | 5 55.6% | 11 73.3% | 8 42.1% | 7 38.9% | 3 27.3% | 8 80.0% | 7 36.8% | 12 63.2% | 9 37.5% | 6 54.5% | 6 85.7% |
| | E | 0 0.0% | 0 0.0% | 4 80.0% | 3 33.3% | 3 20.0% | 6 31.6% | 4 22.2% | 3 27.3% | 2 20.0% | 7 36.8% | 2 10.5% | 0 0.0% | 0 0.0% | 1 14.3% |
| Curriculum of the course | P | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 1 5.3% | 0 0.0% | 0 0.0% | 0 0.0% |
| | S | 0 0.0% | 0 0.0% | 0 0.0% | 4 36.4% | 0 0.0% | 1 5.6% | 2 11.8% | 5 41.7% | 0 0.0% | 1 5.0% | 3 15.8% | 11 45.8% | 4 36.4% | 0 0.0% |
| | G | 17 100% | 23 100% | 3 60.0% | 4 36.4% | 12 85.7% | 12 66.7% | 12 70.6% | 5 41.7% | 4 40.0% | 11 55.0% | 14 73.7% | 13 54.2% | 7 63.6% | 2 28.6% |
| | E | 0 0.0% | 0 0.0% | 2 40.0% | 3 27.3% | 2 14.3% | 5 27.8% | 3 17.6% | 2 16.7% | 6 60.0% | 8 40.0% | 1 5.3% | 0 0.0% | 0 0.0% | 5 71.4% |

**Contd……..**

| Statements | | COPA | PLBR | WLDR | FTR | DM | HM | EM | CA | BA | DTPO | HN | ARM | BTCN | ED |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Class rooms | P | 2 11.1% | 0 0.0% | 0 0.0% | 0 0.0% | 2 10.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% |
| | S | 2 11.1% | 0 0.0% | 0 0.0% | 4 18.2% | 6 30.0% | 0 0.0% | 0 0.0% | 1 10.0% | 2 20.0% | 0 0.0% | 0 0.0% | 7 77.8% | 0 0.0% | 0 0.0% |
| | G | 13 72.2% | 22 91.7% | 3 18.8% | 11 50.0% | 10 50.0% | 15 88.2% | 4 100% | 8 80.0% | 4 40.0% | 0 0.0% | 0 0.0% | 2 22.2% | 5 71.4% | 2 16.7% |
| | E | 1 5.6% | 2 8.3% | 13 81.2% | 7 31.8% | 2 10.0% | 2 11.8% | 0 0.0% | 1 10.0% | 4 40.0% | 10 100% | 10 100% | 0 0.0% | 2 28.6% | 10 83.3% |
| Library facility | P | 12 66.7% | 6 25.0% | 9 56.2% | 0 0.0% | 5 26.3% | 6 35.3% | 1 25.0% | 4 50.0% | 0 0.0% | 0 0.0% | 0 0.0% | 9 100% | 0 0.0% | 0 0.0% |
| | S | 4 22.2% | 7 29.2% | 4 25.0% | 4 18.2% | 7 36.8% | 7 41.2% | 3 75.0% | 1 12.5% | 2 20.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 11 91.7% |
| | G | 2 11.1% | 9 37.5% | 1 6.2% | 18 81.8% | 7 36.8% | 4 23.5% | 0 0.0% | 2 25.0% | 4 40.0% | 1 10.0% | 0 0.0% | 0 0.0% | 5 71.4% | 1 8.3% |
| | E | 0 0.0% | 2 8.3% | 2 12.5% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 1 12.5% | 4 40.0% | 9 90.0% | 10 100% | 0 0.0% | 2 28.6% | 0 0.0% |

| Category | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Teaching aids | P | 1 5.9% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% |
| | S | 7 41.2% | 3 12.5% | 0 0.0% | 3 13.0% | 3 15.0% | 1 6.2% | 1 25.0% | 4 44.4% | 1 10.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% |
| | G | 8 47.1% | 17 70.8% | 3 18.8% | 4 17.4% | 13 65.0% | 13 81.2% | 3 75.0% | 4 44.4% | 2 20.0% | 0 0.0% | 0 0.0% | 9 100% | 4 57.1% | 11 91.7% |
| | E | 1 5.9% | 4 16.7% | 13 81.2% | 16 69.6% | 4 20.0% | 2 12.5% | 0 0.0% | 1 11.1% | 7 70.0% | 10 100% | 10 100% | 0 0.0% | 3 42.9% | 1 8.3% |
| Infrastructure facilities | P | 5 27.8% | 1 4.2% | 0 0.0% | 0 0.0% | 3 15.0% | 0 0.0% | 0 0.0% | 1 10.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% |
| | S | 3 16.7% | 3 12.5% | 2 12.5% | 1 4.5% | 8 40.0% | 1 5.9% | 0 0.0% | 3 30.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% |
| | G | 10 55.6% | 17 70.8% | 2 12.5% | 21 95.5% | 8 40.0% | 16 94.1% | 4 100% | 6 60.0% | 5 50.0% | 0 0.0% | 0 0.0% | 9 100% | 4 57.1% | 2 16.7% |
| | E | 0 0.0% | 3 12.5% | 12 75.0% | 0 0.0% | 1 5.0% | 0 0.0% | 0 0.0% | 0 0.0% | 5 50.0% | 10 100% | 10 100% | 0 0.0% | 3 42.9% | 10 83.3% |
| On the job training / internship | P | 1 6.2% | 1 4.5% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% |
| | S | 5 31.2% | 3 13.6% | 0 0.0% | 1 4.8% | 2 10.0% | 0 0.0% | 1 25.0% | 1 10.0% | 2 20.0% | 1 10.0% | 0 0.0% | 0 0.0% | 0 0.0% | 7 58.3% |
| | G | 8 50.0% | 15 68.2% | 1 6.2% | 19 90.5% | 7 35.0% | 9 52.9% | 3 75.0% | 7 70.0% | 5 50.0% | 0 0.0% | 2 40.0% | 2 22.2% | 5 71.4% | 5 41.7% |
| | E | 2 12.5% | 3 13.6% | 15 93.8% | 1 4.8% | 11 55.0% | 8 47.1% | 0 0.0% | 2 20.0% | 3 30.0% | 9 90.0% | 3 60.0% | 7 77.8% | 2 28.6% | 0 0.0% |
| Latest tools and equipments. | P | 1 5.6% | 2 8.3% | 0 0.0% | 1 4.5% | 3 15.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% |
| | S | 2 11.1% | 4 16.7% | 0 0.0% | 2 9.1% | 4 20.0% | 4 25.0% | 1 25.0% | 3 30.0% | 3 30.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 8 72.7% |
| | G | 10 55.6% | 15 62.5% | 3 18.8% | 3 13.6% | 3 15.0% | 8 50.0% | 2 50.0% | 5 50.0% | 6 60.0% | 10 100% | 1 10.0% | 9 100% | 1 14.3% | 3 27.3% |
| | E | 5 27.8% | 3 12.5% | 13 81.2% | 16 72.7% | 10 50.0% | 4 25.0% | 1 25.0% | 2 20.0% | 1 10.0% | 0 0.0% | 9 90.0% | 0 0.0% | 6 85.7% | 0 0.0% |
| Trainers/ Faculties of the Course | P | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% |
| | S | 2 11.1% | 2 8.3% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% |
| | G | 7 38.9% | 12 50.0% | 4 25.0% | 15 65.2% | 12 60.0% | 3 17.6% | 2 50.0% | 2 20.0% | 4 40.0% | 0 0.0% | 1 10.0% | 9 100% | 6 85.7% | 9 75.0% |
| | E | 9 50.0% | 10 41.7% | 12 75.0% | 8 34.8% | 8 40.0% | 14 82.4% | 2 50.0% | 8 80.0% | 6 60.0% | 10 100% | 9 90.0% | 0 0.0% | 1 14.3% | 3 25.0% |
| Instructors for internship/training places | P | 1 6.2% | 1 4.5% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% |
| | S | 1 6.2% | 3 13.6% | 0 0.0% | 1 4.8% | 2 10.0% | 0 0.0% | 1 25.0% | 1 10.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 7 58.3% |
| | G | 11 68.8% | 15 68.2% | 2 12.5% | 19 90.5% | 7 35.0% | 9 52.9% | 3 75.0% | 7 70.0% | 2 20.0% | 1 10.0% | 0 0.0% | 2 22.2% | 5 71.4% | 4 33.3% |
| | E | 3 18.8% | 3 13.6% | 14 87.5% | 1 4.8% | 11 55.0% | 8 47.1% | 0 0.0% | 2 20.0% | 8 80.0% | 9 90.0% | 5 100% | 7 77.8% | 2 28.6% | 1 8.3% |
| Theory teaching in the class | P | 0 0.0% | 1 4.2% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 1 10.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% |
| | S | 3 17.6% | 0 0.0% | 0 0.0% | 1 4.3% | 0 0.0% | 0 0.0% | 1 25.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% |
| | G | 9 52.9% | 10 41.7% | 2 12.5% | 4 17.4% | 8 40.0% | 2 11.8% | 3 75.0% | 5 50.0% | 2 20.0% | 0 0.0% | 0 0.0% | 9 100% | 4 57.1% | 10 83.3% |
| | E | 5 29.4% | 13 54.2% | 14 87.5% | 18 78.3% | 12 60.0% | 15 88.2% | 0 0.0% | 4 40.0% | 8 80.0% | 10 100% | 10 100% | 0 0.0% | 3 42.9% | 2 16.7% |
| Practical training in the institutions | P | 1 5.6% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% |
| | S | 1 5.6% | 0 0.0% | 0 0.0% | 1 4.3% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% |
| | G | 6 33.3% | 8 33.3% | 2 12.5% | 3 13.0% | 6 30.0% | 0 0.0% | 2 50.0% | 3 30.0% | 4 40.0% | 0 0.0% | 0 0.0% | 2 22.2% | 0 0.0% | 9 75.0% |
| | E | 10 55.6% | 16 66.7% | 14 87.5% | 19 82.6% | 14 70.0% | 17 100.0% | 2 50.0% | 7 70.0% | 6 60.0% | 10 100% | 10 100% | 7 77.8% | 7 100% | 3 25.0% |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Syllabus framed for the course | P | 0<br>0.0% | 1<br>4.5% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% |
| | S | 0<br>0.0% | 3<br>13.6% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 4<br>25.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% |
| | G | 14<br>77.8% | 14<br>63.6% | 5<br>33.3% | 12<br>54.5% | 15<br>78.9% | 12<br>75.0% | 4<br>100% | 6<br>66.7% | 4<br>40.0% | 1<br>10.0% | 0<br>0.0% | 9<br>100% | 7<br>100% | 11<br>91.7% |
| | E | 4<br>22.2% | 4<br>18.2% | 10<br>66.7% | 10<br>45.5% | 4<br>21.1% | 0<br>0.0% | 0<br>0.0% | 3<br>33.3% | 6<br>60.0% | 9<br>90.0% | 10<br>100% | 0<br>0.0% | 0<br>0.0% | 1<br>8.3% |
| Curriculum of the course | P | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% |
| | S | 1<br>6.7% | 1<br>4.8% | 0<br>0.0% | 1<br>5.0% | 1<br>5.3% | 5<br>29.4% | 0<br>0.0% | 1<br>10.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% |
| | G | 9<br>60.0% | 12<br>57.1% | 7<br>43.8% | 12<br>60.0% | 12<br>63.2% | 10<br>58.8% | 4<br>100% | 9<br>90.0% | 3<br>30.0% | 1<br>10.0% | 0<br>0.0% | 9<br>100% | 0<br>0.0% | 11<br>91.7% |
| | E | 5<br>33.3% | 8<br>38.1% | 9<br>56.2% | 7<br>35.0% | 6<br>31.6% | 2<br>11.8% | 0<br>0.0% | 0<br>0.0% | 7<br>70.0% | 9<br>90.0% | 10<br>100% | 0<br>0.0% | 7<br>100% | 1<br>8.3% |

## Contd…….

| Statements | | SG | T&E | WLDR | FTR | DM | ELTR | LA | EM | PLBR | CNC | AGRIT | ST | T&FP | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Class rooms | P | 0<br>0.0% | 5<br>23.8% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 1<br>10.0% | 0<br>0.0% | 0<br>0.0% | 16<br>3.2% |
| | S | 3<br>14.3% | 2<br>9.5% | 1<br>33.3% | 3<br>75.0% | 1<br>33.3% | 3<br>50.0% | 2<br>100% | 3<br>100% | 1<br>50.0% | 2<br>50.0% | 0<br>0.0% | 2<br>22.2% | 0<br>0.0% | 102<br>20.4% |
| | G | 11<br>52.4% | 10<br>47.6% | 2<br>66.7% | 0<br>0.0% | 0<br>0.0% | 3<br>50.0% | 0<br>0.0% | 0<br>0.0% | 1<br>50.0% | 2<br>50.0% | 6<br>60.0% | 7<br>77.8% | 4<br>40.0% | 253<br>50.6% |
| | E | 7<br>33.3% | 4<br>19.0% | 0<br>0.0% | 1<br>25.0% | 2<br>66.7% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 3<br>30.0% | 0<br>0.0% | 6<br>60.0% | 129<br>25.8% |
| Library facility | P | 13<br>65.0% | 13<br>72.2% | 1<br>33.3% | 1<br>25.0% | 0<br>0.0% | 1<br>16.7% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 2<br>50.0% | 8<br>80.0% | 0<br>0.0% | 1<br>16.7% | 99<br>20.4% |
| | S | 7<br>35.0% | 3<br>16.7% | 2<br>66.7% | 3<br>75.0% | 1<br>33.3% | 5<br>83.3% | 2<br>100% | 3<br>100% | 2<br>100% | 2<br>50.0% | 0<br>0.0% | 4<br>40.0% | 2<br>33.3% | 126<br>25.9% |
| | G | 0<br>0.0% | 1<br>5.6% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 2<br>20.0% | 6<br>60.0% | 2<br>33.3% | 176<br>36.2% |
| | E | 0<br>0.0% | 1<br>5.6% | 0<br>0.0% | 0<br>0.0% | 2<br>66.7% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 1<br>16.7% | 85<br>17.5% |
| Teaching aids | P | 7<br>33.3% | 8<br>38.1% | 0<br>0.0% | 1<br>25.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 20<br>4.2% |
| | S | 9<br>42.9% | 2<br>9.5% | 0<br>0.0% | 3<br>75.0% | 0<br>0.0% | 2<br>33.3% | 0<br>0.0% | 0<br>0.0% | 2<br>100% | 2<br>50.0% | 1<br>10.0% | 2<br>20.0% | 0<br>0.0% | 79<br>16.5% |
| | G | 3<br>14.3% | 6<br>28.6% | 3<br>100% | 0<br>0.0% | 1<br>33.3% | 4<br>66.7% | 2<br>100% | 3<br>100% | 0<br>0.0% | 2<br>50.0% | 9<br>90.0% | 8<br>80.0% | 1<br>11.1% | 214<br>44.7% |
| | E | 2<br>9.5% | 5<br>23.8% | 0<br>0.0% | 0<br>0.0% | 2<br>66.7% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 8<br>88.9% | 166<br>34.7% |
| Infrastructure facilities | P | 1<br>4.8% | 5<br>23.8% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 31<br>6.2% |
| | S | 3<br>14.3% | 4<br>19.0% | 1<br>33.3% | 4<br>100.0% | 0<br>0.0% | 1<br>16.7% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 1<br>10.0% | 77<br>15.5% |
| | G | 13<br>61.9% | 11<br>52.4% | 2<br>66.7% | 0<br>0.0% | 2<br>100% | 5<br>83.3% | 2<br>100% | 3<br>100% | 2<br>100% | 4<br>100% | 8<br>80.0% | 10<br>100% | 4<br>40.0% | 262<br>52.6% |
| | E | 4<br>19.0% | 1<br>4.8% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 2<br>20.0% | 0<br>0.0% | 5<br>50.0% | 128<br>25.7% |
| On the job training/ internship | P | 0<br>0.0% | 10<br>47.6% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 45<br>9.4% |
| | S | 7<br>46.7% | 4<br>19.0% | 2<br>66.7% | 0<br>0.0% | 0<br>0.0% | 3<br>50.0% | 1<br>50.0% | 0<br>0.0% | 1<br>50.0% | 3<br>75.0% | 4<br>40.0% | 2<br>20.0% | 2<br>22.2% | 86<br>17.9% |
| | G | 8<br>53.3% | 6<br>28.6% | 1<br>33.3% | 1<br>25.0% | 2<br>66.7% | 3<br>50.0% | 1<br>50.0% | 3<br>100% | 1<br>50.0% | 1<br>25.0% | 5<br>50.0% | 8<br>80.0% | 6<br>66.7% | 256<br>53.3% |
| | E | 0<br>0.0% | 1<br>4.8% | 0<br>0.0% | 3<br>75.0% | 1<br>33.3% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 0<br>0.0% | 1<br>10.0% | 0<br>0.0% | 1<br>11.1% | 93<br>19.4% |

| Item | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Latest tools and equipments. | P | 11 52.4% | 8 38.1% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 59 11.9% |
| | S | 6 28.6% | 9 42.9% | 0 0.0% | 2 40.0% | 1 33.3% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 2 20.0% | 3 30.0% | 73 14.7% |
| | G | 4 19.0% | 4 19.0% | 3 100.0% | 3 60.0% | 1 33.3% | 4 66.7% | 1 50.0% | 3 100% | 1 50.0% | 3 75.0% | 2 20.0% | 8 80.0% | 2 20.0% | 235 47.3% |
| | E | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 1 33.3% | 2 33.3% | 1 50.0% | 0 0.0% | 1 50.0% | 1 25.0% | 8 80.0% | 0 0.0% | 5 50.0% | 130 26.2% |
| Trainers/ Faculties of the Course | P | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 5 1.0% |
| | S | 0 0.0% | 1 4.8% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 29 5.8% |
| | G | 7 33.3% | 6 28.6% | 3 100% | 2 50.0% | 1 33.3% | 4 66.7% | 2 100% | 3 100% | 2 100% | 4 100% | 1 10.0% | 10 100% | 0 0.0% | 228 45.4% |
| | E | 14 66.7% | 14 66.7% | 0 0.0% | 2 50.0% | 2 66.7% | 2 33.3% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 9 90.0% | 0 0.0% | 10 100% | 240 47.8% |
| Instructors for internship/training places | P | 0 0.0% | 10 47.6% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 43 9.0% |
| | S | 2 13.3% | 2 9.5% | 0 0.0% | 0 0.0% | 0 0.0% | 2 33.3% | 1 50.0% | 0 0.0% | 1 50.0% | 3 75.0% | 0 0.0% | 3 30.0% | 2 22.2% | 54 11.2% |
| | G | 6 40.0% | 7 33.3% | 3 100.0% | 1 25.0% | 2 66.7% | 4 66.7% | 1 50.0% | 3 100.0% | 1 50.0% | 1 25.0% | 7 70.0% | 7 70.0% | 0 0.0% | 258 53.8% |
| | E | 7 46.7% | 2 9.5% | 0 0.0% | 3 75.0% | 1 33.3% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 3 30.0% | 0 0.0% | 7 77.8% | 125 26.0% |
| Theory teaching in the class | P | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 1 10.0% | 0 0.0% | 0 0.0% | 9 1.8% |
| | S | 0 0.0% | 0 0.0% | 0 0.0% | 1 25.0% | 0 0.0% | 2 33.3% | 0 0.0% | 2 66.7% | 0 0.0% | 2 50.0% | 0 0.0% | 2 20.0% | 0 0.0% | 35 7.0% |
| | G | 20 95.2% | 20 95.2% | 3 100% | 2 50.0% | 1 33.3% | 4 66.7% | 2 100% | 1 33.3% | 2 100% | 2 50.0% | 9 90.0% | 8 80.0% | 3 30.0% | 243 48.6% |
| | E | 1 4.8% | 1 4.8% | 0 0.0% | 1 25.0% | 2 66.7% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 7 70.0% | 213 42.6% |
| Practical training in the institutions | P | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 8 1.6% |
| | S | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 1 10.0% | 1 10.0% | 27 5.4% |
| | G | 16 76.2% | 10 47.6% | 3 100% | 0 0.0% | 2 66.7% | 4 66.7% | 2 100% | 2 66.7% | 1 50.0% | 0 0.0% | 6 60.0% | 9 90.0% | 1 10.0% | 163 32.5% |
| | E | 5 23.8% | 11 52.4% | 0 0.0% | 4 100% | 1 33.3% | 2 33.3% | 0 0.0% | 1 33.3% | 1 50.0% | 4 100% | 4 40.0% | 0 0.0% | 8 80.0% | 304 60.6% |
| Syllabus framed for the course | P | 0 0.0% | 4 19.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 1 10.0% | 0 0.0% | 0 0.0% | 9 1.8% |
| | S | 8 38.1% | 6 28.6% | 1 33.3% | 2 50.0% | 0 0.0% | 1 16.7% | 0 0.0% | 2 66.7% | 0 0.0% | 1 25.0% | 0 0.0% | 2 20.0% | 1 10.0% | 77 15.7% |
| | G | 12 57.1% | 11 52.4% | 2 66.7% | 2 50.0% | 2 66.7% | 5 83.3% | 2 100% | 1 33.3% | 2 100% | 3 75.0% | 9 90.0% | 8 80.0% | 3 30.0% | 299 61.1% |
| | E | 1 4.8% | 0 0.0% | 0 0.0% | 0 0.0% | 1 33.3% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 6 60.0% | 104 21.3% |
| Curriculum of the course | P | 0 0.0% | 4 19.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 5 1.0% |
| | S | 3 14.3% | 3 14.3% | 1 33.3% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 1 33.3% | 0 0.0% | 1 25.0% | 0 0.0% | 3 30.0% | 1 10.0% | 54 11.1% |
| | G | 17 81.0% | 13 61.9% | 2 66.7% | 4 100% | 2 100.0% | 5 83.3% | 2 100% | 2 66.7% | 2 100% | 3 75.0% | 9 90.0% | 7 70.0% | 8 80.0% | 314 64.6% |
| | E | 1 4.8% | 1 4.8% | 0 0.0% | 0 0.0% | 0 0.0% | 1 16.7% | 0 0.0% | 0 0.0% | 0 0.0% | 0 0.0% | 1 10.0% | 0 0.0% | 1 10.0% | 113 23.3% |

**Table 5.16: Table showing ANOVA-values on attitude of ongoing students (Trades)**

| Statements | | Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| Class rooms | Between Groups | 113.243 | 40 | 2.831 | 7.113 | **.000** |
| | Within Groups | 182.685 | 459 | .398 | | |
| | Total | 295.928 | 499 | | | |
| Library facility | Between Groups | 278.420 | 40 | 6.961 | 14.675 | **.000** |
| | Within Groups | 211.061 | 445 | .474 | | |
| | Total | 489.481 | 485 | | | |
| Equipments of teaching aids | Between Groups | 137.335 | 40 | 3.433 | 8.041 | **.000** |
| | Within Groups | 187.446 | 439 | .427 | | |
| | Total | 324.781 | 479 | | | |
| Infrastructure facilities | Between Groups | 170.839 | 40 | 4.271 | 12.279 | **.000** |
| | Within Groups | 158.960 | 457 | .348 | | |
| | Total | 329.799 | 497 | | | |
| On the job training/ internship | Between Groups | 57.382 | 40 | 1.435 | 20.217 | **.000** |
| | Within Groups | 32.781 | 462 | .071 | | |
| | Total | 90.163 | 502 | | | |
| Latest tools and equipments. | Between Groups | 230.278 | 40 | 5.757 | 9.259 | **.000** |
| | Within Groups | 283.524 | 456 | .622 | | |
| | Total | 513.803 | 496 | | | |
| Trainers/ Faculties of the Courses | Between Groups | 85.334 | 40 | 2.133 | 6.823 | **.000** |
| | Within Groups | 144.132 | 461 | .313 | | |
| | Total | 229.466 | 501 | | | |
| Instructors for internship/training places | Between Groups | 201.144 | 40 | 5.029 | 14.405 | **.000** |
| | Within Groups | 153.254 | 439 | .349 | | |
| | Total | 354.398 | 479 | | | |
| Theory teaching in the class | Between Groups | 96.232 | 40 | 2.406 | 8.065 | **.000** |
| | Within Groups | 136.926 | 459 | .298 | | |
| | Total | 233.158 | 499 | | | |
| Practical training in the institutions | Between Groups | 100.925 | 40 | 2.523 | 9.204 | **.000** |
| | Within Groups | 126.376 | 461 | .274 | | |
| | Total | 227.301 | 501 | | | |
| Syllabus framed for the course | Between Groups | 75.727 | 40 | 1.893 | 6.011 | **.000** |
| | Within Groups | 141.108 | 448 | .315 | | |
| | Total | 216.834 | 488 | | | |
| Curriculum of the course | Between Groups | 64.058 | 40 | 1.601 | 5.999 | **.000** |
| | Within Groups | 118.798 | 445 | .267 | | |
| | Total | 182.856 | 485 | | | |

### 5.5.5.1 Class rooms

The majority of ongoing students of different streams (table 5.15) commented that class rooms are good i.e. IT (100%), AM (60.0%), CRM (45.5%), ISR (91.7%), AA (40.0%), CT (60.0% ), MREEA (70.0%), MFS (54.5%), ELTR (75.0%), COPA (72.2%), PLBR (91.7%), FTR (50.0%), DM (50.0%), HM (88.2%), EM (100%), CA (80.0%), BA (40.0%), BTCN (71.4%), SG (52.4%), T&E (47.6%), WLDR (66.7%), ELTR (50.0%), PLBR (50.0% ), CNC (50.0%), AGRIT (60.0%) and ST (77.8%) whereas students of trades like OSS (73.3%), AET (52.6%), WLDR (81.2%), DTPO (100%), HN (100%), ED (83.3%), DM (66.7%) and T&FP (60.0%) claimed to be excellent while students from HC (78.3%), CGDM (50.0%), MCA (54.2%), ARM (77.8%), FTR (75.0%), LA (100%) and EM (100.0%) claimed as satisfactory. It means that attitude of most of the students (out of 41 trades 26 trades) is satisfactory while students of 8 trades are highly satisfactory and less students were satisfactory (7 trades) and students of few streams were dissatisfied towards the class rooms provided by the institutions. It indicates that majority of the students from different trades are satisfied as well as highly satisfied.

According to *ANOVA* table 5.16, the F value is 7.113 and the corresponding *p* value of significance is 0.000, which is less than 0.05 at 5% level of significance. It means that there is a significant difference between the attitude of students from different trades towards facility of class rooms provided by the institutions. It also indicates that students from most of the trades are satisfied whereas students of some trades are highly satisfied but students from some streams shows low satisfaction with the condition of class rooms provided by the institutions for the different courses.

### 5.5.5.2 Library facility

The majority of the ongoing students of different streams (table 5.15) claimed as good i.e. IT (100%), CRM (63.6%), AET (50.0%), ISR (81.8%), MREEA (85.0%), MCA (70.8%), MFS (90.9%), PLBR (37.5%), FTR (81.8%), DM (36.8%), BTCN (71.4%), ST (60.0%), T&FP (33.2%), whereas OSS (60.0%), AA (60.0%), CT (70.0%), ELTR (37.5%), BA (40.0%) DTPO (90.0%), HN (100%) and DM (66.7%) said excellent while students from trades like HC (54.5%), AM (60.0%), CGDM (64.7%), HM (41.2%), EM (75.0%), ED (91.7%), WLDR (66.7%), FTR (75.0%), ELTR (83.3%), LA (100%), EM (100%), PLBR (100%), CNC (50.0%) and are rarely satisfied. The students of COPA (66.7%), WLDR (56.2%), CA (50.0%), ARM (100%), SG (65.0%), T&E (72.2%), and AGRIT (80.0) expressed library facility as poor. It means that the most of the students i.e. out of the total 41 trades, 13 and 8 trades are satisfied and highly satisfied respectively while students of 13 trades are less satisfied. The students of 7 trades are unsatisfied and students of 2 trades (ELTR and CNC) are satisfied as well as unsatisfied equally with the library facilities offered by the various institutions.

According to *ANOVA* table 5.16, the F value is 14.675 and the corresponding *p* value of significance is 0.000, which is less than 0.05 at 5% level of significance which means that there is a significant difference between the different streams with respect to the attitude of students with the library facilities offered by the institutions. Therefore, we can say that the attitude of the students from different trades towards library facilities provided by the institutions is satisfied except few trades.

### 5.5.5.3 Equipments of teaching aids.

Table 5.15 shows that majority of ongoing students from different trades i.e. 100% of IT, 63.6% of CRM, 58.8% of CGDM, 45.0% of CT, 68.4% of MREEA, 70.8% of MCA, 72.7% of MFS, 62.5% of ELTR, 47.1% of COPA, 70.8% of PLBR, 65.0% of DM, 81.2% of HM, 75.0% of EM, 44.4% of CA, 100% of ARM, 57.1% of BTCN, 91.7% of ED, 100% of WLDR, 66.7% of ELTR, 100% of LA, 100% of EM, 50.0% of CNC, 90.0% of AGRIT, 80.0% of ST claimed as good whereas 87.0% of HC, 64.3% of OSS, 78.9% of AET, 60.0% of AA, 81.2% of WLDR, 69.6% of FTR, 70.0% of BA, 100% of DTPO, 100% of HN, 66.7% of DM and 88.9% of T&FP expressed as excellent while students of trades such as 80.0% of AM, 50.0% of ISR, 42.9% of SG, 75.0% of FTR and 100% of PLBR are satisfied and majority of only one stream i.e. T&E (38.1%) claimed as poor with respect to facility of teaching equipments in the institutions.. It means that majority of the students (out of 41 trades), students of 24 different trades are satisfied and 11 trades are highly satisfied while students of 5 trades are moderately satisfied whereas trainees of T&E are unsatisfied with the equipment facilities of teaching aids provided by the institutions.

The *ANOVA* table 5.16 shows that the F value is 8.041 and the corresponding *p* value of significance is 0.000, which is less than 0.05 at 5% level of significance. It means that there is a significant difference between the students from different streams and the availability of teaching equipments in the institutions. The overall result indicates that students from different trades are satisfied while some are highly satisfied and students of only 1 trade are dissatisfied.

### 5.5.5.4 Infrastructure facilities.

Table 5.15 reveals that majority of students from different trades towards infrastructure facilities claimed as good i.e. IT (100%), AA (80.0%), MREEA (70.0%), MCA (45.8%), ELTR (100%), COPA (55.6%), PLBR (70.8%), FTR (95.5%), DM (40.0%), HM (94.1%), EM (100%), CA (60.0%), ARM (100%), BTCN (57.1%), SG (61.9%), T&E (52.4%), WLDR (66.7%), DM (100%), ELTR (83.3%), LA (100%), EM (100%), PLBR (100%), CNC (100%), AGRI (80.0%), ST (100%) and T&FP (40.0%) whereas student of trades like HC (73.9%), OSS (86.7%), AET (50.0%), CT (55.0%), WLDR (75.0%), BA (50.0%), DTPO (100%), HN (100%) and ED (83.3%) commented to be excellent. The students claimed to be satisfactory are CGDM (50.0%), ISR (72.7%), MFS (72.7%), and FTR (100%) whereby only students of AM (100%) and CRM (27.3%)

said it is poor. It means majority of the respondents from most of the trades (out of 41, 30 and 9 respectively) are satisfied and highly satisfied whereas students of 2 trades (AM and CRM) are dissatisfied with the infrastructure facility provided by the institutions.

According to *ANOVA* table 5.16, the *F* value is 12.279 and its corresponding value of significance is 0.000, which is less than 0.05 at 5% level of significance, which means that the attitude of students from different trades is significantly different towards infrastructure facilities available in the institutions. Most of the students from different trades are satisfied while some are highly satisfied except students of 2 trades (AM and CRM) are dissatisfied.

### 5.5.5.5 On-the job training/internship.

The table 5.15 indicates that majority of students from different trades with respect to on-the job training/internship is good i.e. IT (100%), AM (80.0%), CRM (72.7%), OSS (33.3%), AET (94.4%), CGDM (64.7%), ISR (50.0%), AA (80.0%), CT (80.0%), MCA (52.2%), MFS (81.8%), ELTR (62.5%), COPA (50.0%), PLBR (68.2%), FTR (90.5%), HM (52.9%), EM (75.0%), CA (70.0%), BA (50.0%), BTCN (71.4%), SG (53.3%), DM (66.7%), ELTR (50.0%), LA (50.0%), EM (100%), PLBR (50.0%), AGRIT (50.0%), ST (80.0%) and T&FP (66.7%) whereas students from trades such as WLDR (93.8%), DM (55.0%), DTPO (90.0%), HN (60.0%), ARM (77.8%) and FTR (75.0%) stated as excellent while students claimed to be satisfactory are MREEA (47.4%), ED (58.3%), WLDR (66.7%) and CNC (75.0%). The students of HC (100%) and T&E (47.6%) only claimed as poor. It shows that the attitude of students from various streams is satisfactory (33 out of 41 trades) whereby students of 6 trades is highly satisfactory while students of only 2 trades (HC and T&E) is dissatisfactory with on-the job training and internship provided by the industries during the course.

The *ANOVA* table 5.16 shows that the F value is 20.217 and the corresponding *p* value of significance is 0.000, which is less than 0.05 at 5% level of significance. It means that there is a high significant difference between the students from different streams with respect to on-the job training/ internship. A difference is noticed with students whereby students are satisfied and highly satisfied while students of HC and T&E are unsatisfied. The most of the students from majority of different streams are satisfied except 2 trades.

**5.5.5.6 Latest tools and equipments.**

Table 5.15 shows that attitude of most of the students from different trades towards latest tools and equipment is good i.e. 100% of IT, 78.3% of HC, 66.7% of OSS, 100% of ISR, 80.0% of AA, 45.0% of CT, 57.9% of MREEA, 37.5% of MCA, 63.6% of MFS, 55.6% of COPA, 62.5% PLBR, 50.0% of HM, 50.0% of EM, 50.0% of CA, 60.0% of BA, 100% of DTPO, 100% of ARM, 100% of WLDR, 60% of FTR, 33.3% of DM, 66.7% of ELTR, 50.0% of LA, 100% of EM, 50.0% of PLBR, 75.0% of CNC and 80.0% of ST whereas students of trades like 73.7% of AET, 81.2% of WLDR, 72.7% of FTR, 50.0% of DM, 90.0% of HN, 85.7% of BTCN, 80.0% of AGRIT and 50.0% of T&FP claimed as excellent while 72.7% of ED and 42.9% of T&E said satisfied. The students of trades such as 100% of AM, 72.7% of CRM, 50.0% of CGDM, 62.5% of ELTR and 52.4% of SG claimed as poor. It means that majority of the students of different trades (out of 41 trades, 29 and 7 trades) are satisfied and highly satisfied respectively except students from 5 trades are not satisfied with the available facility of latest tools and equipments in the institutions.

According to *ANOVA* table 5.16, the *F* value is 9.259 and its corresponding value of is 0.000, which is less than 0.05 at 5% level of significance. It means that there is a significant difference between the attitude of the students from different trades with respect to facilities of latest tools and equipments available in the institutions. A difference is noticed within the different trades where most of the students from majority of the trades are satisfied whereby the students of 5 trades have shown dissatisfaction with the tools and equipments used for training in the institutions.

**5.5.5.7 Trainers/Faculties of the course**

Table 5.15 shows the overall attitude of most of the students from different streams with respect to trainers/faculties are excellent i.e. 100% of HC and 100% of AM, 80.0% of OSS, 78.9% of AET, 60.05 % of AA, 62.% of ELTR, 50.0% of COPA, 75.0% of WLDR, 82.4% of HM, 50.0% of EM, 80.0% of CA, 60.0% of BA, 100% of DTPO, 90.0% of HN, 66.7% of SG, 66.7% of T&E, 50.0% of FTR, 66.7% of DM, 90.0% of AGRIT, and 100% of T&FP whereas students from trades like 100% of IT, 54.5% of CRM, 55.6% of CGDM, 45.0% of CT, 60.0% of MREEA, 66.7% of MCA, 90.9% of MFS, 50.0% of PLBR, 65.2% of FTR, 60.0% of DM, 100% of ARM, 85.7% of BTCN, 75% of ED, 100% of WLDR, 66.7% of ELTR, 100% of LA, 100% of EM, 100% of PLBR, 100% of CNC and 100% of ST claimed as good while students of only one trade

i.e. ISR (41.7%) said satisfactory.  It means most of the students (21 trades out of 41 trades) from different streams are satisfied and highly satisfied (20 trades) towards trainers/faculties teaching various courses in the institutions.

The ***ANOVA*** table 5.16 shows that the F value is 6.823 and the corresponding *p* value of significance is 0.000, which is lower than 0.05 at 5% level of significance. It means that there is a significant difference between the attitudes of students from different trades with respect to teachers/faculties teaching in the institutions. A difference is noticed with the students as most of the students from most of the trades are highly satisfied whereas students from the remaining trades are satisfied.

### 5.5.5.8 Instructors for internship/training

Table 5.15 shows the attitude of most of the students from different trades toward instructor for internship at training places shows good i.e. IT (100%), AM (80.0%), CRM (63.6%), AET (94.4%), CGDM (64.7%), ISR (50.0%), AA (80.0%), CT(80.0%), MREEA (63.2%), MCA (52.2%), MFS (81.8%), ELTR (62.5%), COPA (68.8%), PLBR (68.2%), FTR (90.5%), HM (52.9%), EM (75.0%), CA (70.0%), BTCN (71.4%), WLDR (100%), DM (66.7%), ELTR (66.7%), LA (50.0%), EM (100%), PLBR (50.0%), AGRIT (70.0%) and ST (70.0%) whereas students from OSS (73.3%), WLDR (87.5%), DM (55.0%), BA (80.0%), DTPO (90.0%), HN (100%), ARM (77.8%), SG (46.7%), FTR (75.0%) and T&FP (77.8%) claimed as excellent while students of ED (58.3%) and CNC (75.0%) disclosed as satisfactory and students of HC (100%) and T&E (47.6%) claimed to be poor. It means that most of the students from different trades (out of 41 trades, 29 and 10 trades) are satisfied and highly satisfied respectively with respect to instructors for internship except students of 2 trades (HC and T&E) are dissatisfied.

According to *ANOVA* table 5.16, the *F* value is 14.405 and the corresponding *p* value is 0.000, which is lower than 0.05 at 5% level of significance. Thus it can be concluded that there is a significant difference between the group of students from different trades and the instructors for internship and at training places. A major difference was found with the students from HC and T&E trades where most of the students are not satisfied with the instructor for internship/training.

### 5.5.5.9 Theory teaching in the class.

The attitude of the students from different trades (table 5.15) towards theory teaching in the class is good i.e. IT (100%), AET (57.9%) ISR (100%), CT (50.0%), MREEA (40.0%), MCA (50.0%),MFS (72.7%), ELTR (50.0%), COPA (52.9%), EM (75.0%), CA (50.0%), ARM (100%), BTCN (57.1%), ED (83.3%), SG (95.2%), T&E (95.2%), WLDR (100%), FTR (50.0%), ELTR (66.7%), LA (100%), PLBR (100%), CNC (50.0%), AGRI (90.0%) and ST (80.0%) whereas students from HC (100%) AM (60.0%), CRM (45.5%), OSS (60.0%), CGDM (72.2%), AA (80.0%), PLBR (54.2%), WLDR (87.5%), FTR (78.3%), DM (60.0%), HM (88.2%), BA (80.0%), DTPO (100%), HN (100%), DM (66.7%) and T&FP (70.0%) claimed to be excellent while EM (66.7%) said to be satisfactory. It means that the attitude of the students with respect to theory teaching from different trades is satisfactory (25 trades out of 41 trades) and highly satisfactory (16 trades) while students of EM is only dissatisfactory.

The *ANOVA* table 5.16 shows that the F value is 8.065 and the corresponding *p* value of significance is 0.000 which is less than 0.05 at 5% level of significance. It means that there is a significant difference in the attitude of the students from different trades towards theory taught in the institutions for various courses. A difference is noticed where most of the students from most of the trades are satisfied and some are highly satisfied except students from one trade (EM) are not satisfied.

### 5.5.5.10 Practical training in the institutions

It is observed that majority students (table 5.15) from different trades claimed to be excellent i.e. IT (94.1%), HC (100%), OSS (93.3%), AET (73.3%), CGDM (77.8%), ISR (50.0%), CT (70.0%), ELTR (62.5%), COPA (55.6%), PLBR (66.7%), WLDR (87.5%) , FTR (82.6%), DM (70.0%), HM (100%), EM (50.0%), CA (70.0%), BA (60.0%), DTPO (100%), HN (100%), ARM (77.8%), BTCN (100%), T&E (52.4%), FTR (100%), CNC (100%) and T&FP (80.0%) whereas students from AM (60.0%), AA (60.0%), MREEA (75.0%), MCA (62.5%), ED (75.0%), SG (76.2%), WLDR (100%), DM (66.7%), ELTR (66.7%), LA (100%), EM (66.7%), PLBR (50.0%), AGRI (60.0%) and ST (90.0%) expressed good while students of MFS (72.7%) and CRM (36.4%) claimed as satisfactory and poor respectively with regards to practical training. It means attitude of majority of the students from different trades (26 out of 41 trades) is highly satisfactory whereas students of 14 trades are satisfactory except students of CRM were dissatisfied with the practical training provided by the institutions for different trades.

According to *ANOVA* table 5.16, the *F* value is 9.204 and the corresponding *p* value is 0.000 which is lower than 0.05 at 5% level of significance. It is can be concluded that there is a significant difference between attitudes of the students of different trades with respect to practical training provided by the institutions. It shows that majority of the students from most of the trades are highly satisfied whereas other students are satisfied except students of CRM trades.

### 5.5.5.11 Syllabus framed for the course

Table 5.15 shows that majority of the students from different trades said good are 100% of IT, 100% of HC and 55.6% of CRM, 73.3% of OSS, 42.1% of AET, 38.9% of CGDM, 80.0% of AA, 36.8% of CT, 63.2% of MREEA, 54.5% of MFS, 85.7% of ELTR, 77.8% of COPA, 63.6% of PLBR, 54.5% of FTR, 78.9% of DM, 75.0% of HM, 100% of EM, 66.7% of CA, 100% of ARM, 100% of BTCN, 91.7% of ED, 57.1% of SG, 52.4% of T&E, 66.7% of WLDR, 50.0% of FTR, 66.7% of DM, 83.3% of ELTR, 100% of LA, 100% of PLBR, 75.0% of CNC, 90.0% of AGRIT and 80.0% of ST, whereas students claimed to be excellent are 80.0% of AM, 66.7% of WLDR, 60.0% of BA, 90.0% of DTPO, 100% of HN and 60.0% of T&FP while students stated satisfactory are 45.5% of ISR, 54.2% of MCA and 66.7% of EM. It shows that attitude of students from different trades with respect to syllabus framed for the course by the concern authority is satisfactory and highly satisfactory i.e. out of 41 trades, 35 trades and 6 trades respectively.

According to *ANOVA* table 5.16, the *F* value is 6.011 and the corresponding *p* value is 0.000, which is smaller than 0.05 at 5% level of significance. Thus it can be concluded that there exists a significant difference between the attitudes of the students towards syllabus framed by the concern authority. The difference is found in-between the students who are satisfied and highly satisfied.

### 5.5.5.12 Curriculum of the course

Table 5.15 shows the student's attitude towards curriculum where the majority of the students said good i.e. 100% of IT, 100% of HC and 60.0% of AM, 36.4% of CRM, 85.7% of OSS, 66.7% of AET and 70.6% of CGDM, 41.7% of ISR, 55.0% of CT, 73.7% of MREEA, 54.2% of MCA, 63.6% of MFS, 60.0% of COPA, 57.1% of PLBR, 60.0% of FTR, 63.2% of DM, 58.8% of HM, 100% of EM, 90.0% of CA, 100% of ARM, 91.7% of

ED, 81.0% of SG, 61.9% of T&E, 66.7% of WLDR, 100% of FTR, 100% of DM, 83.3% of ELTR, 100% of LA, 66.7% of EM, 100% of PLBR, 75.0% of CNC, 90.0% of AGRIT, 70.0% of ST and 80.0% of T&FP whereas students of trades such as 60.0% of AA, 71.4% of ELTR, 56.2% of WLDR, 70.0% of BA, 90.0% of DTPO, 100% of HN and 100% of BTCN claimed as excellent. It means that majority of the students from different trades are satisfied and highly satisfied with regards to curriculum framed by the authority for the course

According to *ANOVA* table 5.16, the *F* value is 5.999 and the corresponding *p* value is 0.000, which is less than 0.05 at 5% level of significance. It means that there is a significant difference between the attitude of students from different trades and the curriculum framed by the concern authority. A difference was found among the students where the most of the students from different trades are more satisfied as well as highly satisfied.

To sum up the attitude of ongoing students on the basis of trades, the data was analyzed with the help of The **One way ANOVA** Table which shows that *p* value is less than 0.05 at 5% level of significance for all the attributes tested above. It means that there exists a significant difference between the attitudes of ongoing students from different trades with regards to all the 12 attributes tested. Even though there is significant difference in the opinion of the ongoing students, the difference is positive in nature and not negative. The result shows that ongoing students are satisfied with respect to classrooms in the institutions, library facility available in the institutions, teaching aids used by faculty, infrastructure facility, on-the job training/ internship, latest tools and equipments, trainers/faculty of the course, instructors for internship, theory teaching in the class, practical training in the institutions, syllabus farmed by the concerned authority and the overall curriculum of the authority. So the attitude of respondents from different trades shows that there exist difference between the groups in their attitude towards facilities available in the institutions and curriculum framed by the authority for all the statements tested above under one way ANOVA test but the students shows satisfactory and positive attitude, **thus the null hypothesis is rejected.**

## 5.5 Conclusion:

**Table No: 5.17 Table showing a brief summary of attitude of On-going students**

| Aspects of facilities available and curriculum tested based on the Objective | Gender | District | Taluka | Stream | Trades |
|---|---|---|---|---|---|
| Attitude of ongoing students | Accepted | Accepted | Rejected | rejected | Rejected |
| 1) Class rooms | .817 | .103 | **.000** | **.000** | **.000** |
| 2) Library facility | .115 | **.008** | **.000** | **.000** | **.000** |
| 3) Teaching aids | .072 | .404 | **.030** | **.000** | **.000** |
| 4) Infrastructure facilities | **.007** | .803 | .194 | **.000** | **.000** |
| 5) On the job training/ internship | **.012** | .444 | **.000** | **.000** | **.000** |
| 6) Latest tools and equipments. | **.010** | .160 | **.045** | **.000** | **.000** |
| 7) Trainers/ Faculties of the Course | **.000** | **.018** | **.033** | **.000** | **.000** |
| 8) Instructors for internship/training places | **.035** | .417 | **.000** | **.000** | **.000** |
| 9) Theory teaching in the class | .617 | .848 | **.007** | **.000** | **.000** |
| 10) Practical training in the institutions | .780 | .280 | .119 | **.000** | **.000** |
| 11) Syllabus framed for the course | .148 | **.010** | **.000** | **.000** | **.000** |
| 12) Overall Curriculum of the course | .241 | .649 | **.016** | **.000** | **.000** |

With the help of above table (5.17) and the hypothesis formed, it can be conclude that the ongoing students are not happy and shown significant difference in most of the cases tested above about the facilities available in the institutions and curriculum framed in the state of Goa.  Between the Male and the Female, they do not differ much in their attitude for various facilities available and the curriculum in most of the attributes tested except in case of *five* attribute there a significant difference is noticed and they are the female students who are more satisfied than the male students. Further, with regard to North and South ongoing students, they do not differ in their attitude in most of the attributes tested except in case of *three* attributes there was a significant difference between the rural and urban respondents and they were the North students are more satisfied with the facilities available and curriculum framed in the state of Goa. The attitude of ongoing students from different taluka reveals that there is a significant difference in most of the attributes tested except few attributes shows no difference in their attitude. Between ongoing students from different streams, there exist a high difference in their attitude in all the attributes tested as well as Trades towards facilities available in the institutions and curriculum framed by the authority. Thus based upon the above brief important findings, we can conclude that, *"attitude of ongoing students towards facilities available and curriculum is significantly different and unsatisfactory". It means the attitude of ongoing students shows that they are not happy towards facilities available and curriculum and curriculum framed by the authority. So the null hypothesis is rejected and alternate hypothesis is accepted.* The ongoing students in general are not satisfied and unhappy with facilities offered and

curriculum whereby a difference is seen in their attitude from various talukaswise, streamwise and tradewise towards facilities available in the institutions and the curriculum framed in the state of Goa.

The chapter covers a detailed data analysis and interpretation of selected sample respondents. The researcher has covered sample of ongoing Students (Present student). There are questions covered by the researcher which asked during the field work. The researcher has included profile and introductory of the skill development programmes which helped to make a detailed study. The researcher has also covered hypothesis testing of the related sample respondents. The skill development programmes which provide training through various institutions to the students of SSC is of much good to the students. The results of the collected data show that the students are benefited through the skill development programmes.

## 6.1 Introduction:

In order to evaluate the contribution of Skill Development Programmes in Goa, it was also important to know the views and the impact of skill courses on the past students for getting employed. To assess the contribution of skill development programmes to the Goa's economic development in terms of providing employment and to make students self employed by making students independent it was a need to find the status of past students. Hence, past students from 10 different streams were considered and the survey was conducted to analyze and draw findings out of it. A close questionnaire was prepared and circulated to the past students to get their feedback. The responses of past students were collected from 10 different streams and 624 students, they are High School (33 students), vocational studies (173 students), UNID (25 students), ITI (157 students), HRDFS (67 students), EDP (8 students), GHRDC (24 trainees), TRCPC (38 trainees), ApprT (38 trainees) and OITSG (60 trainees). The main objective behind collecting data from past students to know the impact of skill development programmes on employment and self employment. They are the past student who only can tell and give exact scenario of whether they are employed or not by which we can make whether the courses are worthy to get the job. The various courses were considered such as NSQF stream 4 courses they are IT, Healthcare, Automobile and retail, 9 courses from vocational studies they are CRM, OSS, Auto Engineering Technology, Commercial Garments, Insurance, Auditing and Accounting, marketing and salesmanship, complete technologies and travel and Tourism, 2 departments from University such as Master of Financial Services (MFS) and Master of Computer Applications (MCA), 8 courses from ITI i.e. Electrician, COPA, plumber, welder, fitter, diesel mechanic, hotel management and electronics, 6 courses from HRDFS namely computer application, Business Application, DTP, Home Nursing, Air condition/ refrigerator and beauticians, 1 course of EDP, 1 course of GHRSDC i.e. security guards, 1 course under Trcpc i.e. tailoring and embroidering, 8 courses of Apprenticeship Training such as diesel mechanic, welder, electrician, lab assistant, CNC operator, PLC operator, Hotel Management and fitter whereas 3 courses from OITSG they are agriculture, animal husbandry and urban development. So, all together 43 courses from different streams were selected to gather information of Skill Development Programmes and to check the amount of impact on the employment and social economy. It would give a clear picture about the number of students employed, self employed or pursuing higher education after completion of their courses and also whether they are unemployed.

## 6.2 Analysis

The analysis and interpretation of the various opinions given by the various respondents which were collected from the past students are shown in the form of tables below.

### 6.2.1 Social profile

The below tables shows the social profile of the respondents surveyed for the research on the basis of gender, district and taluka wise.

**Table 6.1: Table showing Past students (Gender)**

| Sr No | Institution | Particulars | | Total |
|---|---|---|---|---|
| | | Male | Female | |
| 1 | HS (NSQF) | 18 (54.5%) | 15 (45.5%) | 33 (100%) |
| 2 | HSS (VOC) | 82 (47.4%) | 91 (52.6%) | 173 (100%) |
| 3 | UNID | 11 (44.0%) | 14 (56.0%) | 25 (100%) |
| 4 | ITI | 149 (94.9%) | 8 (5.1%) | 157 (100%) |
| 5 | HRDFS | 26 (38.8%) | 41 (61.2%) | 67 (100%) |
| 6 | EDP | 0 (0.0%) | 8 (100%) | 8 (100%) |
| 7 | GHRSDC | 18 (72.0%) | 7 (28.0%) | 25 (100%) |
| 8 | TrCPC | 0 (0.0%) | 38 (100%) | 38 (100%) |
| 9 | ApprT | 31 (81.6%) | 7 (18.4%) | 38 (100%) |
| 10 | OITSG | 19 (31.7%) | 41 (68.3%) | 60 (100%) |
| TOTAL | | **354 (56.7%)** | **270 (43.3%)** | **624 (100%)** |

Table 6.1 highlights the data of the number of past students collected (gender wise) from the state of Goa. Most of the respondents are males (56.7%) and the minority (43.3%) of the past students is females. Most of HS, ITI, GHRDC, ApprT i.e.54.5%, 94.9%, 72.0%, 81.6% are males while majority of the students from vocational, UNID, HRDFS, EDP, TrCPC, and OITSG i.e. 52.6%, 56.0% 61.2%, 100%, 100% and 68.3% are dominated by females. It can be seen from the above table that the students at lower level i.e. in the schools are dominated by males but as it reaches to higher level of education the trend of male students is lower than females. It makes clear that females are dominating males as it goes upward for higher education. The trainees for EDP, TrCPC streams female students are 100% who take admission for the course.

**Table 6.2: Table showing Past students (District)**

| Sr No | Institution | Particulars | | Total |
|---|---|---|---|---|
| | | North | South | |
| 1 | **HS (NSQF)** | **16 (48.5%)** | **17 (51.5%)** | **33 (100%)** |
| 2 | **HSS (Voc)** | 132 (76.3%) | 41 (23.7%) | 173 (100%) |
| 3 | **UNID** | 17 (68.0%) | 8 (32.0%) | 25 (100%) |
| 4 | **ITI** | 89 (56.7%) | 68 (43.3%) | 157 (100%) |
| 5 | **HRDFS** | 47 (70.1%) | 20 (29.9%) | 67 (100%) |
| 6 | **EDP** | 7 (87.5%) | 1 (12.5%) | 8 (100%) |
| 7 | **GHRSDC** | 25 (100%) | 0 (0.0%) | 25 (100%) |
| 8 | **TrCPC** | 36 (94.7%) | 2 (5.3%) | 38 (100%) |
| 9 | **AprT** | 36 (94.7%) | 2 (5.3%) | 38 (100%) |
| 10 | **OITSG** | 29 (48.3%) | 31 (51.7%) | 60 (100%) |
| TOTAL | | **434 (69.6%)** | **190 (30.4%)** | **624 (100%)** |

The majority of the past students (table 6.2) were collected from North District (69.6%) as compared to South District (30.4%). In case of NSQF (51.5%) and OITSG (51.7%), majority of the respondents are from South district whereas in case of other streams such as Vocational, UNID, ITI, HRDFS, EDP, TrCPC, ApprT i.e. 76.3%, 68.0%, 56.7%, 70.1%, 87.5%, 94.7%, 94.7% respectively and 100% of GHRSDC students are from North District. It is noticed that most of the institutions in Goa are located in North District as compared to South District due to which majority of the students considered for survey are from North district. The numbers of respondents collected are based on multistage random sampling method for the research. In case of UNID there is only one University in Goa which is located in the North District for which most of the students are collected from nearby area of the North district.

**Table 6.3: Table showing Past students (Taluka)**

| Sr No | Particu-lars | HS-NSQF (%) | HSS-Voc (%) | UNID (%) | ITI (%) | HRDFS (%) | EDP (%) | GHRS DC (%) | TrC-PC (%) | AprT (%) | OITSG (%) | TOT (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Pernem | 16 (48.5) | 39 (22.5) | 1 (4.0) | 27 (17.2) | 13 (19.4) | 2 (25.0) | 6 (24.0) | 14 (36.8) | 15 (39.5) | 20 (33.3) | 153 (24.5) |
| 2 | Bardez | - | 2 (1.2) | 13 (52.0) | 2 (1.3) | 9 (13.3) | 4 (50.0) | 2 (8.0) | 1 (2.6) | 9 (23.6) | 3 (5.0) | 45 (7.2) |
| 3 | Tiswadi | - | 91 (52.6) | 3 (12.0) | 40 (25.5) | 25 (37.3) | 2 (25.0) | - | 10 (26.4) | 8 (21.1) | 3 (5.0) | 182 (29.2) |
| 4 | Bicholim | - | - | 1 (4.0) | | - | - | 2 (8.0) | - | 2 (5.3) | - | 5 (0.8) |
| 5 | Sattari | - | - | - | - | - | - | 14 (56.0) | - | - | - | 14 (2.2) |
| 6 | Ponda | - | - | 2 (8) | 10 (6.4) | 1 (1.5) | - | - | 11 (28.9) | 1 (2.6) | - | 25 (4.0) |
| 7 | Salcete | - | 6 (3.5) | 4 (16.0) | 44 (28) | 7 (10.5) | - | - | 2 (5.3) | 1 (2.6) | 28 (46.7) | 92 (14.7) |
| 8 | Quepem | - | - | - | 3 (1.9) | - | - | - | - | - | - | 3 (0.5) |
| 9 | Mormugao | 17 (54.5) | 35 (20.2) | 1 (4.0) | 30 (19.1) | 5 (7.5) | - | 1 (4.0) | - | 2 (5.3) | 6 (10.0) | 97 (15.6) |
| 10 | Sanguem | - | - | - | - | 7 (10.5) | - | - | - | - | - | 7 (1.1) |
| 11 | Dharban-dora | - | - | - | 1 (0.6) | - | - | - | - | - | - | 1 (0.2) |
| 12 | Canacona | - | - | - | - | - | - | - | - | - | - | - |
| 13 | **Total** | **33 (100)** | **173 (100)** | **25 (100)** | **157 (100)** | **67 (100)** | **8 (100)** | **25 (100)** | **38 (100)** | **38 (100)** | **60 (100)** | **624 (100)** |

**(Source: Field Work)**

Table No.6.3 reveals the different Taluka from which past students were collected for the purpose of gathering information of skill development programmes in Goa. Most of the students were collected from Tiswadi Taluka (29.2%) out of the 12 Talukas followed by Pernem 24.5%, Mormugao 15.6%, Salcete 14.7%,  Bardez 7.2%, Ponda 4.0%, Sattari 2.2%, Sanguem 1.1% , Bicholim 0.8%, Quepem 0.5%,and Dharbandora 0.2%.

The stream wise past students considered for the study are NSQF students were collected from only two Talukas i.e. Pernem and Mormugao (48.5% and 54.5%) respectively. For Vocational studies five talukas were taken for the study i.e. Pernem, Bardez, Tiswadi, Salcete and Mormugao. Most of the respondents from Vocational studies are from Tiswadi i.e. 52.6% followed by Pernem Taluka i.e. 22.5% Mormugao 20.2%, Salcete 3.5% and Bardez 1.2%. The UNID students were surveyed from seven talukas whereby majority of the students i.e. 52% were collected from Bardez Taluka followed by 16% from Salcete, 12% from Tiswadi, 8% from Ponda and remaining 4% each from Pernem, Bicholim and Mormugao. The ITI students were considered from eight different talukas and the majority of the students were from Salcete i.e. 28.0% followed by Tiswadi (25.5%), Mormugao (19.1%), Pernem (17.2%) and so on. The HRDFS students were collected from 7 Talukas and most of them were from Tiswadi (37.3%) and the rest from Pernem (19.4%), Bardez (13.3%), Sanguem (10.5%), Salcete (10.5), etc. EDP trainees were surveyed from only 3 talukas namely Bardez (50%), Pernem and Tiswadi 25% each. The GHRSDC trainees were considered for study from 5 talukas whereby majority of the trainees were from Sattari taluka (56%) followed by Pernem (24.0%), Bardez and Bicholim (8.0%) each and Mormugao (4.0%). So also TrCPC trainees were collected from 5 different talukas and majority were from Pernem (36.8%), Ponda (28.9%), Tiswadi (26.4%), etc. The Apprenticeship trainees were considered from 7 talukas namely Pernem (39.5%), Bardez (23.6%), Tiswadi (21.1%) and few students from Bicholim, Ponda, Salcete and Mormugao. The majority of OITSG trainees were collected from Salcete (46.7%) followed by Pernem (33.3%), Mormugao (10.0%) while Bardez and Tiswadi (5.0%) each.

The above table shows that out of the 12 talukas in Goa, 11 talukas were considered for the survey except Canacona. Majority of the past students collected from different talukas were Mormugao taluka for NSQF, Tiswadi Taluka for Vocational students, UNID students from Bardez Taluka, ITI students from salcete taluka, HRDFS from Tiswadi Taluka, EDP trainees from Bardez taluka, GHRSDC trainees from Sattari taluka, TrCPC trainees from Pernem taluka, Apprentices trainees from Pernem taluka and OITSG trainees from Salcete taluka. The overall result of the past students from different talukas shows that most of the students surveyed are from Tiswadi taluka.

**6.2.2 Waiting period for getting job or self employment after completion of course**

Table 6.4 depicts the time taken by the students to get their first job or to start their own business. The researcher has made an attempt to find out whether students have joined "soon after" the course. "6 months" "1 year", "2 years" and "3 years" to get their first job after completion of the course.

**Table 6.4: Table showing waiting period for getting employed**

| Sr No | Course | Particulars | | | | Total |
|---|---|---|---|---|---|---|
| | | 6 months | 1 Year | 2 Year | 3 Year | |
| **A. NSQF** | | | | | | |
| 1 | IT | - | - | - | - | (0) |
| 2 | HealthCare | - | - | - | - | (0) |
| 3 | Automobile | - | - | - | - | (0) |
| 4 | Retail | - | - | - | - | (0) |
| 5 | **Total** | - | - | - | - | **(0)** |
| **B.Voc** | | | | | | |
| 1 | Catering | 7(100) | - | - | - | 7(100) |
| 2 | OSS | 6(50.0) | 5(41.7) | 1(8.3) | - | 12(100) |
| 3 | Automobile Eng. | 4(44.4) | 4(44.4) | 1(11.2) | - | 9(100) |
| 4 | CGDM | 3(75.0) | 1(25.0) | | - | 4(100) |
| 5 | Insurance | 7(41.2) | 7(41.2) | 3(17.6) | - | 17(100) |
| 6 | Ac and Auditing | - | 2(100) | - | - | 2(100) |
| 7 | Marketing, Salesmanship | - | 3(100) | - | - | 3(100) |
| 8 | Computer Techniques | 8(66.6) | 2(16.7) | 2(16.7) | - | 12(100) |
| 9 | Travel  Tourism | 4(80.0) | - | 1(20.0) | - | 5(100) |
| 10 | **Total** | **39(54.9)** | **24(33.8)** | **8(11.3)** | **-** | **71(100)** |
| **C. UNID** | | | | | | |
| 1 | MCA | 13(100) | - | - | - | 13(100) |
| 2 | MFS | 8(70.0) | 3(30.0) | - | - | 11(100) |
| 3 | **Total** | **21(87.5)** | **3(12.5)** | **-** | **-** | **24(100)** |
| **D. ITI** | | | | | | |
| 1 | Electrician | 11(73.3) | 3(20) | 1(6.7) | - | 15(100) |
| 2 | COPA | 6(85.7) | 1(14.3) | - | - | 7(100) |
| 3 | Plumber | 26(76.5) | 8(23.5) | - | - | 34(100) |
| 4 | COE | 7(77.8) | 1(11.1) | 1(11.1) | - | 9(100) |
| 5 | Fitter | 10(83.3) | 2(16.7) | - | - | 12(100) |
| 6 | Diesel Mechanic | 4(66.7) | 2(33.3) | - | - | 6(100) |
| 7 | Hotel Management | 18(72.0) | 7(28.0) | - | - | 25(100) |
| 8 | Electronic Mechanic | 2(25.0) | 2(25.0) | 4(50.0) | - | 8(100) |
| 9 | **Total** | **84(72.4)** | **26(22.4)** | **6(5.2)** | **-** | **116(100)** |
| **E. HRDFS** | | | | | | |
| 1 | Comp App | - | - | - | - | (0) |
| 2 | Business App | 3(75.0) | 1(25.0) | - | - | 4(100) |
| 3 | DTP | 10(76.9) | 3(23.1) | - | - | 13(100) |
| 4 | Home Nursing | 3(50.0) | 2(33.3) | 1(16.7) | - | 6(100) |
| 5 | Refrigeration | 2(40.0) | 3(60.0) | - | - | 5(100) |
| 6 | Beautician | 3(75.0) | 1(25.0) | - | - | 4(100) |
| 7 | **Total** | **21(65.6)** | **10(31.3)** | **1(3.1)** | **-** | **32(100)** |
| **F. EDP** | | | | | | |
| 1 | EDP | 7(87.5) | 1(12.5) | - | - | 8(100) |
| 2 | **Total** | **7(87.5)** | **1(12.5)** | **-** | **-** | **8(100)** |

| | | | | | | |
|---|---|---|---|---|---|---|
| **G. GHRDC** | | | | | | |
| 1 | GHRSD | 25(100) | - | - | - | 25(100) |
| 2 | **Total** | **25(100)** | **-** | **-** | **-** | **25(100)** |
| **H. TrCPC** | | | | | | |
| 1 | Tailoring, Embroidery | 12(63.2) | 7(36.8) | - | - | 19(100) |
| 2 | **Total** | **12(63.2)** | **7(36.8)** | **-** | **-** | **19(100)** |
| **I. ApprT** | | | | | | |
| 1 | Diesel Mech. | 1(100) | - | - | - | 1(100) |
| 2 | Welder | 3(75.0) | 1(25.0) | - | - | 4(100) |
| 3 | Electricals | 5(100) | - | - | - | 5(100) |
| 4 | Lab Asst. | 2(100) | - | - | - | 2(100) |
| 5 | CNC | 5(62.5) | 3(37.5) | - | - | 8(100) |
| 6 | PLC | 2(100) | - | - | - | 2(100) |
| 7 | Hotel Management | 3(75.0) | 1(25.0) | - | - | 4(100) |
| 8 | Fitter | 2(100) | - | - | - | 2(100) |
| 9 | **Total** | **23(82.1)** | **5(17.9)** | **-** | **-** | **28(100)** |
| **J. OITSG** | | | | | | |
| 1 | Agriculture | 16(84.2) | 3(15.8) | - | - | 19(100) |
| 2 | Animal Husbandry | 5(55.6) | 4(44.4) | - | - | 9(100) |
| 3 | Urban Development | 8(72.7) | 2(18.2) | 1(9.1) | - | 11(100) |
| 4 | **Total** | **29(74.3)** | **9(23.1)** | **1(2.6)** | **-** | **39(100)** |
| **Grand Total** | | **261(72.1)** | **85(23.5)** | **16(4.4)** | | **362(100)** |

**(Source: Field Work)**

The above table 6.4 shows that most of the past students (72.1%) got job within 6 months followed by 1 year (23.5%) and the rest within 2 years (4.4%). There were no NSQF students who joined for employment or self employment so no students responded for above question. The vocational students disclosed that majority of them took 6 months i.e. 54.9% to get their first job where some other students revealed that they took 1 year i.e. 33.8% and remaining students said they had to wait 2 years i.e. 11.3% to get their first job. It can be also observed that students who received first job within 6 months from vocational studies are Insurance 41.2% computer techniques 66.6% and travel and tourism 80%. Majority of students received within one year are from A/c and auditing, marketing and salesmanship i.e. 100% each. Maximum number of students from UNID have received their first job within six months i.e. 87.5% and rest of the students took one year i.e. 12.5%. Of the UNID students, MCA students got their job 100% within six months and majority of MFS students i.e. 70% received within six months and rest 30% got jobs after one year. It shows that most of the ITI students got jobs within 6 months of time period i.e. 72.4% and 1 year i.e. 22.4% and few said 2 years i.e. 5.2%. Majority of the students except electronic mechanic (25%) had not got job within 6 months or 1 year, and the rest i.e. 5.2% have got job within 2 years. In case of HRDFS students most of them were employed within six months i.e. 65.6% and rest within 1 year and 2 years i.e. 31.3% and 3.1%. Only one student from home nursing got delayed for getting job within short time, due to her personal problem. Students from DTP i.e. 76.9%, business

application and beautician i.e. 75% each got jobs within 6 months while most of refrigerator and home nursing i.e. 60% and 33.3% respectively got job within 1 year. Majority of EDP trainees got job within six months i.e. 87.5% while only one trainee i.e. 12.5% within 1 year. 100% of GHRDC trainees were employed within 6 months. Most of the TrCPC trainees i.e. 63.2% got job within 6 months and rest 36.8% within 1 year. In case of Apprenticeship training, most of the trainees have got job within 6 months i.e. 82.1% and only 17.9% within 1 year who are mostly from CNC course. The OITSG trainees also joined for the job within 6 months i.e. 74.3% while remaining 23.1% and 2.6% within 1 year and 2 years respectively.

It can be interpreted that most of the students from all the streams are employed within six months of period and 100% in GHRSDC after the completion of course either in the form of full time or part time self employment or job employment basis. It is observed that whether students are from vocational studies, UNID have been employed or self employed within six months, it means the students who have opted for skill courses are in a position to get job or to start their own business within a short period of time. The employers are willing to absorb skill students for the job which shows that there is a requirement of skill workers in the industry as well as in the market. A good number of students have joined for employment within one year which means students must be waiting for some better opportunity whereby they did not joined for the job but as soon as they found satisfactory job they joined within one year and the remaining few students from vocational studies have to wait for 2 years and none from UNID. The students who did not get job had to wait for 3 years of time period from different streams. There were no students from NSQF stream joined for job whereas most of vocational students from catering, OSS, automobile, CGDM, Insurance, Computer techniques and travel and tourism have received  employment within 6 months period except A/c and auditing, marketing and salesmanship  course students had to wait for 1 year to get employment. It means of the 9 courses 7 courses students get job very fast i.e. within 6 months. The UNID students got jobs within six months. MCA department students receive jobs faster than MFS course. It shows that all 100% students of MCA got job within six months compared to MFS students. It is observed that most of the ITI students as well HRDFS students are employed within six months or at the most 1 year they are mostly from COPA, fitter, COE, electrician etc except electronic mechanic which shows that they took 2 years to get employment. It means that for electronic mechanic jobs are unavailable in the market and there is no demand for such student in the market whereas

for students from other courses they are absorbed for the job easily and quickly within six months. Hence all courses except electronic mechanic students need to struggle to get jobs while other students from other courses get jobs in the market. The HRDFS students from different courses also get jobs within 6 months and 1 year who are mostly DTP, business application, beatification etc. except computer application students. It reveals that all HRDFS courses are good enough to provide jobs for the students. The computer application students have mostly joined for higher education and they are not interested in joining for the job. They prefer to acquire further education by taking admission for other courses wherever similar subject is available. Most of the students are found employed within one year except one student from Home nursing. Trainees from EDP, Trcpc, ApprT and OITSG have been mostly employed within 6 months of time and very few of them joined within a year whereby no trainees have waited for more than 1 year to get the job. It shows that students who have joined for job employment or self employment did not spend much more time from the completion of their course which means there are lot of opportunities for the trainees who undergo such courses to get employed or to start their own business. GHRDC trainees disclosed that they are being deployed for the job soon after completing their training or at the most within 6 months since their vacancies are created before training and then they are trained for a particular job. Most of the trainees of ApprT who were employed after six months and within 1 year are CNC apprenticeship. Trainees of OITSG from agriculture are mostly absorbed on the job as compared to animal husbandry and urban development within 6 months of training and only one trainee employed after 1 year while rest of the trainees from other training courses were employed within a period of 1 year.

### 6.2.3 Satisfaction about your present job

In table 6.5 A to J, the researcher has made an attempt to find the level of satisfaction of the candidates on-the job wherever they do their job. Students who were employed were asked to rank their satisfaction about the job. The main intention behind this was to see whether students are satisfied about the present employment or self-employment they are in. The researcher has used the 5 point likert scale from highly dissatisfied to highly satisfied.

## Table 6.5: Table showing satisfaction about your present job

| Sr No | Course | Highly Dissatisfied | Dissatisfied | Neutral | Satisfied | Highly Satisfied | Total |
|-------|--------|--------------------|--------------|---------|-----------|------------------|-------|
| **A.NSQF** | | | | | | | |
| 1 | IT | - | - | - | - | - | (0) |
| 2 | HealthCare | - | - | - | - | - | (0) |
| 3 | Automobile | - | - | - | - | - | (0) |
| 4 | Retail | - | - | - | - | - | (0) |
| 5 | **Total** | - | - | - | - | - | **(0)** |
| **B. Voc** | | | | | | | |
| 1 | Catering | - | - | - | 6(85.7) | 1(14.3) | 7(100) |
| 2 | OSS | - | - | 5(38.5) | 3(23.0) | 5(38.5) | 13(100) |
| 3 | Automobile Eng. | 1(11.1) | - | 2(20.0) | 4(40.0) | 3(30.0) | 10(100) |
| 4 | CGDM | - | - | 1(20.0) | 4(80.0) | - | 5(100) |
| 5 | Insurance | - | - | 7(41.2) | 8(47.1) | 2(11.7) | 17(100) |
| 6 | Ac, Auditing | - | - | - | 2(100) | - | 2(100) |
| 7 | Marketing, Salesmanship | - | - | - | 4(100) | - | 4(100) |
| 8 | Computer Techniques | - | - | 5-(41.7) | 6(50.0) | 1(8.3) | 12(100) |
| 9 | Travel Tourism | - | - | 3(60.0) | 2(40.0) | - | 5(100) |
| 10 | **Total** | **1(1.3)** | **-** | **23(30.7)** | **39(52.0)** | **12(16)** | **75(100)** |
| **C. UNID** | | | | | | | |
| 1 | MCA | - | - | - | 13(92.9) | 1(7.1) | 14(100) |
| 2 | MFS | - | - | - | 9(90.0) | 1(10.0) | 10(100) |
| 3 | **Total** | **-** | **-** | **-** | **22(91.7)** | **2(8.3)** | **24(100)** |
| **D. ITI** | | | | | | | |
| 1 | Electrician | 1(6.7) | - | 4(26.7) | 7(46.6) | 3(20.0) | 15(100) |
| 2 | COPA | - | 3(42.9) | 1(14.2) | 3(42.9) | - | 7(100) |
| 3 | Plumber | - | 1(2.9) | 4(11.8) | 22(64.7) | 7(20.6) | 34(100) |
| 4 | COE | - | - | 2(22.2) | 7(77.8) | - | 9(100) |
| 5 | Fitter | - | 1(8.3) | 2(16.7) | 7(58.3) | 2(16.7) | 12(100) |
| 6 | Diesel Mechanic | - | 2(33.3) | 1(16.7) | 3(50.0) | - | 6(100) |
| 7 | Hotel Management | 1(4) | - | 6(24) | 16(64.0) | 2(8) | 25(100) |
| 8 | Electronic mechanic | - | 1(12.5) | 2(25.0) | 3(37.5) | 2(25.0) | 8(1000 |
| 9 | **Total** | **2(1.7)** | **8(6.9)** | **22(19.0)** | **68(58.6)** | **16(13.8)** | **116(100)** |
| **E. HRDFS** | | | | | | | |
| 1 | Comp App | - | - | - | - | - | 0 |
| 2 | Business App | - | - | 2(40.0) | 3(60.0) | - | 5(100) |
| 3 | DTP | - | - | 2(18.2) | 5(45.5) | 4(36.4) | 11(100) |
| 4 | Home Nursing | - | - | - | - | 10(100) | 10(100) |
| 5 | Refrigeration | - | - | 1(20.0) | 4(80.0) | - | 5(100) |
| 6 | Beautician | - | - | 1(25.0) | 3(75.0) | - | 4(100) |
| 7 | **Total** | **-** | **-** | **6(17.1)** | **15(42.9)** | **14(40)** | **35(100)** |
| **F. EDP** | | | | | | | |
| 1 | EDP | - | 1(12.5) | 1(12.5) | 5(62.5) | 1(12.5) | 8(100) |
| 2 | **Total** | **-** | **1(12.5)** | **1(12.5)** | **5(62.5)** | **1(12.5)** | **8(100)** |
| **G. GHRDC** | | | | | | | |
| 1 | GHRSD | - | 10(40.0) | 8(32.0) | 7(28.0) | - | 25(100) |
| 2 | **Total** | **-** | **10(40.0)** | **8(32.0)** | **7(28.0)** | **-** | **25(100)** |
| **H. TrCPC** | | | | | | | |
| 1 | Tailoring Embroidery | - | - | 2(10.5) | 15(79.0) | 2(10.5) | 19(100) |
| 2 | **Total** | **-** | **-** | **2(10.5)** | **15(79.0)** | **2(10.5)** | **19(100)** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **I. ApprT** | | | | | | | |
| 1 | Diesel Mech. | - | 1(100) | - | - | - | 1(100) |
| 2 | Welder | - | - | 1(25.0) | 3(75.0) | - | 4(100) |
| 3 | Electricals | - | - | - | 5(100) | - | 5(100) |
| 4 | Lab Asst. | - | - | 1(50.0) | 1(50.0) | - | 2(1000 |
| 5 | CNC | - | - | 1(12.5) | 7(87.5) | - | 8(100) |
| 6 | PLC | - | - | 1(50.0) | 1(50.0) | - | 2(1000 |
| 7 | Hotel Mang. | 1(25.0) | - | - | 3(75.0) | - | 4(100) |
| 8 | Fitter | - | - | 1(50.0) | 1(50.0) | - | 2(1000 |
| 9 | **Total** | **1(3.6)** | **1(3.6)** | **5(17.8)** | **21(75.0)** | **-** | **28(100)** |
| **J. OITSG** | | | | | | | |
| 1 | Agriculture | - | - | 19(100) | - | - | 19(100) |
| 2 | Animal Husbandry | - | 1(9.1) | 3(27.3) | 7(63.6) | - | 11(100) |
| 3 | Urban Development | - | - | 5(41.7) | 6(50.0) | 1(8.3) | 12(100) |
| 4 | **Total** | **-** | **1(2.4)** | **27(64.3)** | **13(30.9)** | **1(2.4)** | **42(100)** |
| **Grand Total** | | **4(1.1)** | **21(5.6)** | **94(25.3)** | **205(55.1)** | **48(12.9)** | **372(100)** |

**(Source: Field Work)**

It can be seen from table 6.5 that most of the students were satisfied i.e.55.1% and highly satisfied i.e.12.9% whereas the remaining some of the students were neutral i.e. 25.3% while dissatisfied and highly dissatisfied were very negligible i.e 5.6% and 1.1% respectively. No students from NSQF had joined for the job so no students responded to the question whereas it is observed from the vocational students that majority of the students i.e. 52.0% and 16.0% were satisfied and highly satisfied respectively, few students were neutral i.e. 30.7% and very tiny number of students i.e. 1.3% were highly dissatisfied and none were dissatisfied about their jobs. Students from catering, A/c and auditing, marketing and salesmanship are 100% satisfied and highly satisfied. most of the students who neutral are from travel and tourism i.e. 60% none of the students from any course were dissatisfied but only one student from automobile was highly dissatisfied about his job. Most of the UNID students were satisfied i.e. 91.7% and remaining 8.3% were highly satisfied and none of the students were dissatisfied about the job they carry out. Majority of TIT students revealed that 58.6% and 13.8% are satisfied and highly satisfied whereas 19.0% were neutral while 6.9% and 1.7% were dissatisfied and highly dissatisfied about job they work on. Students who are dissatisfied are COPA and diesel mechanic whereas satisfied students are COE, hotel management, plumber, etc but highly satisfied are electronic mechanic, plumber and electrician. Most of the HRDFS students are satisfied i.e. 42.9% and 40% are highly satisfied and rest 17.1% were neutral. The students of home nursing are highly satisfied while most of the refrigerator students are satisfied followed by beautician, business application and DTP while none of them were dissatisfied. Majority of the EDP trainees are satisfied about whatever job they do after completing their course either self employed or employed for job i.e. 75% whereby

12.5% each were dissatisfied and neutral. In case of GHRSDC majority i.e. 40% of them said they were dissatisfied about the job while 32% were neutral and only 28% was satisfied. In case of TrCPC most of them were satisfied and highly satisfied i.e. 89.5% and remaining 10.5% were neutral. The Apprenticeship trainees said that they were satisfied i.e. 75.0%, while remaining 17.8% were neutral and 7.2% only were dissatisfied and highly dissatisfied about their job. Most of the trainees from electrical and hotel management course were satisfied i.e. 100% and 75.0% respectively whereby dissatisfied trainee was from diesel mechanic. The trainees from OITSG most of them were neutral i.e. 64.3% and remaining 30.9% were satisfied and 2.4% each were highly satisfied and dissatisfied.

It can be interpreted from the above analysis that most of the students from different streams are either satisfied or highly satisfied about the job they are working on except security guards of GHRSDC stream. All students i.e. 100% from catering, A/c and auditing, marketing and salesmanship are highly satisfied about the job whereas most of students from other courses like OSS, automobile, CGDM, insurance and computer techniques are also satisfied for the job except travel and tourism course. Some of the students were neutral whereby they are neither satisfied nor dissatisfied about the job. The UNID students are all satisfied about the job. Majority of the students of ITI, HRDFS are satisfied as well highly satisfied 72.4% and 82.9% respectively. It indicates that those students who have joined for the job after completing ITI and HRDFS courses are satisfied about their job. They like their job and happy to work on the same job. But, few students said that they are dissatisfied about job i.e. 8.6% which are negligible. Among the ITI students of electronic mechanic, plumber are most satisfied even they do some ground level works and dissatisfied are COPA and diesel mechanic. Majority of HRDFS i.e. 82.9% are satisfied while none of the students from any course are dissatisfied.

**6.2.4: Present job based on skill courses studied**

Table 6.6 depicts the students that were employed were in related to the skill courses they have studied by them. The aim behind asking the students to know whether the employment has any relation or they have joined as they have got the job and is it different from the field of training they have received. An attempt was made to find if the student can eventually take up job other than what they have studied. The respondents responded on the basis of "yes" and "No".

# Table 6.6: Table showing present job based on skill courses studied

| Sr No | Course | Particulars | | Total |
|---|---|---|---|---|
| | | Yes | No | |
| **A.NSQF** | | | | |
| 1 | IT | - | - | (0) |
| 2 | HealthCare | - | - | (0) |
| 3 | Automobile | - | - | (0) |
| 4 | Retail | - | - | (0) |
| 5 | **Total** | - | - | **(0)** |
| **B. Voc** | | | | |
| 1 | Catering | 7(100) | - | 7(100) |
| 2 | OSS | 10(76.9) | 3(23.1) | 13(100) |
| 3 | Automobile Eng. | 4(40.0) | 6(60.0) | 10(100) |
| 4 | CGDM | 1(20.0) | 4(80.0) | 5(100) |
| 5 | Insurance | 9(52.9) | 8(47.1) | 17(100) |
| 6 | Ac and Auditing | - | 2(100) | 2(100) |
| 7 | Marketing and Salesmanship | 4(100) | - | 4(100) |
| 8 | Computer Techniques | 9(75.0) | 3(25.0) | 12(100) |
| 9 | Travel and Tourism | 5(100) | - | 5(100) |
| 10 | **Total** | **49(65.3)** | **26(34.7)** | **75(100)** |
| **C. UNID** | | | | |
| 1 | MCA | 14(100) | - | 14(100) |
| 2 | MFS | 11(100) | - | 11(100) |
| 3 | **Total** | **25(100)** | **-** | **25(100)** |
| **D. ITI** | | | | |
| 1 | Electrician | 12(80.0) | 3(20.0) | 15(100) |
| 2 | COPA | 2(28.6) | 5(71.4) | 7(100) |
| 3 | Plumber | 30(88.2) | 4(11.8) | 34(100) |
| 4 | COE | 7(77.8) | 2(22.2) | 9(100) |
| 5 | Fitter | 11(91.7) | 1(8.3) | 12(100) |
| 6 | Diesel Mechanic | 5(83.3) | 1(16.7) | 6(100) |
| 7 | Hotel Management | 20(80.0) | 5(20.0) | 25(100) |
| 8 | Electronic Mechanic | 6(75.0) | 2(25.0) | 8(100) |
| 9 | **Total** | **93(80.2)** | **23(19.8)** | **116(100)** |
| **E. HRDFS** | | | | |
| 1 | Comp App | - | - | 0 |
| 2 | Business App | 5(100) | - | 5(100) |
| 3 | DTP | 11(100) | - | 11(100) |
| 4 | Home Nursing | 10(100) | - | 10(100) |
| 5 | Refrigeration | 2(40.0) | 3(60.0) | 5(100) |
| 6 | Beautician | 4(100) | - | 4(100) |
| 7 | **Total** | **32(92.0)** | **3(8.0)** | **35(100)** |
| **F. EDP** | | | | |
| 1 | EDP | 2(25.0) | 6(75.0) | 8(100) |
| 2 | **Total** | **2(25.0)** | **6(75.0)** | **8(100)** |
| **G. GHRDC** | | | | |
| 1 | Security Guards | 25(100) | - | 25(100) |
| 2 | **Total** | **25(100)** | **-** | **25(100)** |
| **H. TrCPC** | | | | |
| 1 | Tailoring and Embroidery | 19(100) | - | 19(100) |
| 2 | **Total** | **19(100)** | **-** | **19(100)** |

| | | | | |
|---|---|---|---|---|
| **I. ApprT** | | | | |
| 1 | Diesel Mech. | 1(100) | - | 1(100) |
| 2 | Welder | 1(25.0) | 3(75.0) | 4(100) |
| 3 | Electricals | 4(80.0) | 1(20.0) | 5(100) |
| 4 | Lab Asst. | 2(100) | - | 2(100) |
| 5 | CNC | 5(62.5) | 3(37.5) | 8(100) |
| 6 | PLC | 1(50.0) | 1(50.0) | 2(100) |
| 7 | Hotel Mang. | 2(50.0) | 2(50.0) | 4(100) |
| 8 | Fitter | 2(100) | - | 2(100) |
| 9 | **Total** | **18(64.3)** | **10(35.7)** | **28(100)** |
| **J. OITSG** | | | | |
| 1 | Agriculture | 20(100) | - | 20(100) |
| 2 | Animal Husbandry | 7(63.6) | 4(36.4) | 11(100) |
| 3 | Urban Development | 9(75.0) | 3(25.0) | 12(100) |
| 4 | **Total** | **36(83.7)** | **7(16.3)** | **43(100)** |
| **Grand Total** | | **299(79.9)** | **75(20.1)** | **374(100)** |

**(Source: Field Work)**

The data in the table 6.6 shows that the present job and the course studies by the pass out candidates is related to each other i.e. 79.9% and the job of few candidates and the courses studied is different i.e. 20.1%. No students were found to be employed on the job from NSQF stream whereby most of the students from vocational studies said that their job is related to their studies i.e. 65.3% and 34.7% agreed that their job is not related to their studies. Most of the students from OSS i.e. 76.9%, Insurance 52.9% and computer techniques i.e. 75% along with 100% each from catering, marketing and salesmanship and travel and tourism said that their job is related to their studies whereas majority of the students from automobile engineering, CGDM and A/c and auditing courses disclosed that it is not related to their studies i.e. 60%, 80%, 100% respectively. In case of UNID students 100% from MCA and MFS department agreed that whatever job they do is related to their studies. The ITI students reveals that majority of the job them joined for the job is related to the course they have studied i.e. 80.2% and only 19.8% student's job are not related to the courses they have studied. Majority of the students from all courses i.e. electrician 80%, plumber 88.2%, COE 77.8%, fitter 91.7%, diesel mechanic 83.3%, hotel management 80% and electronic mechanic75% are related to courses except students from COPA i.e. 71.4% said that their job is not related to the courses they have studies. Similarly most of the HRDFS students stated that jobs are related to the courses they have studied i.e. 92.0% and only 8.0% said not related to the courses. Trainees from EDP majority denied that their job is related i.e. 75.0% and only 25.0% agreed to be related to the course they have studied. 100% of GHRDC and TrCPC trainees disclosed that their job is related to the course. While most of the trainees from ApprT and OITSG also said that their job is related to the course they have learned i.e.

64.3% and 83.7% respectively. Most of the trainees from ApprT from welder said their job and course studied have no relation whereas as trainees from CNC, hotel management were 50-50%. So also animal husbandry and urban development of OITSG shows no relation to their studies.

It can be interpreted that most of the students/trainees from vocational, UNID, ITI, HRDFS, GHRSDC, TrCPC, ApprT and OITSG stream whatever job they do are related to the study they have studied except EDP trainees where the job is not related to the course. The vocational students from automobile engineering, CGDM, A/c and auditing courses most of them stated that their job has no relation to their studies. Even though out of the 9 courses, students from 6 courses accepted that their job is related to their studied still then students from 3 courses has denied that it is relate to their studies. It means students from automobile, CGDM and A/c and auditing are doing different jobs as compared to what they have studied. It can because they don't like to similar job have upset waiting for similar jobs or jobs are not available in the same category or they are not well paid on the job. The various reasons were told by the students to opt for some other job rather than continuing a job in similar field. Most of the students from ITI and HRDFS has agreed that their job are related to their studies what they have studied before whereas few students have disagreed from two different streams that their jobs are not related to their studies except from COPA course of ITI and refrigerator from HRDFS stream. It means that whatever courses are introduced by the government through various government and private institutes are very useful for the students to get jobs in the market. The courses available in ITI and HRDFS are job oriented which provides job for the students and they are helpful for the employers too. Majority of the students from Entrepreneurship development course i.e. 75% are not related while 100% of security guards and tailoring jobs are related to their course. Most of the courses of Apprenticeship training are related except trainees from welder, CNC, Hotel management, electrician and PLC revealed that there is no relation to the course. So also trainees of animal husbandry and urban development are doing some other job as compared to their course studied.

### 6.2.5: Reasons of unemployment

Table 6.7 (A to J) indicates the reason for unemployment of the students are successfully completing their course. As it mentioned in table No.11 that 28 students were unemployed out of 171 students whereas in case of NSQF, UNID none of the

students were found to be unemployed. The percentage is calculated on the basis sample size of the students who are actually unemployed i.e. N=28 and not on the basis of actual number of respondents i.e. 44 shown in the table due to multiple responses marked by the respondents. The various options available to the students were " unwillingness to start own business", "unwillingness to join the job", lack of expected salary, "No confidence to take up jobs", lack of finance", "start-up problem", "lack of government support" and nay other reason they feel it is suitable to be mentioned in the last option.

**Table 6.7: Reasons of unemployment**

| Sr N o | Course | Unwillingness to start business | Unwillingness to join for the job | Lack of expected salary | No confidence to take up job in the same stream | Lack of Finance | Start-Up problems | Lack of Government Support | Others | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| **A. NSQF** | | | | | | | | | | |
| 1 | IT | - | - | - | - | - | - | - | - | 0 |
| 2 | HealthCare | - | - | - | - | - | - | - | - | 0 |
| 3 | Automobile | - | - | - | - | - | - | - | - | 0 |
| 4 | Retail | - | - | - | - | - | - | - | - | 0 |
| 5 | **Total** | - | - | - | - | - | - | - | - | **0** |
| **B. Voc** | | | | | | | | | | |
| 1 | Catering | - | - | 2(40.0) | - | 2(40.0) | 1(20.0) | - | - | 5(100) |
| 2 | OSS | 1(12.5) | - | 2(25.0) | 3(37.5) | | 1(12.5) | - | 1(12.5) | 8(100) |
| 3 | Automobile Eng. | - | 1(33.4) | - | - | 1(33.3) | - | 1(33.3) | - | 3(100) |
| 4 | CGDM | - | 2(66.7) | - | - | - | 1(33.3) | - | - | 3(100) |
| 5 | Insurance | - | 2(20.0) | 2(20.0) | 2(20.0) | - | - | 2(20.0) | 2(20.0) | 10(100) |
| 6 | Ac and Auditing | - | - | - | - | - | - | - | 1(100) | 1(100) |
| 7 | Marketing, Salesmanship | - | 1(50.0) | 1(50.0) | - | - | - | - | - | 2(100) |
| 8 | Computer Techniques | 1(14.3) | 3(42.8) | 1(14.3) | | 1(14.3) | 1(14.3) | - | - | 7(100) |
| 9 | Travel Tourism | - | - | 2(40.0) | - | 2(40.0) | 1(20.0) | - | - | 5(100) |
| 10 | **Total** | **2(6.7)** | **9(30.0)** | **10(33.3)** | **5(16.7)** | **6(20.0)** | **5(16.7)** | **3(10)** | **4(13.3)** | **44(100)** |
| **C. UNID** | | | | | | | | | | |
| 1 | MCA | - | - | - | - | - | - | - | - | (0) |
| 2 | MFS | - | - | - | - | - | - | - | - | (0) |
| 3 | **Total** | - | - | - | - | - | - | - | - | **(0)** |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **D. ITI** | | | | | | | | | |
| 1 | Electrician | - | 1(25.0) | 1(25.0) | - | 1(25.0) | 1(25.0) | - | - | 4(100) |
| 2 | COPA | - | - | 4(100) | - | - | - | - | - | 4(100) |
| 3 | Plumber | 1(12.5) | 2(25.0) | 4(50.0) | 1(12.5) | | | | | 8(100) |
| 4 | COE | 1(25.0) | 1(25.0) | 1(25.0) | - | 1(25.0) | | - | - | 4(100) |
| 5 | Fitter | - | 1(16.7) | 2(33.2) | - | | 1(16.7) | 1(16.7) | 1(16.7) | 6(100) |
| 6 | Diesel Mechanic | - | 1(9.1) | 6(54.5) | - | 1(9.1) | 2(18.2) | 1(9.1) | - | 11(100) |
| 7 | Hotel Manag | - | 1(16.7) | 4(66.6) | - | - | 1(16.7) | - | - | 6(100) |
| 8 | Electronic Mechanic | - | - | 3(50.0) | 1(16.7) | - | - | 2(33.3) | - | 6(100) |
| 9 | **Total** | **2(6.7)** | **7(23.3)** | **25(83.3)** | **2(6.7)** | **3(10.0)** | **5(16.7)** | **4(13.3)** | **1(3.3)** | **49(100)** |
| **E. HRDFS** | | | | | | | | | |
| 1 | Comp App | - | - | - | 2(66.7) | 1(33.3) | - | - | - | 3(100) |
| 2 | Business App | - | 1(100) | - | - | - | - | - | - | 1(100) |
| 3 | DTP | 1(25.0) | 1(25.0) | - | 1(25.0) | - | 1(25.0) | - | - | 4(100) |
| 4 | Home Nursing | - | - | - | - | - | - | 2(100) | - | 2(100) |
| 5 | Refrigeration | - | - | 3(100) | - | - | - | - | - | 3(100) |
| 6 | Beautician | 1(25.0) | - | 3(75.0) | - | - | - | - | - | 4(100) |
| 7 | **Total** | **2(14.3)** | **2(14.3)** | **6(42.9)** | **3(21.4)** | **1(7.1)** | **1(7.1)** | **2(14.3)** | **-** | **17(100)** |
| **F. EDP** | | | | | | | | | |
| 1 | EDP | - | - | - | - | - | - | - | - | (0) |
| 2 | **Total** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **(0)** |
| **G. GHRDC** | | | | | | | | | |
| 1 | GHRSD | - | - | - | - | - | - | - | - | (0) |
| 2 | **Total** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **(0)** |
| **H. TrCPC** | | | | | | | | | |
| 1 | Tailoring, Embroidery | 2(13.3) | 2(13.3) | 3(20.0) | 1(6.7) | - | 2(13.3) | 1(6.7) | 4(26.7) | 15(100) |
| 2 | **Total** | **2(13.3)** | **2(13.3)** | **3(20.0)** | **1(6.7)** | **-** | **2(13.3)** | **1(6.7)** | **4(26.7)** | **15(100)** |
| **I. ApprT** | | | | | | | | | |
| 1 | Diesel Mech. | - | - | 1(100) | - | - | - | - | - | 1(100) |
| 2 | Welder | - | - | - | - | - | - | - | - | (0) |
| 3 | Electrician | - | - | - | - | - | - | - | - | (0) |
| 4 | Lab Asst. | - | - | 2(100) | - | - | - | - | - | 2(100) |
| 5 | CNC | - | - | - | - | | - | - | - | (0) |
| 6 | PLC | - | - | 1(33.3) | - | 1(33.3) | - | 1(33.4) | - | 3(100) |
| 7 | Hotel Mang. | - | - | - | - | - | - | - | - | (0) |
| 8 | Fitter | - | - | - | - | - | - | - | - | (0) |
| 9 | **Total** | **-** | **-** | **4(66.6)** | **-** | **1(16.7)** | **-** | **1(16.7)** | **-** | **6(100)** |
| **J. OITSG** | | | | | | | | | |
| 1 | Agriculture | - | - | - | - | 2(50.0) | - | 2(50.0) | - | 4(100) |
| 2 | Animal Husbandry | 2(15.4) | - | 2(15.4) | 1(7.6) | 4(30.8) | 4(30.8) | - | - | 13(100) |
| 3 | Urban Development | 4(44.5) | 2(22.2) | 1(11.1) | - | 1(11.1) | 1(11.1) | - | - | 9(100) |
| 4 | **Total** | **6(23.3)** | **2(7.7)** | **3(11.5)** | **1(3.8)** | **7(26.9)** | **5(19.2)** | **2(7.7)** | **-** | **26(100)** |
| | **Grand Total** | **14(8.9)** | **22(14.0)** | **51(32.5)** | **12(7.6)** | **18(11.5)** | **18(11.5)** | **13(8.3)** | **9(5.7)** | **157(100)** |

**(Source: Field Work)**

The table 6.7 shows that most of the students were unemployed due to lack of salary (32.5%) followed by unwillingness to join for the job (14.0%), lack of finance and lack of government support (11.5%) each and so on. There were no students responded from NSQF and UNID stream. Most of the vocational students mentioned the reason for unemployed is lack of expected salary i.e. 33.3% followed by unwillingness to join for

the job i.e. 30.0% lack of finance i.e. 20.0%, no confidence to take up job and also start up problem of the business i.e. 16.7% each, lack of government support i.e. 10.0%, unwillingness to start own business i.e. 6.7%and others 13.3%. Majority of ITI students revealed that lack of expected salary i.e. 83.3% is an significant reason for unemployment followed by unwillingness to start own business , no confidence to take up job and some other reasons i.e. 23.3%, 16.7%, 13.3%, 10.0%, 6.7%, 6.7% and 3.3% respectively. The reason of low expected salary was by most of the students from all courses. The HRDFS also said that lack of expected salary i.e. 42.9% is an important reason for unemployment especially students from refrigerator and beautician courses. While other students said they have no confidence to take up job i.e. 21.4%, while 14.3% each said willingness to join for the job and lack of government support whereas 7.1% each stated that lack of finance and start up problem. No students were unemployed in EDP and GHRDC while in case of TrCPC most of them i.e. 20% claimed that they are unemployed due to lack of expected salary whereas 13.3% each due to unwillingness to start business unwillingness to join job and start up problems while 6.7% each due to no confidence to take up job and lack of government support and 26.7% has cited some other reasons. Majority of apprenticeship trainees said they are unemployed due to lack of expected salary i.e. 66.6% and the remaining 16.7% each due to lack of finance and government support. In case of OITSG most of the trainees were unemployed due to lack of finance i.e. 26.9% while 23.3% are unwilling to start their own business, 19.2% due to start up problem, 11.5% due to lack of expected salary, 7.7% each due to lack of government support and unwillingness to join for the job while 3.8% had no confidence to take up job.

It can be interpreted that most of the students/trainees are unemployed due to lack of expected salary which means that the employers do not pay expected salary to the candidates who join for the job. The employers pay low salary which is not convincing to the youth. The candidate's expectations are not fulfilled by the employers whereby they enjoy their service at low cost. The fresh candidates are paid very less as compared to the seniors due to whom students are not willing to join for the job. The other fact cited by the students is due to lack of finance with them if they want to start their own business. Each and every parent feels that their child has completed education but nobody motivate to start any business. Some students said they do not have enough confidence to take up job in the similar field nor they can start their own business because there is lot of startup problems faced by them. It is also important that students do not get support from the government by way of finance or to start their own business.

**6.3 Testing of Hypothesis**

To verify the fourth objective of the study i.e. *to assess the contribution of skill development programmes conducted by various skill training institutes and its impact on employment and self-employment in Goa,* the following null hypothesis was formed;

**H0: I**mpact of Skill development programmes on employment and self-employment is Insignificant.

**H1: Impact of Skill development programmes on employment and self-employment is significant.**

Further three sub-hypothesis were framed and tested with various statistical tools such as *one way ANOVA, Coefficients, Multinomial Logistic Regression and Chi-square test* were used to serve the objective. The below hypothesis were analyzed and tested with reference to their Stream, Trade and reason for joining a course. The data collected from the Past students was grouped into six important areas to find out any impact and association in the following aspects they are;

**1) Self-Employment (Full time)**
**2) Self-Employment (Part time)**
**3) Job-Employment (Full time)**
**4) Job-Employment (Part time)**
**5) Pursuing Higher Education**
**6) Unemployed**

To information was collected on the above area from 624 Past students from all over Goa belonging to High School, Higher Secondary, University Departments, ITI, HRDFS, EDP, GHRDC, Training cum Production Centre, Apprenticeship training institutes and Other initiatives taken by the state government were surveyed. The following sections give the analysis of the data along with the comments based on **one way** *ANOVA and coefficient test*.

**6.3.1 Impact of streams on employment and self employment**

**H01: There is no significant impact of Skill training programmes conducted through various streams on employment and self-employment in Goa.**

**Table 6.8: Table showing cross tabulation of present status of past students (Streams)**

| | | | present status new | | | | Total |
|---|---|---|---|---|---|---|---|
| | | | Self-Employ-ment | Job Employ-ment | Pursuing Higher Education | Unem-ployed | |
| Stream | Hs | Count | 0 | 0 | 33 | 0 | 33 |
| | | % within Stream | 0.0% | 0.0% | 100.0% | 0.0% | 100.0% |
| | | % within present status | 0.0% | 0.0% | 24.6% | 0.0% | 5.3% |
| | HSSC | Count | 14 | 63 | 67 | 29 | 173 |
| | | % within Stream | 8.1% | 36.4% | 38.7% | 16.8% | 100.0% |
| | | % within present status | 15.4% | 21.9% | 50.0% | 26.1% | 27.7% |
| | UNID | Count | 1 | 24 | 0 | 0 | 25 |
| | | % within Stream | 4.0% | 96.0% | 0.0% | 0.0% | 100.0% |
| | | % within present status | 1.1% | 8.3% | 0.0% | 0.0% | 4.0% |
| | ITI | Count | 22 | 96 | 8 | 31 | 157 |
| | | % within Stream | 14.0% | 61.1% | 5.1% | 19.7% | 100.0% |
| | | % within present status | 24.2% | 33.3% | 6.0% | 27.9% | 25.2% |
| | HRDFS | Count | 3 | 33 | 16 | 15 | 67 |
| | | % within Stream | 4.5% | 49.3% | 23.9% | 22.4% | 100.0% |
| | | % within present status | 3.3% | 11.5% | 11.9% | 13.5% | 10.7% |
| | EDP | Count | 0 | 8 | 0 | 0 | 8 |
| | | % within Stream | 0.0% | 100.0% | 0.0% | 0.0% | 100.0% |
| | | % within present status | 0.0% | 2.8% | 0.0% | 0.0% | 1.3% |
| | GHRSDC | Count | 0 | 25 | 0 | 0 | 25 |
| | | % within Stream | 0.0% | 100.0% | 0.0% | 0.0% | 100.0% |
| | | % within present status | 0.0% | 8.7% | 0.0% | 0.0% | 4.0% |
| | TrCPC | Count | 12 | 7 | 4 | 15 | 38 |
| | | % within Stream | 31.6% | 18.4% | 10.5% | 39.5% | 100.0% |
| | | % within present status | 13.2% | 2.4% | 3.0% | 13.5% | 6.1% |
| | APPRT | Count | 5 | 23 | 5 | 5 | 38 |
| | | % within Stream | 13.2% | 60.5% | 13.2% | 13.2% | 100.0% |
| | | % within present status | 5.5% | 8.0% | 3.7% | 4.5% | 6.1% |
| | OITSG | Count | 34 | 9 | 1 | 16 | 60 |
| | | % within Stream | 56.7% | 15.0% | 1.7% | 26.7% | 100.0% |
| | | % within present status | 37.4% | 3.1% | 0.7% | 14.4% | 9.6% |
| Total | | Count | 91 | 288 | 134 | 111 | 624 |
| | | % within Stream | 14.6% | 46.2% | 21.5% | 17.8% | 100.0% |
| | | % within present status | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Table 6.8 depicts the present status of the past students (stream wise) after completing their course. An attempt was made to find whether the past students have started any business or they are going for job anywhere or they pursue further studies. The various options more given to the past students to identify what students do after completion of job to find out how for skill courses have an impact on building students

career and what potential does skill courses have in developing Goa's economy. The various alternatives provided to the past students were whether they carry out "Self employment (full time)", "self employment (part time)", "job employment (full time)", "job employment (part time)", "pursuing higher education", "unemployed" and any other status.

The overall result of the past students in (table 6.8) shows that 46.2% were joined for job employment and 14.6% were self employed whereas 21.5% were pursuing higher education and 17.8% were unemployed. The streams wise past students of HS (NSQF) were pursuing higher education (100%) and none of them have gone for any sort of job employment. In case of vocational studies majority (38.7%) of the students were pursuing higher education (36.4%) as full time & part time job employment whereas (16.8%) were unemployed and only 8.1% took up full time or part time self employment. Hence it can be said that a total of (44.5%) of the past students were employed in the form of self employment and job employment. The UNID students revealed that majority of the students (96%) were employed on job whereas only (4.0%) were self employed. Majority of ITI students are on job employment i.e. 61.1% as full time and part time whereas 19.7% are unemployed, 14.0% are full time and part self employed respectively and 5.1% are pursuing higher education. The HRDFS students said that most of the students have joined for the job employment i.e. 49.3% whereby 23.9% are pursuing higher education, 22.4% are unemployed and rest 4.5% are self employed. The students of EDP and trainees of GHRSDC (100%) have joined for the full time job employment while TrCPC trainees, majority of them are unemployed i.e. 39.5% followed by self employment (31.6%), job employed (18.4%) and 10.5% are pursuing higher education. Apprenticeship trainees mostly i.e. 60.5% have joined for job employment while 13.2% started their own business whereas 13.2% each are unemployed and remaining pursuing higher education. Majority of OITSG trainees (56.7%) are self employed while (26.7%) are unemployed, 15.0% are job employed and 1.7% pursuing further studies. The overall data indicates that majority of the students (46.2%) are employed on job while 21.5% are pursuing higher education, 17.8% are unemployed and 14.6% have started their own business.

It can be interpreted that most of the students are employed on the job mostly from EDP, GHRSDC, UNID, ITI, APPRT and Vocational stream. The other students were pursuing higher studies that were mostly from HS and HSSC whereas few students were self-employed which were mostly from OITSG and TrCPC stream. Apart from

students have joined for the job or accepted some self-employment still some students are unemployed. It is noticed that most of the students who were unemployed were from TrCPC, OITSG HRDFS and HSSC whereby none of the students were unemployed from the streams such as HS, UNID, EDP and HRDFS. The NSQF students like to pursue higher education only whereas vocational students are more interested in pursuing higher education followed by job employment and few has started their own business. It indicates that most of the students after $X^{th}$ and $XII^{th}$ standard like to go for higher studies and not interested in self employment either full time or part time which means at this stage chances of starting their own business is very negligible. Most of the UNID students joined for the job and few were self-employed where as majority of TrCPC and OITSG had started their self-employment.

**Table 6.9: Table showing ANOVA-value for fitment model (Stream)**

| Model | | Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| | Regression | 114.255 | 1 | 114.255 | 50.106 | .000[b] |
| 1 | Residual | 1418.335 | 622 | 2.280 | | |
| | Total | 1532.590 | 623 | | | |
| a. Dependent Variable: Present Status of the respondents | | | | | | |
| b. Predictors: (Constant), Stream | | | | | | |

**Table 6.10: Table showing Coefficients-values for impact on employment (Stream)**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 4.437 | .117 | | 37.784 | .000 |
| | Stream | -.154 | .022 | -.273 | -7.079 | **.000** |
| a. Dependent Variable: Present Status of the respondents | | | | | | |

**Table 6.11: Table showing ANOVA-values for fitment model (Stream)**

| present status new | Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|---|
| | | Regression | 5.036 | 1 | 5.036 | 47.666 | .000[b] |
| Self-Employment | 1 | Residual | 9.403 | 89 | .106 | | |
| | | Total | 14.440 | 90 | | | |
| | | Regression | .325 | 1 | .325 | 6.695 | .010[b] |
| Job Employment | 1 | Residual | 13.894 | 286 | .049 | | |
| | | Total | 14.219 | 287 | | | |
| a. Dependent Variable: Present Status of the respondents | | | | | | | |
| b. Predictors: (Constant), Stream | | | | | | | |

**Table 6.12: Table showing Coefficients-value for impact on job employment and self-employment (Stream)**

| present status new | Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
|---|---|---|---|---|---|---|---|
| | | | B | Std. Error | Beta | | |
| Self-Employment | 1 | (Constant) | 1.701 | .080 | | 21.144 | .000 |
| | | Stream | -.074 | .011 | -.591 | -6.904 | **.000** |
| Job Employment | 1 | (Constant) | 3.120 | .029 | | 106.187 | .000 |
| | | Stream | -.015 | .006 | -.151 | -2.587 | **.010** |
| a. Dependent Variable: Present Status of the respondents | | | | | | | |

**Table 6.13: Table showing multinomial Logistic Regression (Streams)**

| Present Status of the respondents[a] | | B | Std. Error | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|
| Self-Employment (Full Time) | Intercept | .754 | .303 | 1 | .013 | |
| | HS | **-1.173** | 1005.558 | 1 | .999 | .309 |
| | HSS | -3.022 | .678 | 1 | **.000** | **.049** |
| | UNID | 11.599 | 481.217 | 1 | .981 | 108973.456 |
| | ITI | -1.415 | .432 | 1 | **.001** | **.243** |
| | HRDFS | -2.363 | .701 | 1 | **.001** | **.094** |
| | EDP | -1.173 | 955.860 | 1 | .999 | .309 |
| | GHRSDC | -1.173 | 540.716 | 1 | .998 | .309 |
| | TRCPC | -1.064 | .499 | 1 | **.033** | **.345** |
| | APPRT | -.754 | .701 | 1 | .282 | .471 |
| | OITSG | 0[c] | . | 0 | . | . |
| Self-Employment (Part Time) | Intercept | -21.667 | 12672.370 | 1 | .999 | |
| | HS | 19.848 | 12785.302 | 1 | .999 | 416663033.475 |
| | HSS | 20.698 | 12672.370 | 1 | .999 | 974608359.911 |
| | UNID | 19.848 | 12737.682 | 1 | .999 | 416663033.488 |
| | ITI | 20.025 | 12672.370 | 1 | .999 | 497307491.567 |
| | HRDFS | 7.070 | 12678.114 | 1 | 1.000 | 1176.351 |
| | EDP | 19.848 | 12774.459 | 1 | .999 | 416663033.475 |
| | GHRSDC | 19.848 | 12705.128 | 1 | .999 | 416663033.475 |
| | TRCPC | 18.959 | 12672.370 | 1 | .999 | 171294802.651 |
| | APPRT | 7.588 | 12682.637 | 1 | 1.000 | 1974.084 |
| | OITSG | 0[c] | . | 0 | . | . |
| Job Employment (Full Time) | Intercept | -.575 | .417 | 1 | .167 | |
| | HS | 1.475 | 751.180 | 1 | .998 | 4.372 |
| | HSS | 1.215 | .476 | 1 | **.011** | **3.372** |
| | UNID | 15.973 | 481.216 | 1 | .974 | 8645227.502 |
| | ITI | 1.685 | .465 | 1 | **.000** | **5.391** |
| | HRDFS | 1.333 | .521 | 1 | **.011** | **3.793** |
| | EDP | 15.456 | 602.070 | 1 | .980 | 5155376.671 |
| | GHRSDC | 15.456 | 340.582 | 1 | .964 | 5155376.671 |
| | TRCPC | -.187 | .619 | 1 | .763 | .830 |
| | APPRT | 2.057 | .647 | 1 | **.001** | **7.822** |
| | OITSG | 0[c] | . | 0 | . | . |
| Job Employment (Part Time) | Intercept | -21.849 | 1.095 | 1 | .000 | |
| | HS | 19.848 | 1835.689 | 1 | .991 | 416663040.736 |
| | HSS | 20.561 | 1.166 | 1 | **.000** | **850567310.745** |
| | UNID | 35.301 | 481.217 | 1 | .942 | 2141990852416704.200 |
| | ITI | 19.108 | 1.316 | 1 | **.000** | **198923000.094** |
| | HRDFS | 19.141 | 1.506 | 1 | **.000** | **205553766.763** |
| | EDP | 19.848 | 1744.964 | 1 | .991 | 416663040.736 |
| | GHRSDC | 19.848 | 987.101 | 1 | .984 | 416663040.736 |
| | TRCPC | 6.117 | 673.320 | 1 | .993 | 453.402 |
| | APPRT | 20.240 | .000 | 1 | . | 616661300.290 |
| | OITSG | 0[c] | . | 0 | . | . |

The *cross tabulation table* (6.8) indicates that there is a significant impact on job employment as well as self-employment. The *One way ANOVA* (table 6.9) shows that the model fitted for present status of the respondents with respect to the streams is significant (0.000). The Coefficients value (table 6.10) shows that $t$ value is 37.784 and it corresponding sig. $p$ value is 0.000 which less than 0.05 at 5% level of significance which makes it clear that there is a significant impact of Skill development programmes conducted through various streams and present status of past students i.e. on employment (job and self-employment) in the state of Goa.

The ***cross tabulation table*** (6.8) indicates that there is a high impact on job employment (full time employment or time employment) as compared to self-employment. The ***One way ANOVA*** (table 6.11) shows that the model fitted for present status of the respondents self employment and job employment with respect to streams is significant (0.000 and 0.010) respectively. The ***Coefficients value*** (table 6.12) for both self-employment and job employment shows that *t* value is -6.904 and -2.587 and its corresponding value is significant (*p* is .000 and .010) respectively which less than 0.05 at 5% level of significance. It means that there is a high significant impact of Skill development programmes on job employment as compared to self-employment in the state of Goa.

The ***multinomial logistic regression*** test (6.13) stream wise shows a significant impact of skill development programmes on self employment. The streams such as HSS (0.000), ITI (0.001), HRDFS (0.001) and TRCPC (0.033) over OITSG has more impact on full time self-employment which is taken as a base to test impact on various streams as far as full time Self-employment is concern. No impact is noticed on part time self-employment of any stream.

So also it makes clear that there is a significant impact of skill development programmes on streams on job employment like HSS (.011), ITI (.000), HRDFS (.011) and ApprT (.001) on full time job employment as compared to OITSG whereas HSS (.000), ITI (.000) and HRDFS (.000) shows impact on part time job employment. It means that past students from streams like HSS, ITI, HRDFS, TRCPC and OITSG have started their self-employment business whereas of HSS, ITI, HRDFS and ApprT have joined for full time job employment as well as part time job employment, **thus the null hypothesis is rejected.**

**6.3.2 Impact of Trades on employment and Self-employment**

**H02: There is no significant impact of Skill training programmes conducted through various trades on employment and self-employment in Goa.**

**Table 6.14: Table showing Cross tabulation of present status of past students (Trades)**

| | | | Present Status of the respondents | | | | | | Total |
|---|---|---|---|---|---|---|---|---|---|
| | | | Self-Employment (Full Time) | Self-Employment (Part Time) | Job Employment (Full Time) | Job Employment (Part Time) | Pursuing Higher Education | Unemployed | |
| Trade | IT | Count | 0 | 0 | 0 | 0 | 12 | 0 | 12 |
| | | % within Trade | 0.0% | 0.0% | 0.0% | 0.0% | 100.0% | 0.0% | 100.0% |
| | | % of Total | 0.0% | 0.0% | 0.0% | 0.0% | 1.9% | 0.0% | 1.9% |
| | Healthcare | Count | 0 | 0 | 0 | 0 | 8 | 0 | 8 |
| | | % within Trade | 0.0% | 0.0% | 0.0% | 0.0% | 100.0% | 0.0% | 100.0% |
| | | % of Total | 0.0% | 0.0% | 0.0% | 0.0% | 1.3% | 0.0% | 1.3% |
| | Automobile | Count | 0 | 0 | 0 | 0 | 8 | 0 | 8 |
| | | % within Trade | 0.0% | 0.0% | 0.0% | 0.0% | 100.0% | 0.0% | 100.0% |
| | | % of Total | 0.0% | 0.0% | 0.0% | 0.0% | 1.3% | 0.0% | 1.3% |
| | Retail | Count | 0 | 0 | 0 | 0 | 5 | 0 | 5 |
| | | % within Trade | 0.0% | 0.0% | 0.0% | 0.0% | 100.0% | 0.0% | 100.0% |
| | | % of Total | 0.0% | 0.0% | 0.0% | 0.0% | 0.8% | 0.0% | 0.8% |
| | Catering & Restaurant Management | Count | 0 | 0 | 7 | 0 | 3 | 6 | 16 |
| | | % within Trade | 0.0% | 0.0% | 43.8% | 0.0% | 18.8% | 37.5% | 100.0% |
| | | % of Total | 0.0% | 0.0% | 1.1% | 0.0% | 0.5% | 1.0% | 2.6% |
| | Office Secretary ship Stenography | Count | 1 | 1 | 11 | 0 | 21 | 2 | 36 |
| | | % within Trade | 2.8% | 2.8% | 30.6% | 0.0% | 58.3% | 5.6% | 100.0% |
| | | % of Total | 0.2% | 0.2% | 1.8% | 0.0% | 3.4% | 0.3% | 5.8% |
| | Auto Engineering Technology | Count | 0 | 2 | 6 | 2 | 4 | 2 | 16 |
| | | % within Trade | 0.0% | 12.5% | 37.5% | 12.5% | 25.0% | 12.5% | 100.0% |
| | | % of Total | 0.0% | 0.3% | 1.0% | 0.3% | 0.6% | 0.3% | 2.6% |
| | Commercial Garments Designing and Making | Count | 1 | 1 | 2 | 0 | 6 | 2 | 12 |
| | | % within Trade | 8.3% | 8.3% | 16.7% | 0.0% | 50.0% | 16.7% | 100.0% |
| | | % of Total | 0.2% | 0.2% | 0.3% | 0.0% | 1.0% | 0.3% | 1.9% |
| | Insurance | Count | 1 | 5 | 12 | 1 | 12 | 5 | 36 |
| | | % within Trade | 2.8% | 13.9% | 33.3% | 2.8% | 33.3% | 13.9% | 100.0% |
| | | % of Total | 0.2% | 0.8% | 1.9% | 0.2% | 1.9% | 0.8% | 5.8% |
| | Accountancy and Auditing | Count | 0 | 0 | 1 | 1 | 8 | 0 | 10 |
| | | % within Trade | 0.0% | 0.0% | 10.0% | 10.0% | 80.0% | 0.0% | 100.0% |
| | | % of Total | 0.0% | 0.0% | 0.2% | 0.2% | 1.3% | 0.0% | 1.6% |
| | Marketing and Salesmanship | Count | 0 | 1 | 1 | 2 | 1 | 2 | 7 |
| | | % within Trade | 0.0% | 14.3% | 14.3% | 28.6% | 14.3% | 28.6% | 100.0% |
| | | % of Total | 0.0% | 0.2% | 0.2% | 0.3% | 0.2% | 0.3% | 1.1% |
| | Computer technique | Count | 0 | 1 | 11 | 1 | 9 | 6 | 28 |
| | | % within Trade | 0.0% | 3.6% | 39.3% | 3.6% | 32.1% | 21.4% | 100.0% |
| | | % of Total | 0.0% | 0.2% | 1.8% | 0.2% | 1.4% | 1.0% | 4.5% |
| | Travel and Tourism | Count | 0 | 0 | 4 | 1 | 3 | 4 | 12 |
| | | % within Trade | 0.0% | 0.0% | 33.3% | 8.3% | 25.0% | 33.3% | 100.0% |
| | | % of Total | 0.0% | 0.0% | 0.6% | 0.2% | 0.5% | 0.6% | 1.9% |
| | Master of computer Application | Count | 1 | 0 | 13 | 0 | 0 | 0 | 14 |
| | | % within Trade | 7.1% | 0.0% | 92.9% | 0.0% | 0.0% | 0.0% | 100.0% |
| | | % of Total | 0.2% | 0.0% | 2.1% | 0.0% | 0.0% | 0.0% | 2.2% |
| | Master of Financial Services | Count | 0 | 0 | 8 | 3 | 0 | 0 | 11 |
| | | % within Trade | 0.0% | 0.0% | 72.7% | 27.3% | 0.0% | 0.0% | 100.0% |
| | | % of Total | 0.0% | 0.0% | 1.3% | 0.5% | 0.0% | 0.0% | 1.8% |
| | Electrician | Count | 2 | 0 | 13 | 1 | 0 | 1 | 17 |
| | | % within Trade | 11.8% | 0.0% | 76.5% | 5.9% | 0.0% | 5.9% | 100.0% |
| | | % of Total | 0.3% | 0.0% | 2.1% | 0.2% | 0.0% | 0.2% | 2.7% |
| | Computer Operating Programming Assistant | Count | 0 | 0 | 7 | 0 | 0 | 4 | 11 |
| | | % within Trade | 0.0% | 0.0% | 63.6% | 0.0% | 0.0% | 36.4% | 100.0% |
| | | % of Total | 0.0% | 0.0% | 1.1% | 0.0% | 0.0% | 0.6% | 1.8% |
| | Plumber | Count | 6 | 2 | 25 | 0 | 1 | 6 | 40 |
| | | % within Trade | 15.0% | 5.0% | 62.5% | 0.0% | 2.5% | 15.0% | 100.0% |
| | | % of Total | 1.0% | 0.3% | 4.0% | 0.0% | 0.2% | 1.0% | 6.4% |
| | Welder | Count | 2 | 1 | 6 | 0 | 0 | 3 | 12 |
| | | % within Trade | 16.7% | 8.3% | 50.0% | 0.0% | 0.0% | 25.0% | 100.0% |
| | | % of Total | 0.3% | 0.2% | 1.0% | 0.0% | 0.0% | 0.5% | 1.9% |
| | Fitter | Count | 2 | 0 | 11 | 0 | 0 | 2 | 15 |
| | | % within Trade | 13.3% | 0.0% | 73.3% | 0.0% | 0.0% | 13.3% | 100.0% |
| | | % of Total | 0.3% | 0.0% | 1.8% | 0.0% | 0.0% | 0.3% | 2.4% |
| | Diesel Mechanic | Count | 0 | 1 | 5 | 0 | 1 | 7 | 14 |
| | | % within Trade | 0.0% | 7.1% | 35.7% | 0.0% | 7.1% | 50.0% | 100.0% |
| | | % of Total | 0.0% | 0.2% | 0.8% | 0.0% | 0.2% | 1.1% | 2.2% |

| Trade | | | | | | | | Total |
|---|---|---|---|---|---|---|---|---|
| Hotel Management | Count | 2 | 1 | 22 | 1 | 1 | 5 | 32 |
| | % within Trade | 6.2% | 3.1% | 68.8% | 3.1% | 3.1% | 15.6% | 100.0% |
| | % of Total | 0.3% | 0.2% | 3.5% | 0.2% | 0.2% | 0.8% | 5.1% |
| Electronic Mechanic | Count | 2 | 1 | 5 | 0 | 5 | 3 | 16 |
| | % within Trade | 12.5% | 6.2% | 31.2% | 0.0% | 31.2% | 18.8% | 100.0% |
| | % of Total | 0.3% | 0.2% | 0.8% | 0.0% | 0.8% | 0.5% | 2.6% |
| Computer Application | Count | 0 | 0 | 0 | 0 | 9 | 1 | 10 |
| | % within Trade | 0.0% | 0.0% | 0.0% | 0.0% | 90.0% | 10.0% | 100.0% |
| | % of Total | 0.0% | 0.0% | 0.0% | 0.0% | 1.4% | 0.2% | 1.6% |
| Business Application | Count | 0 | 0 | 4 | 0 | 7 | 2 | 13 |
| | % within Trade | 0.0% | 0.0% | 30.8% | 0.0% | 53.8% | 15.4% | 100.0% |
| | % of Total | 0.0% | 0.0% | 0.6% | 0.0% | 1.1% | 0.3% | 2.1% |
| Desktop operator | Count | 2 | 0 | 10 | 1 | 0 | 4 | 17 |
| | % within Trade | 11.8% | 0.0% | 58.8% | 5.9% | 0.0% | 23.5% | 100.0% |
| | % of Total | 0.3% | 0.0% | 1.6% | 0.2% | 0.0% | 0.6% | 2.7% |
| Home Nursing | Count | 0 | 0 | 10 | 0 | 0 | 0 | 10 |
| | % within Trade | 0.0% | 0.0% | 100.0% | 0.0% | 0.0% | 0.0% | 100.0% |
| | % of Total | 0.0% | 0.0% | 1.6% | 0.0% | 0.0% | 0.0% | 1.6% |
| Air condition/refrigerator mechanic | Count | 0 | 0 | 5 | 0 | 0 | 4 | 9 |
| | % within Trade | 0.0% | 0.0% | 55.6% | 0.0% | 0.0% | 44.4% | 100.0% |
| | % of Total | 0.0% | 0.0% | 0.8% | 0.0% | 0.0% | 0.6% | 1.4% |
| Beautician | Count | 1 | 0 | 3 | 0 | 0 | 4 | 8 |
| | % within Trade | 12.5% | 0.0% | 37.5% | 0.0% | 0.0% | 50.0% | 100.0% |
| | % of Total | 0.2% | 0.0% | 0.5% | 0.0% | 0.0% | 0.6% | 1.3% |
| Entrepreneurship Development | Count | 0 | 0 | 8 | 0 | 0 | 0 | 8 |
| | % within Trade | 0.0% | 0.0% | 100.0% | 0.0% | 0.0% | 0.0% | 100.0% |
| | % of Total | 0.0% | 0.0% | 1.3% | 0.0% | 0.0% | 0.0% | 1.3% |
| Security Guards | Count | 0 | 0 | 25 | 0 | 0 | 0 | 25 |
| | % within Trade | 0.0% | 0.0% | 100.0% | 0.0% | 0.0% | 0.0% | 100.0% |
| | % of Total | 0.0% | 0.0% | 4.0% | 0.0% | 0.0% | 0.0% | 4.0% |
| Tailoring &Embroidary | Count | 11 | 1 | 7 | 0 | 4 | 15 | 38 |
| | % within Trade | 28.9% | 2.6% | 18.4% | 0.0% | 10.5% | 39.5% | 100.0% |
| | % of Total | 1.8% | 0.2% | 1.1% | 0.0% | 0.6% | 2.4% | 6.1% |
| Diesel Mechanic | Count | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| | % within Trade | 0.0% | 0.0% | 50.0% | 0.0% | 0.0% | 50.0% | 100.0% |
| | % of Total | 0.0% | 0.0% | 0.2% | 0.0% | 0.0% | 0.2% | 0.3% |
| Welder | Count | 0 | 0 | 4 | 0 | 0 | 0 | 4 |
| | % within Trade | 0.0% | 0.0% | 100.0% | 0.0% | 0.0% | 0.0% | 100.0% |
| | % of Total | 0.0% | 0.0% | 0.6% | 0.0% | 0.0% | 0.0% | 0.6% |
| Electrician | Count | 1 | 0 | 4 | 0 | 0 | 0 | 5 |
| | % within Trade | 20.0% | 0.0% | 80.0% | 0.0% | 0.0% | 0.0% | 100.0% |
| | % of Total | 0.2% | 0.0% | 0.6% | 0.0% | 0.0% | 0.0% | 0.8% |
| Lab Assistant | Count | 0 | 0 | 1 | 1 | 4 | 1 | 7 |
| | % within Trade | 0.0% | 0.0% | 14.3% | 14.3% | 57.1% | 14.3% | 100.0% |
| | % of Total | 0.0% | 0.0% | 0.2% | 0.2% | 0.6% | 0.2% | 1.1% |
| Computer Numerical Control operator | Count | 1 | 0 | 6 | 0 | 1 | 1 | 9 |
| | % within Trade | 11.1% | 0.0% | 66.7% | 0.0% | 11.1% | 11.1% | 100.0% |
| | % of Total | 0.2% | 0.0% | 1.0% | 0.0% | 0.2% | 0.2% | 1.4% |
| PLC System operator | Count | 1 | 0 | 2 | 0 | 0 | 2 | 5 |
| | % within Trade | 20.0% | 0.0% | 40.0% | 0.0% | 0.0% | 40.0% | 100.0% |
| | % of Total | 0.2% | 0.0% | 0.3% | 0.0% | 0.0% | 0.3% | 0.8% |
| Hotel Management | Count | 1 | 0 | 3 | 0 | 0 | 0 | 4 |
| | % within Trade | 25.0% | 0.0% | 75.0% | 0.0% | 0.0% | 0.0% | 100.0% |
| | % of Total | 0.2% | 0.0% | 0.5% | 0.0% | 0.0% | 0.0% | 0.6% |
| Fitter | Count | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| | % within Trade | 50.0% | 0.0% | 50.0% | 0.0% | 0.0% | 0.0% | 100.0% |
| | % of Total | 0.2% | 0.0% | 0.2% | 0.0% | 0.0% | 0.0% | 0.3% |
| Agriculture training | Count | 20 | 0 | 0 | 0 | 0 | 0 | 20 |
| | % within Trade | 100.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 100.0% |
| | % of Total | 3.2% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 3.2% |
| Stockman training | Count | 10 | 0 | 3 | 0 | 0 | 7 | 20 |
| | % within Trade | 50.0% | 0.0% | 15.0% | 0.0% | 0.0% | 35.0% | 100.0% |
| | % of Total | 1.6% | 0.0% | 0.5% | 0.0% | 0.0% | 1.1% | 3.2% |
| Tailoring & Food Processing | Count | 4 | 0 | 6 | 0 | 1 | 9 | 20 |
| | % within Trade | 20.0% | 0.0% | 30.0% | 0.0% | 5.0% | 45.0% | 100.0% |
| | % of Total | 0.6% | 0.0% | 1.0% | 0.0% | 0.2% | 1.4% | 3.2% |
| Total | Count | 73 | 18 | 273 | 15 | 134 | 111 | 624 |
| | % within Trade | 11.7% | 2.9% | 43.8% | 2.4% | 21.5% | 17.8% | 100.0% |
| | % of Total | 11.7% | 2.9% | 43.8% | 2.4% | 21.5% | 17.8% | 100.0% |

Table 6.14 shows that the present status of the past students (trade wise) after completing their courses. An attempt was made to find whether the past students from various trades are employed, continued further studies or unemployed. The various alternatives provided to the past students were whether they do "Self employment (full time)", "self employment (part time)", "job employment (full time)", "job employment (part time)", "pursuing higher education", "unemployed" and any other.

The overall result of the past students in (table 6.14) shows that 43.8% and 2.4% were joined for job employment (full time and part time respectively) whereas 11.7% and 2.9% were self employed (full time and part time respectively) while 21.5% were pursuing higher education and 17.8% were unemployed. The above table also indicates that 100% of IT, Healthcare, Automobile, and Retail students of HS have joined for higher studies. Most of the students from catering course have gone for job employment (43.8%) followed by unemployment (37.5%) and the rest of the students are pursuing higher studies (18.8%), while majority of OSS students were pursuing higher education i.e. 58.3% whereas remaining were employed on job i.e. 30.6%, self employed (5.6%) and unemployed 5.6%). The students of Auto engineering technology were mostly on job employment (50%) and the remaining students pursuing higher education and self employed i.e. 25% and 12.5% respectively while 12.5% were unemployed. Most of CGDM are pursuing higher education i.e. 50.0% followed by job employment i.e. 16.7%, self employment 16.6% and the rest of the students i.e. 16.7% were unemployed. Insurance students mostly (36.1%) are doing job whereas 16.7% are self-employed while 33.3% are pursuing higher education and 13.9% are unemployed. The Accounting & Auditing students are 80% pursuing higher education and 20% are employed on job. Most of the marketing & salesmanship students are job employed i.e. 42.9% whereas 28.6% are unemployed and 14.3% each are pursuing higher education and doing own business. Computer techniques students are mostly job employed i.e. 42.9% while 32.1% are continuing education whereas 21.4% are unemployed and 3.6% self-employed. Most of travel and tourism students are employed on job i.e. 41.6% while 33.3% and 25% were unemployed and pursuing higher education. Most of the UNID stream of MCA students i.e. 92.9% are on full time job employment and rest 7.1% are self employment while majority of MFS students (72.7%) are employed on full time basis and remaining on part time job i.e. 27.3%. The two courses shown no much difference since most of the MCA and MFS students are employed on full time job. Few students are self-employed from MCA and none in MFS.

Most of the students from all courses of ITI are on job employment i.e. electrician (82.4%), COPA (63.6%), plumber (62.5%), Welder (50.0%), fitter (73.3%) and hotel management (68.8%) except students from diesel mechanic (50.0%) and electronic mechanic (31.2%) are unemployed and pursuing higher education respectively. The Majority of DTPO, home nursing, refrigerator are going for job i.e. 64.7%, 100% and 55.6% respectively while computer application, business application i.e. 90% and 53.8% are pursuing higher studies and only beautician students are 50% unemployed, 37.5% job employed and 12.5% self-employed. The trainees from EDP and Security guards (100%) joined for the full time employment while trainees from tailoring and embroidery of TrCPC are unemployed i.e. 39.5% followed by self employed (31.5%), job employed (18.4%) and 10.5% were pursuing higher education. The data of Apprenticeship training shows that most of the trainees of diesel mechanic 50% are job employed and 50% are unemployed while welder 100% job employed. The trainees of electrician 80%-40%, Hotel management 75%-25% and fitter 50%-50% are self employed and job employed respectively. Most of the Lab Assistant are pursuing higher education i.e. 57.1% while CNC are employed on job i.e. 66.7% and PLC are unemployed 40% each unemployed and doing job respectively. The trainees of OITSG from agriculture 100% and 50% of animal husbandry are self employed while urban development (45%) is unemployed.

The course wise interpretation reveals that all 100% of NSQF students have gone for higher studies while majority of vocational students from catering, automobile engineering, marketing & salesmanship, computer techniques and travel and tourism have joined for full time or part time job employment. The students of MCA and MFS have joined for job employment and hardly one students of MCA has started his own business. It means that those students who acquire higher degree are more interested in joining for the job and doing self employment is very negligible. Most of the students from ITI are doing job either full time or part time job. Out of the job employment most them are on full time employment and part time are very negligible. Most of them going for are student from job electrician, plumber and fitter. An another group of students are still unemployed which are mostly from course like diesel mechanic and electronic mechanic which means that diesel mechanic students do not get jobs in Goa. It might be because there are less auto dealers or no manufacturing unit in Goa. There is a similar situation in case of electronic mechanic that the demand for electronics is less in Goa. An equal and good number of students from electronic mechanic course are employed for job and pursuing higher education. It shows that majority of the students from ITI have not

joined for self-employment. It means that still ITI students are not ready to accept self employment. The HRDFS students are also mostly going for job but majority are full time and very tiny number of students are on part time basis which is followed by pursuing higher education, unemployed and very few are self employed. The majority of students accepted jobs are DTP, home nursing and refrigerator. It means that the students from three different courses get jobs easily specially in case of Home Nursing all the students joined for the job or doing their own business. The DTP and refrigerator students have shown mixed response and even some students are unemployed. The students who have opted for computer application and business application are mostly joined for higher studies. These students can opt for similar subjects in commerce stream and other courses for higher education. It is important to note that half of students from business course are unemployed and half are joined for job. No students of beautician course have started their own business even though there are lots of opportunities to start their own beauty parlours by which they can become self employed. Majority of the students from EDP, GHRDC, Apprenticeship training have joined for the job unemployment which means there is a good demand for the students who passed out from those courses while trainees of tailoring and embroidery from TrCPC are unemployed and OITSG are self employed.

**Table 6.15: Table showing ANOVA-value for fitment model (Trade)**

| Model | | Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 113.390 | 1 | 113.390 | 49.696 | **.000** |
| | Residual | 1419.200 | 622 | 2.282 | | |
| | Total | 1532.590 | 623 | | | |
| a. Dependent Variable: Present Status of the respondents | | | | | | |
| b. Predictors: (Constant), Trade | | | | | | |

**Table 6.16: Table showing Coefficients-value for impact on employment (Trade)**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 4.471 | .122 | | 36.654 | .000 |
| | Trades | -.036 | .005 | -.272 | -7.050 | **.000** |
| a. Dependent Variable: Present Status of the respondents | | | | | | |

**Table 6.17: Table showing ANOVA-value for fitment model (Trade)**

| present status | Model | | Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|---|
| Self-Employment | 1 | Regression | 5.197 | 1 | 5.197 | 50.041 | **.000** |
| | | Residual | 9.243 | 89 | .104 | | |
| | | Total | 14.440 | 90 | | | |
| Job Employment | 1 | Regression | .322 | 1 | .322 | 6.623 | **.011** |
| | | Residual | 13.897 | 286 | .049 | | |
| | | Total | 14.219 | 287 | | | |
| a. Dependent Variable: Present Status of the respondents | | | | | | | |
| b. Predictors : (Constant), Trade | | | | | | | |

**Table 6.18: Table showing Coefficients-value for impact on job employment and self-employment (Trade)**

| present status new | Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
|---|---|---|---|---|---|---|---|
| | | | B | Std. Error | Beta | | |
| Self-Employment | 1 | (Constant) | 1.752 | .085 | | 20.536 | .000 |
| | | Trade | -.019 | .003 | -.600 | -7.074 | **.000** |
| Job Employment | 1 | (Constant) | 3.126 | .031 | | 99.404 | .000 |
| | | Trade | -.003 | .001 | -.150 | -2.573 | **.011** |
| a. Dependent Variable: Present Status of the respondents | | | | | | | |

**Table 6.19: Table showing multinomial Logistic Regression (Trade)**

| Present Status of the respondents[a] | | B | Std. Error | Df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|
| Self-Employment (Full Time) | Intercept | -1.212 | .634 | 1 | .056 | |
| | [Q9=11] | -71.232 | .000 | 1 | . | 1.160E-031 |
| | [Q9=15] | .793 | .000 | 1 | . | 2.209 |
| | [Q9=42] | 2.957 | .914 | 1 | **.001** | 19.238 |
| | [Q9=43] | 0[b] | . | 0 | . | . |
| Self-Employment (Part Time) | Intercept | -4.400 | 2.758 | 1 | .111 | |
| | [Q9=7] | 6.052 | 3.034 | 1 | **.046** | 425.143 |
| | [Q9=9] | 6.493 | 2.840 | 1 | **.022** | 660.607 |
| | [Q9=11] | -56.845 | .000 | 1 | . | 2.055E-025 |
| | [Q9=15] | 2.581 | .000 | 1 | . | 13.211 |
| | [Q9=43] | 0[b] | . | 0 | . | . |
| Job Employment (Full Time) | Intercept | -.907 | .566 | 1 | .109 | |
| | [Q9=6] | 2.228 | .994 | 1 | **.025** | 9.280 |
| | [Q9=11] | -18.420 | .000 | 1 | . | 1.001E-008 |
| | [Q9=14] | 3.998 | 1.500 | 1 | **.008** | 54.511 |
| | [Q9=16] | 3.240 | 1.126 | 1 | **.004** | 25.525 |
| | [Q9=18] | 2.389 | .741 | 1 | **.001** | 10.900 |
| | [Q9=20] | 2.726 | 1.001 | 1 | **.006** | 15.265 |
| | [Q9=22] | 2.493 | .772 | 1 | **.001** | 12.096 |
| | [Q9=26] | 1.829 | .843 | 1 | **.030** | 6.227 |
| | [Q9=27] | 4.164 | 1.829 | 1 | **.023** | 64.315 |
| | [Q9=30] | 4.164 | 2.025 | 1 | **.040** | 64.315 |
| | [Q9=31] | 4.164 | 1.237 | 1 | **.001** | 64.315 |
| | [Q9=37] | 2.706 | 1.229 | 1 | **.028** | 14.971 |
| | [Q9=43] | 0[b] | . | 0 | . | . |
| Job employment (part time) | Intercept | -4.583 | 3.018 | 1 | .129 | |
| | [Q9=7] | 6.904 | 3.253 | 1 | **.034** | 995.933 |
| | [Q9=36] | 7.433 | 3.624 | 1 | **.040** | 1690.819 |
| | [Q9=43] | 0[b] | . | 0 | . | . |

The **One way *ANOVA test*** (table 6.15) is significant (0.000) which shows that the model is fitted for present status of the respondents with respect to trades. The **Coefficients value** (6.16) shows that *t* value is 36.654 and it corresponding *P* value is 0.000 which less than 0.05 at 5% level of significance. The coefficient table clearly indicates that there exist a significant impact of Skill training programmes conducted through various trades and the present status of the past students (employment and self-employment) in the state of Goa.

The **One way *ANOVA test*** (table 6.17) is significant (0.000 and 0.011) which shows that the model is fitted for present status of the respondents (self employment and job employment) with respect to trades respectively.

The **Coefficients value** (6.18) for both self-employment and job employment shows significant (*p* value is .000 and .011) respectively which less than 0.05 at 5% level of significance which indicates that there is a significant impact of trades on self-employment as well on job employment.

The **multinomial logistic regression** (table 6.19) shows the trade wise impact on employment and self-employment which indicates that there is a significant impact of trades like livestock training (P value = .001) on fulltime employment and Automobile (P value =.046) on Part time self-employment. So also there is a high significant impact of various trades on full time employment like OSS (.025). MCA (.008), Electrician (.004), Plumber (.001), Fitter (.006) Hotel management (.001), DTPO (.030), Home Nursing (.023), EDP (.040), Security Guards (.001), CNC operator (.028) and courses such as welder (.034) and fitter (.040) on part time job employment. **Thus the null hypothesis is rejected.**

### 6.3.3 Reason for Joining and employability

An attempt was made in table to find the reason behind joining for the course from past students of different streams. Each and every student has their different intention while joining for the course. The researcher made an attempt to understand their purpose of joining for the course. The purpose of each and every student is different based on their likings, their future career, past friends from lower classes, place of education, campus of institution, travelling distance to the institution, transport facility available, etc. The Students were given 4 options to select for which the student has joined for the course. The various options are "Scope for self-employment", "Scope for job", "Scope for Higher Education" and any other reason. The objective was to know whether students had opted for a particular course because of starting their own business, whether they want to go for job or after completing a course they want to join higher studies and last option was kept open to know their purpose apart from the options offered. Those other reasons expected by the researcher could be they do not like the course or they do not like general stream or they didn't get admission for other course etc. The various reasons disclosed by the past students are shown in the above table as follows:-

**H03: There is no significant association between reason for joining and employability of past students in Goa**.

**Table 6.20: Table showing cross tabulation of present status and reason for joining**

| Present Status of the respondents * Reason for joining the Course  Cross tabulation | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | Reason for joining the Corse | | | | Total |
| | | | Scope for Self-Employment | Scope for Job | Scope for Higher Education | Others | |
| Present Status of the respondents | Self-Employment (Full Time) | Count | 57 | 15 | 1 | 0 | 73 |
| | | % within Present Status of the respondents | 78.1% | 20.5% | 1.4% | 0.0% | 100.0% |
| | | % of Total | 9.1% | 2.4% | 0.2% | 0.0% | 11.7% |
| | Self-Employment (Part Time) | Count | 7 | 5 | 6 | 0 | 18 |
| | | % within Present Status of the respondents | 38.9% | 27.8% | 33.3% | 0.0% | 100.0% |
| | | % of Total | 1.1% | 0.8% | 1.0% | 0.0% | 2.9% |
| | Job Employment (Full Time) | Count | 41 | 211 | 16 | 5 | 273 |
| | | % within Present Status of the respondents | 15.0% | 77.3% | 5.9% | 1.8% | 100.0% |
| | | % of Total | 6.6% | 33.8% | 2.6% | 0.8% | 43.8% |
| | Job Employment (Part Time) | Count | 2 | 9 | 4 | 0 | 15 |
| | | % within Present Status of the respondents | 13.3% | 60.0% | 26.7% | 0.0% | 100.0% |
| | | % of Total | 0.3% | 1.4% | 0.6% | 0.0% | 2.4% |
| | Pursuing Higher Education | Count | 2 | 70 | 60 | 2 | 134 |
| | | % within Present Status of the respondents | 1.5% | 52.2% | 44.8% | 1.5% | 100.0% |
| | | % of Total | 0.3% | 11.2% | 9.6% | 0.3% | 21.5% |
| | Unemployed | Count | 28 | 65 | 15 | 3 | 111 |
| | | % within Present Status of the respondents | 25.2% | 58.6% | 13.5% | 2.7% | 100.0% |
| | | % of Total | 4.5% | 10.4% | 2.4% | 0.5% | 17.8% |
| Total | | Count | 137 | 375 | 102 | 10 | 624 |
| | | % within Present Status of the respondents | 22.0% | 60.1% | 16.3% | 1.6% | 100.0% |
| | | % of Total | 22.0% | 60.1% | 16.3% | 1.6% | 100.0% |

It is revealed from the above table (6.20) that majority of the past students (60.1%) from different streams have joined the course because of scope for the job whereas some students (22.0%) had joined because of scope of self employment and the remaining students (16.3% and 1.6%) chose the course for the purpose of joining higher education and due to some other reasons.

The data of present status shows that most of the students are full time job employed (43.8%) and part time job employed (2.4%) whereas 11.7% and 2.9% are full time and part time Self-employed while 21.5% are pursuing higher education and the remaining students (17.8%) are unemployed due to some or the other reasons.

It can be interpreted from the above analysis that most of students from different streams have joined for the course with an intention that there is a scope for the job and they will get the job if skill courses are chosen in the respective field of studies. Some students have joined for the purpose of starting their own business in which skill education imparted by the institutions. Another group of students from various streams

had an intention to pursue higher education and few students cited some other reasons. The data also reveals that most of the students who joined with the specific intention have fulfilled either joining for the job, by starting their own business or going for further studies. It shows that there is a relation of reason for joining the course to the present status of the students. The department of Education and Ministry of Skill Development had introduced skill courses with an intention that students will start their own business and they will become highly competent on the job. But it is seen from the above analysis most of the students from different streams are not interested in starting their own business whereas they are willing to go for job and the remaining students want to go for higher studies.

**Table 6.21: Table showing Chi-square value**

| Chi-Square Tests | | | |
|---|---|---|---|
| | Value | Df | Asymp. Sig. (2-sided) |
| Pearson Chi-Square | 278.633ᵃ | 15 | **.000** |
| Likelihood Ratio | 253.868 | 15 | .000 |
| Linear-by-Linear Association | 76.415 | 1 | .000 |
| N of Valid Cases | 624 | | |
| a. 10 cells (41.7%) have expected count less than 5. The minimum expected count is .24. | | | |

**Table 6.22: Table showing Coefficients value**

| Coefficientsᵃ | | | | | |
|---|---|---|---|---|---|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 2.101 | .184 | | 11.437 | **.000** |
| | Reason for joining the Course | .821 | .088 | .350 | 9.325 | **.000** |
| a. Dependent Variable: Present Status of the respondents | | | | | | |

The ***Chi-square test*** (table 6.21) was run to see whether there is any association between the expectations of the students and present status of the students to know whether they are employed on job, self-employed, pursuing higher education or still unemployed. The **Pearson *Chi-square* test** value (278.633) at 5% significance (2-tailed) is 0.000. The ***Coefficients value*** (table 6.22) also significant, $t$=11.437 and its corresponding $p$ value is 0.000 which is less than 0.05 at 5% level of significance. This signifies that there is a significant association between the reason for joining the course and present status of the students with respect to job employment, self-employment and pursuing higher education. It indicates that the students who have joined with a specific intention whether to join for the job or to start self employment or to pursue higher education have been fulfilled which shows that there is direct relation of reason for joining the course and the present status of the students in the state who have pass out from the respective trades. **Thus, the null hypothesis is rejected.**

## 6.4 Conclusion:

**Table 6.23: Table showing a brief summary impact and association on employment and self-employment**

| Aspects of impact on employment and self-employment | Stream | Trade | Reason |
|---|---|---|---|
| **Status of Past students** | **Rejected** | **Rejected** | **Rejected** |
| 1) Self- Employment and Job Employment | .000 | .000 | .000 |
| 1) Self-Employment (Full time/part time) | .000 | .010 | -- |
| 3) Job-Employment (Full time/Part time) | .000 | .011 | -- |

With the help of above table 6.23, and the hypothesis formed, it can be conclude from the past students that it shows a significant impact on employment (Self and Job employment) Stream wise and trade wise in the state of Goa. So also it reveals that there is a significant association between the reason for joining the course and status of past students. Thus based upon the above brief important findings, we can conclude that, *"impact of skill development programmes on employment and self-employment is significant"*. **It means a good number of past students are employed either on job or on self employment. So, the null hypothesis is rejected and alternate hypothesis is accepted**. In general most of the past students are employed either on job or have started their own business in the field of education acquired. The association between reason for joining the course and status of the past students indicates that skill development programmes have benefited a lot to get employed on the job or to start self-employment.

This chapter has covered in detail data analysis and interpretation of selected sample respondents from the Past Students. The questionnaire was prepared by the researcher which was asked during the field work to fulfil the concerned objective. The researcher has also framed hypothesis for testing of the related sample respondents. The researcher has tried to cross verify the outcomes of the Past Students to make a detailed study and to draw a reliable conclusion. The researcher has tried to give applied suggestions on the basis of the conclusion. The researcher has collected data from from Past students are interpreted in this chapter. The researcher has made differentiation for making detailed and descriptive study of the collected data and has extracted results from it.

**\*\*\*\*\***

## 7. 1) Perception of Industrialists

### 7.1.1 Introduction

To evaluate skill development programmes in Goa, the industrialist views were also taken into consideration to know their opinions on the prevailing situation on training. Hence industrialists were also asked to give their opinions through structured close ended questionnaires. A total of 72 industries were considered for the study out of which 40 were Industrial units and 32 Startup companies from 12 different talukas in Goa. Most of the owners of industries were not willing to provide information whereby the Human Resource (HR) managers were asked to fill the required information. But, most of the startup eagerly supplied information required for the study. The industries consist of manufacturing, trading, service and some other category. Startup companies comprise of categories like manufacturing, trading and service concern were also considered for the study. The below analysis shows the various tables, interpretation and findings they are as follows:-

### 7.1.2 Social Profile

The table below (7.1) shows the profile of the industrialist collected gender wise, district wise and taluka wise for the study, which is as follow;

**Table 7.1 Social Profile of the respondents (Gender, District, Taluka)**

|  | **Particulars** | **Frequency** | **Percentage** |
|---|---|---|---|
| Gender | Male | 63 | 87.5% |
|  | Female | 9 | 12.5% |
|  | Total | **72** | **100%** |
| District | North | 47 | 72.5% |
|  | South | 25 | 27.5% |
|  | **Total** | **72** | **100%** |
| Taluka | Bardez | 26 | 36.1% |
|  | Pernem | 5 | 6.9% |
|  | Ponda | 3 | 4.2% |
|  | Tiswadi | 12 | 16.7% |
|  | Salcete | 24 | 33.3% |
|  | Mormugao | 2 | 2.8% |
|  | **Total** | **72** | **100%** |

*(Source: Field Work)*

The total numbers of respondents were 72 out of which 63 were males and 9 were females i.e. 87.5% and 12.5% respectively. It means that most of the owners, managers and executives are male. It also depicts that there are two districts in Goa i.e. North districts and South districts. A study was undertaken in both the district north as well as South district to find the views of industrialists on skill development Programmes in Goa.

Out of 72 industries and startup companies 47 industries were from North district and 25 were from South district i.e. 72.5% industrialist were from North and 27.5% were from South district. An attempt was made by a researcher to select industries from all talukas in Goa. But it was quite difficult to find industries from all talukas since some talukas have less industries like Bicholim, Sattari in North district and Quepem, Sanguem, Dharbandora and Canacona in South district. Hence, only six talukas were considered and industrialists were collected from six talukas namely Pernem, Bardez, Tiswadi, Ponda, Salcete and Mormugao for the survey. Among the 6 talukas majority of the industrialist/ companies were from Bardez Taluka i.e. 36.1% followed by Salcete Taluka i.e 33.3% and remaining industrialist were from Tiswadi, Pernem, Ponda and Mormugao i.e. 16.7%, 6.9%, 4.2% and 2.8% respectively.

### 7.1.3: Sector of business

Table 7.2 (A, B, C) shows the sector of business in which the respondents are involved for the business they are manufacturing, trading and service. Besides 3 options of sector one more option was provided i.e. any other sector. The respondents were asked to tick mark the respective option in which the respondent involved in the business. So also various sub-options were also provided under each sector of manufacturing, trading and service sector. For manufacturing sector the options available were whether they produce "Consumer goods", "Fast Moving goods", "Industrial products" and "any other products". Under trading sector options were "Retailing", "Distributorship", "Warehousing" and "any other". So also for service sectors options allotted were "Tourism", "Event Management", "Consultancy", "Hotel / Restaurant", "Health care" and "any other".

**Table 7.2A): Table showing Manufacturing industries**

| Sr No | Course | Particulars | | | | Total |
|---|---|---|---|---|---|---|
| | | Consumer goods | FMG | Industrial product | Any other | |
| 1 | Start-Ups | 1(25.0) | 1(25.0) | 2(50.0) | - | 4(100) |
| 2 | Industries | 5(13.5) | 2(5.4) | 17(45.9) | 13(35.2) | 37(100) |
| 3 | **Total** | 6(19.3) | 3(9.7) | 19(61.3) | **13(31.7)** | **41(100)** |

**Table 7.2B): Table showing Trading industries**

| Sr No | Course | Particulars | | | | Total |
|---|---|---|---|---|---|---|
| | | Retailing | Distributorship | Warehousing | Any other | |
| 1 | Start-Ups | - | - | - | - | - |
| 2 | Industries | - | 1(100) | - | - | 1(100) |
| 3 | **Total** | - | **1(100)** | - | - | **1(100)** |

**Table 7.2 C): Table showing Service industries**

| Sr No | Course | Particulars | | | | | | Total |
|---|---|---|---|---|---|---|---|---|
| | | Tourism | Event Management | Consul-tancy | Hotel/Re staurant | Health - care | Any other | |
| 1 | Start-Ups | 4(21.0) | 1(5.3) | 6(31.6) | 1(5.3) | - | 7(36.8) | 19(100) |
| 2 | Industries | - | - | 3(27.3) | 1(9.1) | - | 7(63.6) | 11(100) |
| 3 | **Total** | 4(13.3) | 1(3.3) | **9(30.0)** | **2(6.7)** | **-** | **14(46.7)** | **30(100)** |

*(Source: Field Work)*

Out of the 72 respondents majority of the respondents i.e. 41 were in manufacturing sector while other major sector was service sector i.e. 30 and only 01 respondent was in trading sector. Out of 41 respondents from manufacturing sector, 61.3% were involved in Industrial product, whereas 19.3% were consumer goods producer, 9.7%b was FMG and remaining 31.7% were producing some other type of product. If it is seen from trading sector hardly one respondent was involved in trading activity that too he is in distributorship business. In the service sector most of the respondents i.e. 46.7% have not disclosed their business area and they do not fall under the various options available to them. Consultancy is an another broader area under service sector where the 30.0% of the respondents fall under this category followed by 13.3% tourism, 6.7% Hotel/ restaurant and 3.3% event management.

From the above analysis it can be interpreted that most of the industrialist involved in training students whether on the job, internship or short term training are from manufacturing sector (56.9%) followed by service sector (41.7%) and remaining respondents were from trading sector (1.4%). Majority of the industrialist fall under the category of manufacturing sector and the least of the respondents were in trading sector whereas a good number of respondents after manufacturing were surveyed from service sector. In manufacturing majority of the respondents were involved in industrial goods followed by consumer goods, FMG and some other products. Industrial goods are those goods which included plant, material and machinery used by other factories and industries/firms for manufacturing purpose. Consumer and eatable items, fast moving good are those goods that are sold quickly at a low cost which includes non-durable or perishable goods like soft drinks, toiletries, over the counter drugs, processed foods and many other consumables such as milk, gum, fruits, vegetables, soda beer etc. Only one respondent was survey from Trading sector i.e. Distributorship whereas Retailing and Warehousing were nil. In service sector majority of the respondents were consultants, event management while many respondents did not mention the area of service business (46.7%).

**7.1.4 Firms / Companies provides training to the students**

Table No.7.3 gives information of the training provided by the firm / department in the various industries in Goa. Hence the entrepreneurs were asked to give their responses using two options "Yes" or "No" which is shown below;

**Table 7.3: Table showing Firms / Companies provides training to the students**

| Sr No | Course | Particulars | | Total |
|---|---|---|---|---|
| | | Yes | No | |
| 1 | Start-Ups | 26(83.9%) | 5(16.1%) | 31(100%) |
| 2 | Industries | 35(97.2%) | 1(2.8%) | 36(100%) |
| 3 | **Total** | **61(91.0%)** | **6(9.0%)** | **67(100%)** |

*(Source: Field Work)*

**(Note: All sample respondents have not responded, so total sample respondent are less.)**

It was observed that most of the firms / companies do provide training to the student. On the whole 91.0% of the firms / companies stated that they provide training whereas only 9% claimed that they do not provide any sort of training to the students. Most of the HR managers and entrepreneurs of the companies i.e. 97.2% of the industries and 83.9% of startups companies provide training whereas only 2.8% and 16.1% respectively do not provide training to the students.

It can be interpreted that most of the firms / companies take students for training during the course or after the course work. There is no difference between start-up companies and industrialists existing for a long time. Very few respondents said that they do not provide training to the students. It indicates that most of the companies in Goa are ready to accept students for training purpose in the industries. It is necessary to find companies and send students for practical training in those companies. The firms/ companies should be selected for the training on the basis of those who are ready to accept students for training in the industries. It is necessary for the government to make it mandatory for all the companies to accept students for practical training on the job as internship for 6 months. The government should pay per student to the industrialist and the industry should pay stipend to the students for taking training on-the job. The government should prepare a model to provide practical training in industries rather than providing such training in the institutions itself. The concerned teacher should be made in-charge to look after students and to keep track on students. The principal and government officers should also check that the system is working properly though a surprise visit every fortnight or monthly to the industries wherever students are deployed for the training.

### 7.1.5 Type of training provided by company

Table No.7.4 indicates the type of training provided by the company during the course work or before recruitment on the job. The respondents were given four option to rank the type of training offered by the industries i.e. "on-the job training", "internship", "apprenticeship" or "any other type of training", which are as follows;

**Table 7.4: Table showing type of training provided by companies**

| Sr No | Course | Particulars | | | | Total |
|-------|--------|--------------------|------------|---------------|-----------|-------------|
| | | On the Job training | Internship | Apprenticeship | Any other | |
| 1 | Start-Ups | 25(78.1) | 8(25.0) | 1(3.1) | 2(6.3) | 36 (N=32) ** |
| 2 | Industries | 34(85.0) | 14(35.0) | 14(35.0) | 1(2.5) | 63 (N=40) ** |
| 3 | **Total** | **59(81.9)** | **22(30.6)** | **15(20.8)** | **3(4.2)** | **99 (N=72) **** |

**(Source: Field Work)**

**Note: * Multiple responses so total is more than N.**

**** Percentage to number of respondents N=72.**

The researcher has calculated percentage with regards to total sample size (N=72) and not based on multiple responses given by the respondents. The respondents were given option to make multiple responses and as per multiple responses ranked the total respondents comes to 99, 63 and 36 which is not considered for calculating percentage that is why the total percentage is more than 100%. Majority of the respondents disclosed that they provide training in the form job training i.e. 81.9% followed by internship to the students i.e. 30.6%, apprenticeship i.e. 20.8% and remaining 4.2% some other type of training. Most of the industries i.e. 85.0% provide job training and equal number of respondents i.e. 35.0% each provide internship and apprenticeship training and few some other type of training i.e. 2.5% while most of the startup companies i.e.78.1% provide on-the job training followed by 25.0% internship and few provide apprenticeship and some other type of training i.e. 3.1% and 6.3% respectively.

It is interpreted from above analysis that most of the industrialist provides job training which means students are trained on the job at work place along with the other employees working in the industry for a limited period. Some of the industrialist takes students on internship ranging from one month to 6 months period as per the guidelines of the institutions. Some other industrialist accept students on apprenticeship training for a longer period of time from 6 months to 2 years as a part of course work where the students are paid in the form of stipend and certificate is issued to the students. The study reveals that most of the industries and startup companies provide training on the job.

### 7.1.6 Number of students trained by your firm

Table 7.5 indicates the number of students trained for last 4 years i.e. 2012 to 2015 in the industries whether it is for short period, medium or long term. The students were trained on the job, internship basis, apprenticeship and any other type of training is provided to the students and trainees those who undergo various types of skill courses under skill development programmes are shown below;

**Table 7.5: Table showing number of students trained by your firm**

| Sr No | Course | Particulars | | | | Total |
|-------|--------|------|------|------|------|-------|
| | | 2012 | 2013 | 2014 | 2015 | |
| 1 | Start-Ups | 25 (4.9) | 43 ( 0.6 times) (8.5) | 108 (4.3 times) (21.3) | 331 (13.2) (65.3) | 507(100) |
| 2 | Industries | 168(17.2) | 208 (1.2 times) (21.3) | 258 (1,5 times) (26.6) | 340 (2.1 times) (34.9) | 974(100) |
| 3 | **Total** | **193 (13.1)** | **251 (1.3 times) (16.9)** | **366 (1.9 times) (24.7)** | **671 (3.5 times) (45.3)** | **1481 (100)** |

**(Source: Field Work)**

It can be observed from the above table that training provided to students and trainees has been increased from 193 trainees in 2012 to 251, 366 and 671 trainees in 2013, 2014 and 2015 respectively. So also in case of industries it has gone up from 168 to 208, 258 and 340 from 2012 to 2015 respectively where the startup shows the increasing trend from 25 in 2012 to 43, 108 and 331 in 2013, 2014 and 2015 respectively.

The above table 7.5 shows that the industries provide training to the students or trainees is increasing year after year. It means the industrialist accept more and more students for training from 2012 to 2015. To calculate trend of the trainees trained in the companies, year 2012 was taken as a base. On the basis of year 2012 it shows increasing trend i.e. 1.3, 1.9 and 3.5 times from 2013 to 2015. Industries shows upward trend i.e. 1.2, 1.5 to 2.1 times from 2013 to 2015 respectively whereas startups too indicates upward trend i.e. 0.6, 4.3 and 13.2 times from 2013 to 2015. Most of the students are trained in 2015 i.e. 34.9% followed by 26.6%, 21.3% and 17.2% in the year 2014, 2013 and 2012 respectively in industries where as 65.3%, 21.3%, 8.5% and 4.9% are trained by startup from 2015 to 2012 respectively.

It can be interpreted that the students accepted by the industrialists and start-up companies for training shows an increasing trend every year from 2012 to 2015. It shows slow increase for 2013 and 2014 which has increased to 1.9 times as compared to 2012. But in the year 2015 the acceptance of students for training purpose has increased in many fold i.e. 3.5 times as compared to 2012. It is a positive sign shown by the industrialist for accepting students for training. The industrialist has realized the

importance of students taken for training because students learn better during the course work and they learn requirements of job needed after completion of course to be done on the job. The industrialist even gets their work done at a low cost by just paying small amount as stipend. The trend of trainees accepted between industries and startup companies shows increasing trend but the number of trainees accepted by startup companies are more than the industries. The trainees taken for training by startup companies are many folds more than the other industries. The startup companies have trained 13.2 times more in the year 2015 as compared to 2012 and 4.3 times and 6 times in the corresponding years whereas industries show only 2.1 times increased in year 2015 as compared to 2012. Since startup companies are newly established unit they depend upon the freshers studying in the institution or recently past out. It become a cost cutting factor for them for accepting students and getting their work done at a lower cost. Majority of the students are trained in the year 2015 as compared to previous years. Startup companies shows more percentage of students as compared to industries trained in the year 2015 i.e. 65.3% and 34.9% respectively where as for other years the percentage of trained students are more by other industries than startup companies.

### 7.1.7 Number of students employed by the firm after training

Table 7.6 indicates the number of students employed by firms or industries after training in the industries. The number of years considered for the study was 4 years i.e. 2012 to 2015. An attempt was made to find the number of student employed by the same company after they are trained in the industry.

**Table no. 7.6 Number of students employed by the firm after training**

| Sr No | Course | Particulars | | | | Total |
|---|---|---|---|---|---|---|
| | | 2012 | 2013 | 2014 | 2015 | |
| 1 | Start-ups | 16(3.7) | 32 (2.0 times) (7.5) | 88 (5.5 times) (20.5) | 293 (18.3 times) (68.3) | 429(100) |
| 2 | Industries | 120(22.8) | 114 (0.10 times) (21.7) | 135 (1.1 times) (25.7) | 157 (1.3 times) (29.8) | 526(100) |
| 3 | **Total** | **136(14.2)** | **146 (1.1 times) (15.3)** | **223 (1.6 times) (23.4)** | **450 (3.3 times) (47.1)** | **955(100)** |

It reveals from the above table 7.6 that the number of student employed by the firm / company shows increasing trend i.e. 1.1 times, 1.6 times and 3.3 times from the year 2013, 2014 and 2015 respectively. The year 2012 was taken as a base to find the trend of the students employed by the firm. Startup companies shows higher trend as compared to other industries. Startup companies employed more students in percentage

wise to other industries. The employed students of startups after training have gone up from 2 times, 5.5 times and 18.3 times in the year 2013, 2014 and 2015 respectively whereas other industries have employed at the rate of 0.10 time, 1.1 times and 1.3 times during the same years respectively. Most of the students i.e. 47.1% are trained in the year 2015 followed by 23.4%, 15.3% and 14.2% in the corresponding previous years.

It can be interpreted from the above analysis that majority of the students are employed in the years 2015 compared to past years from 2015. A difference is seen between startup companies and other industries that more number of students are employed i.e.68.3% by startup companies in the year 2015 as compared to other industries during the same year whereby for the previous 5 years i.e. 2012 to 2014 more students were employed by other industries as compared to startup companies. There is an overall increasing trend of students taken on which has gradually increased from 2012 to 2015. But, startup companies shows faster trend of accepting students for employment than other industries. The trend of training students of startup has increased to 18.3 time in 2015 with reference to 2012 as compared to other industries during the same period i.e. 1.3 times.

### 7.1.8 Type of candidate preferred for the job

Table No.7.7 depicts the type of candidate companies and industrialist expect for the job. The respondents were given different option to rank such as "skilled", "unskilled", "trained", "untrained", "experienced" and "inexperienced". The total numbers of respondents are 72 but one of multiple responses, the number of respondents shown in the table is 71, 46 and 117.

**Table 7.7: Table showing type of candidate preferred for the job**

| Sr No | Course | Particulars | | | | | | Total |
|-------|--------|---------|-----------|---------|-----------|-----------|----------------|-------|
|       |        | Skilled | Un-skilled | Trained | Un-Trained | Experi-ence | In Experience | |
| 1 | Start-ups | 18(56.3) | 2(6.3) | 12(37.5) | 2(6.3) | 10(31.3) | 2(6.3) | 46 (N= 32)*** |
| 2 | Industries | 25(62.5) | 4(10.0) | 17(42.5) | 6(15) | 18(45) | 1(2.5) | 71 (N= 40) *** |
| 3 | **Total** | **43(59.7)** | **6(8.3)** | **29(40.3)** | **8(11.1)** | **28(38.9)** | **3(4.2)** | **117(N= 72)*** |

*(Source: Field Work)*

**(Note: * Multiple responses so total is more than N.**

**\*\* Percentage to number of respondents N=72.**

The percentage is calculated on the basis of N=40, N=32 and N=72 with regards to industries, startup companies and total respectively and not on the total respondents responded i.e. 71, 46 and 117 respectively. Most of the respondents i.e. 59.7% prefer skilled employees for job followed by trained and experienced i.e. 40.3% and 38.9% respectively whereas few respondents prefer untrained, unskilled and inexperienced candidates for the job i.e. 11.1%, 8.3% and 4.2% respectively. There is no difference in expectation between startup companies and other industries both of them prefer skilled candidates i.e. 56.3% and 62.5% respectively followed by experience and trained candidates in case of other industries whereas trained and experience candidates in case of startup companies.

**7.1.9 Testing Hypothesis:**

To verify the fifth objective of the study i.e. *to identifying the gap between Human Resource Requirements by Industries and the Availability of Human Resources in the state of Goa,* the following hypothesis was formed;

**H0:** *Requirement of Human Resources to the Availability of manpower is adequate.*
**H1:** *Requirement of Human Resources to the Availability of manpower is inadequate.*

Two hypotheses were framed with reference to skills and qualification and tested with various statistical tools such as *mean and independent sample t-test* were used to serve the objective. Further the data collected from industries and start-up companies was grouped together and tabulated to find out whether there is any gap between requirement in the industries and availability of manpower in the market based on skills and qualification in the state of Goa. The data collected from the respondents was grouped into four important areas for skills and eleven areas for qualification to find out any gap in requirement and availability of manpower in the following aspects they are;

**A) For skills - 1) Specialized skilled, 2) Highly Skilled, 3) Semi-skilled and 4) Minimally skilled**
**B) For qualification - 1) NSQF certificate Holders, 2) Vocational certificate Holders, 3) PG Degree holders,  4) ITI  Certificate holder, 5) Diploma Holders, 6) HRDFS Technical Students, 7) EDP Trainees, 8) Security Guards, 9) Tailoring and Embroidery trainees and  10) Apprentices.**The information was collected on the above area from 72 industrialists and proprietors of start-up companies from all over the Goa.

**7.1.10 Gap between Requirement and availability of workers.**

**H01: There is no significant gap between the requirement and the availability of skilled workers based on skills in the State of Goa.**

Table 7.8 Table showing required and available skilled manpower (Level of skills)

| Types | Skills | (a) Requirement of Manpower | | | | (b) Availability of manpower | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Low | % | High | % | Low | % | High | % |
| Levels of skills | Specialized skills | 25 | (34.7) | 47 | (65.3) | 64 | (88.9) | 8 | (11.1) |
| | Highly Skilled | 23 | (31.9) | 49 | (68.1) | 57 | (79.2) | 15 | (20.8) |
| | Semi skilled | 33 | (45.8) | 39 | (54.2) | 31 | (43.1) | 41 | (56.9) |
| | Minimally skilled | 46 | (63.9) | 26 | (36.1) | 10 | (13.9) | 62 | (86.1) |

Table 7.8 shows the quantitative skill gap analysis of human resource in the industries for which the researcher has included the demand side and supply side i.e. 'Requirement of Manpower' by the industries and "Availability of Manpower" which were trained by the centers. An attempt was made to find the gap between industry academia linkage and the gap that exist between them. The analysis was made on the basis of level of skills. Skills were divided into 4 categories which are specialized skills, highly skilled, semi-skilled and minimally skilled depending upon the nature, duration of training and education received by the students; the various employees are categorized to match the different 4 level of skills. Specialized skilled workers are those who are specialized in one of the trade and little knowledge of other trades, these types of employees are generally post graduates, engineers etc. The Highly skilled employees include graduates and diploma holders whereas semi skilled workers are ITI pass outs, Xth and XIth pass outs. The minimally skilled are in other words they are minimally qualified or uneducated labourers like early school drop-outs, 10th or 12th standard drop-outs etc.

The majority of the industrialist opined that there is a  high requirement / demand for manpower in Specialized skills, highly skilled and semi-skilled workers  i.e. 65.3%, 68.1% and 54.2% whereas low requirement/demand of manpower for minimally skilled employees i.e. 63.9%. On the contrary most of the respondents revealed that there is a low availability/supply of highly skilled and semi-skilled workers i.e. 88.9% and 79.2% whereas high availability of workers in case of semi skilled and minimally skilled employees i.e. 56.9% and 86.1% respectively.

From the above analysis it can be interpreted that demand for manpower is high in case of specialized skilled and highly skilled workers but the supply side of trained youth is low. In case of semi-skilled workers requirement of manpower is high so also availability of manpower is also high and for minimally skilled requirement of workers is high. It means it is a matter of concern with regards to specialized skilled and highly skilled workers since there is a negative gap between requirement and availability or demand and supply. There is a lot of demand for specialized skilled and highly skilled workers but there is low supply or scarcity for availability of trained employees for the job. In case of semi-skilled workers there is no gap which means there is no difference between requirement and availability of workers. The demand and supply are both high which means as there is a high requirement of workers in industry the institutions and the training centers also train or prepare students in the respective trades required by the industries. The minimally skilled worker does not need to be worried because there is a positive gap between the requirement and availability of workers. It indicates that there are lot of minimally skilled workers available in the market on daily basis at a lower rate due to high population and lot of uneducated people in India. They search for the job to earn their livelihood and day today life.

**Table 7.9: Table showing group statistics**

|  |  | Mean | N | Std. Deviation |
|---|---|---|---|---|
| Pair 1 | Specialized Skills Required | **1.64** | 72 | .484 |
|  | Specialized Skills Available | 1.10 | 72 | .298 |
| Pair 2 | Highly Skilled Required | **1.68** | 72 | .470 |
|  | Highly Skilled Available | 1.18 | 72 | .387 |
| Pair 3 | Semi Skilled Required | 1.54 | 72 | .502 |
|  | Semi Skilled Available | **1.60** | 72 | .494 |
| Pair 4 | Minimally Skilled Required | 1.38 | 72 | .488 |
|  | Minimally Skilled Available | **1.86** | 72 | .348 |

**Table 7.10: Table showing 2 t-test**

|  |  | Mean | Std. Deviation | T | Df | sig. (2-tailed) | Null hypothesis |
|---|---|---|---|---|---|---|---|
| Pair 1 | Specialized Skills Required - Specialized Skills Available | .542 | .627 | 7.335 | 71 | .000 | **Reject** |
| Pair 2 | Highly Skilled Required – Highly Skilled Available | .500 | .712 | 5.958 | 71 | .000 | **Reject** |
| Pair 3 | Semi Skilled Required – Semi Skilled Available | -.056 | .767 | -.615 | 71 | .541 | Retain |
| Pair 4 | Minimally Skilled Required – Minimally Skilled Available | -.486 | .692 | -5.962 | 71 | .000 | **Reject** |

The table 7.10 clearly indicates that there is significant difference between the requirement and availability of specialized skilled, highly skilled and minimally skilled labours. The mean values (table 7.9) indicate that the requirement of specialized skilled and highly skilled labours is more but the availability is less whereas in case of minimally skilled labours availability is more than the requirement of workers. No significant difference is shown in-between the requirement and availability of semi skilled labours, **thus Null hypothesis is rejected.**

**7.1.11 Gap between Requirement and availability of workers (Qualification).**

**H02: There is no significant gap between the requirement and the availability of skilled workers based on Qualification in the State of Goa.**

**Table 7.11 Table showing required and available skilled manpower (Qualification)**

| Types | Skills | (a) Requirement of Manpower | | | | (b) Availability of manpower | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Low | % | High | % | Low | % | High | % |
| Skills Qualification | a)NSQF certificate Holders | 55 | **(76.4)** | 17 | (23.6) | 37 | **(51.4)** | 35 | (48.6) |
| | b) Vocational certificate Holders | 40 | **(55.6)** | 32 | (44.4) | 18 | (25.0) | 54 | **(75.0)** |
| | c)ITI Certificate holder | 17 | (23.6) | 55 | **(76.4)** | 27 | (37.5) | 45 | **(62.5)** |
| | d) PG Degree holders | 25 | (34.7) | 47 | **(65.3)** | 30 | (41.7) | 42 | **(58.3)** |
| | e) Diploma Holders | 18 | (25.0) | 54 | **(75.0)** | 40 | **(55.6)** | 32 | (44.4) |
| | f) HRDFS Technical Students | 35 | (48.6) | 37 | **(51.2)** | 38 | **(52.8)** | 34 | (47.2) |
| | g) EDP Trainees | 54 | **(75.0)** | 18 | (25.0) | 39 | **(54.2)** | 33 | (45.8) |
| | h) Security Guards | 48 | **(66.7)** | 24 | (33.3) | 35 | (48.6) | 37 | **(51.4)** |
| | i) Tailoring and Embroidery trainees | 55 | **(76.4)** | 17 | (23.6) | 31 | (43.1) | 41 | **(56.9)** |
| | J) Apprentices | 19 | (26.4) | 53 | **(73.6)** | 46 | **(63.9)** | 26 | (36.1) |
| | l)Others(specify)____ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

*(Source: Field Work)*

Table 7.11 shows the quantitative skill gap analysis of human resource in the industries on the basis of 'Requirement of Manpower by the industries' and "Availability of Manpower" to find the gap between industry academia linkage and the gap that exist between them based on skills qualification. The various types of qualification considered were NSQF certificate holders, vocational certificate holders, ITI students, post graduate holders, Diploma holders, HRDFS students, EDP certificate holders, security guards, tailoring and embroidery trainees, apprentices and other trainees from agriculture , animal husbandry and urban development to know the deficit or surplus created in each and every skill of imparted skills. The qualification wise analysis shows that there is low demand for NSQF certificate holders, vocational certificate holders, entrepreneurship development trainees, security guards, tailoring and embroidery trainees are other initiative trainees i.e. 76.4%, 55.6%, 75%, 66.7%, and 76.4% respectively whereas there is a high demand for workers in case of ITI pass-outs students , PG degree holders, diploma holders, HRDFS students, and apprentices i.e. 76.4%, 65.3%, 75%, 51,2% and

73.6% respectively. on the other hand there is a low availability of manpower incase of NSQF, certificate holders, diploma holders, HRDFS students, EDP trainees, and apprentices i.e. 51.4%, 55.6%, 52.8%, 54.2% and 63.9% whereas the availability of workers is high in case of vocational certificate holders, ITI certificate holders, PG degree holders, security guards, tailoring and embroidery trainees trainees i.e. 75%, 62.5%, 58.3%, 51.4% and 56.9% respectively.

The qualification wise interpretation reveals that the requirement of workers as well as availability of workers with regards to NSQF certificate holders, EDP is low which indicates that demand for workers these three categories of certificate holders is less in the industries as well as their students trained and supplied is also low. In case of vocational students, security guards, tailoring and embroidery students and OITSG trainees the requirement of workers is low but the availability of workers is high. It means that in these 4 categories of workers industries should not worry since there are sufficient institutions to train manpower and they are easily available whereby their requirement is low to the industries. The requirement for ITI students and post graduate students from universities is high but their availability of workers is equally high. It shows that even though there is a high demand for workers for these types of works there are enough institutes to train such type of workers. In case of diploma holders, HRDFS students and apprentices, the requirement of workers is high but the availability of workers is low. It indicates that in these categories of workers there is a good demand for workers but the institutions are less to train students in respective trades which is a great concern of the industries.

**Table 7.12: Table showing Crosstabs (Qualification)**

|  |  | Mean | N | Std. Deviation |
|---|---|---|---|---|
| Pair 1 | NSQF Certificate Required | 1.19 | 72 | .399 |
|  | NSQF Certificate Availability | **1.50** | 72 | .504 |
| Pair 2 | Vocational Certificate Required | 1.47 | 72 | .503 |
|  | Vocational Certificate Availability | **1.75** | 72 | .436 |
| Pair 3 | ITI Certificate Required | **1.78** | 72 | .419 |
|  | ITI Certificate Availability | 1.60 | 72 | .494 |
| Pair 4 | PG Degree Required | 1.64 | 72 | .484 |
|  | PG Degree Availability | 1.60 | 72 | .494 |
| Pair 5 | Diploma Required | **1.81** | 72 | .399 |
|  | Diploma Availability | 1.40 | 72 | .494 |
| Pair 6 | HRDFS Courses certificate Required | 1.49 | 72 | .503 |
|  | HRDFS Courses certificate Availability | 1.53 | 72 | .503 |
| Pair 7 | Entrepreneurship Development certificate Required | 1.25 | 72 | .436 |
|  | Entrepreneurship Development certificate Availability | 1.40 | 72 | .494 |
| Pair 8 | Security Guards Required | 1.39 | 72 | .491 |
|  | Security Guards Availability | 1.50 | 72 | .504 |
| Pair 9 | Tailoring & Embroidery Required | 1.22 | 72 | .419 |
|  | Tailoring & Embroidery Availability | **1.58** | 72 | .496 |
| Pair 10 | Apprentices Required | **1.72** | 72 | .451 |
|  | Apprentices Availability | 1.32 | 72 | .470 |

**Table 7.13: Table showing t-test values (Qualification)**

| | | Mean | Std. Deviation | T | Df | Sig. (2-tailed) | Null Hypothesis (H0) |
|---|---|---|---|---|---|---|---|
| Pair 1 | NSQF Certificate Required – NSQF Certificate Availability | -.306 | .705 | -3.678 | 71 | .000 | **Reject** |
| Pair 2 | Vocational Certificate Required - Vocational Certificate Availability | -.278 | .697 | -3.384 | 71 | .001 | **Reject** |
| Pair 3 | ITI Certificate Required – ITI Certificate Availability | .181 | .699 | 2.193 | 71 | .032 | **Reject** |
| Pair 4 | PG Degree Required – PG Degree Availability | .042 | .740 | .478 | 71 | .634 | Retain |
| Pair 5 | Diploma Required – Diploma Availability | .403 | .705 | 4.846 | 71 | .000 | **Reject** |
| Pair 6 | HRDFS Courses certificate Required - HRDFS Courses certificate Availability | -.042 | .740 | -.478 | 71 | .634 | Retain |
| Pair 7 | Entrepreneurship Development certificate Required - Entrepreneurship Development certificate Availability | -.153 | .725 | -1.788 | 71 | .078 | Retain |
| Pair 8 | Security Guards Required – Security Guards Availability | -.111 | .848 | -1.111 | 71 | .270 | Retain |
| Pair 9 | Tailoring & Embroidery Required - Tailoring & Embroidery Availability | -.361 | .775 | -3.955 | 71 | .000 | **Reject** |
| Pair 10 | Apprentices Required – Apprentices Availability | .403 | .705 | 4.846 | 71 | .000 | **Reject** |

The table 7.13 *independent sample t-test* indicates that there is significant difference between the requirement and availability of workers in NSQF certificate holders, Vocational certificate holders, ITI holders, Diploma holders, Tailoring and embroidery trainees, apprentices and other certificate holders like agriculture, animal husbandry, urban development. The mean values in (table 7.12) indicate that the requirement of ITI certificate holders, Diploma holders, Apprentices are more but the availability is less whereas NSQF certificate holders, Vocational certificate holders Tailoring and embroidery trainees, availability is more but their requirement is less. There is no significant difference between the requirement and availability of PG certificate holders, HRDFS technical students, EDP trainees, and Security guards. So in most of the variable (7) there exist a significant difference, **thus Null hypothesis is rejected.**

### 7.1.12 Conclusion:

**Table No: 7.14 Table showing a brief summary of requirement and the availability of skilled workers**

| Aspects of requirement and Availability of human resource | Skills | Qualification |
|---|---|---|
| **Gap between Requirement and availability** | **Rejected (sig.)** | **Rejected (sig.)** |
| 1) Specialized skills | **.000** | ---- |
| 2) Highly Skilled | **.000** | ---- |
| 3) Semi Skilled | .541 | ---- |
| 4) Minimally Skilled | **.000** | ---- |
| 5) NSQF certificate Holders | ---- | **.000** |
| 6) Vocational certificate Holders | ---- | **.001** |
| 7) PG Degree holders | ---- | **.032** |
| 8) ITI Certificate holder | ---- | .634 |
| 9) Diploma Holders | ---- | **.000** |
| 10) HRDFS Technical Students | ---- | .634 |
| 11) EDP Trainees | ---- | .078 |
| 12) Security Guards | ---- | .270 |
| 13) Tailoring and Embroidery trainees | ---- | **.000** |
| 14) Apprentices | ---- | **.000** |

With the help of above table (7.14) and the hypothesis formed, it can be conclude that according to industrialist there is a significant gap in most of the variables tested above for requirement and availability of workers related to skills and qualification. Based on skills it is observed that there is difference between requirement and availability in specialized skills, highly skilled, and minimally skilled workers whereas no difference is found in semi-skilled workers. Further with reference to qualification there is a significant gap between requirement and availability in NSQF certificate holders, Vocational certificate holders, ITI holders, Diploma holders, Tailoring and embroidery trainees, apprentices and other certificate holders.

Thus based upon the above brief findings, we can conclude that, *"requirement of Human Resources to the availability of skilled workers is significant". It means that there is a significant gap between requirement of skilled workers and the availability of workers. In other words requirement and availability of workers is inadequate. So null hypothesis is rejected and alternate hypothesis is accepted.*

In general it indicates that the supply of trained workers is not sufficient to cope up with the requirement of workers in the industries for specialized skills and highly skilled whereas supply of minimally skilled workers is more than the requirement. The requirement of skilled workers and availability with regards to semi skilled is more or less same whereby there is no need to concentrate more on training semi skilled workers.

**7.2. Perception of Skill Development programmes**

**7.2.1 Introduction:**

To evaluate perception of skill development programmes in Goa, all stakeholders were taken into consideration to know their opinions on the prevailing situation on introduction of skill programmes in Goa. Hence all respondents were asked to give their opinions through structured close ended questionnaires. A total 1280 respondents were considered for the study out of which 81 were institutional heads, 503 present students, 624 past students and 72 were industrialist from 12 different talukas in Goa. The below analysis shows the various tables, interpretation and findings which are as follows:-

**7.2.2 Hypothesis testing**

To verify the sixth objective of the study i.e. *to compare the perceptions of different stakeholders regarding skill development programmes in the state of Goa,* the following hypothesis was framed;

**H0: Perceptions of different stakeholders regarding skill development programmes is not significant.**

**H0: Perceptions of different stakeholders regarding skill development programmes is significant.**

Three hypotheses were framed with reference to introduction of skill development programmes, responsibility of failure and reason for failure and they were tested with the help of various statistical tools such as *cross tabulation, ANOVA, multiple comparison and post Hoc test* to serve the objective. Further the data collected from all four stakeholders i.e. institutional heads, present students, past students and industrialist was grouped together and tabulated into tables to find out any difference in perception of different stakeholders towards skill development programmes in the state of Goa. The objective was specially formulated by keeping in mind to know the overall perceptions of all the stakeholders which are considered separately in the previous objectives to find results for the respective objective. This objective was framed in such a way that the perception of all four different stakeholders were combined together to know their opinion on three different variable on Skill Development Programmes in Goa.

**7.2.3 Perceptions regarding Introduction of Skill Development programmes**

**H01: There is no significant difference in the perceptions of different stakeholders regarding introduction of skill development programmes in the State of Goa.**

Table No. 7.15: Table showing cross tabulation (introduction of skill development programmes)

| introduction of skill Development Programmes in Goa * categories Crosstabulation | | | Categories | | | | Total |
|---|---|---|---|---|---|---|---|
| | | | H.O.D | Present student | Past student | Industr-ialist | |
| introduction of skill Development Programmes | Successful | Count | 50 | 331 | 370 | 36 | 787 |
| | | % within categories | 61.7% | 65.8% | 59.3% | 50.0% | |
| | | % of Total | 3.9% | 25.9% | 28.9% | 2.8% | 61.5% |
| | Failure | Count | 31 | 172 | 254 | 36 | 493 |
| | | % within categories | 38.3% | 34.2% | 40.7% | 50.0% | |
| | | % of Total | 2.4% | 13.4% | 19.8% | 2.8% | 38.5% |
| Total | | Count | 81 | 503 | 624 | 72 | 1280 |
| | | % within categories | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| | | % of Total | 6.3% | 39.3% | 48.8% | 5.6% | 100.0% |

Table No. 7.16: Table showing ANOVA test

| ANOVA | | | | | |
|---|---|---|---|---|---|
| Introduction of skill Development Programmes in Goa | | | | | |
| | Sum of Squares | Df | Mean Square | F | Sig. |
| Between Groups | 2.212 | 3 | .737 | 3.130 | **.025** |
| Within Groups | 300.148 | 1274 | .236 | | |
| Total | 302.361 | 1277 | | | |

Table No. 7.17: Post Hoc Tests

| (I) categories | (J) categories | Mean Difference (I-J) | Std. Error | Sig. |
|---|---|---|---|---|
| H.O.D | Present student | .025 | .059 | .669 |
| | past student | -.040 | .058 | .491 |
| | Industrialist | -.133 | .079 | .093 |
| Present student | H.O.D | -.025 | .059 | .669 |
| | past student | -.065[*] | .029 | **.025** |
| | Industrialist | -.158[*] | .061 | **.010** |
| past student | H.O.D | .040 | .058 | .491 |
| | Present student | .065[*] | .029 | **.025** |
| | Industrialist | -.093 | .060 | .124 |
| Industrialist | H.O.D | .133 | .079 | .093 |
| | Present student | .158[*] | .061 | **.010** |
| | past student | .093 | .060 | .124 |

The *Cross tabulation* (table 7.15) shows that whether skill Development programmes are successful or failure in the state of Goa. The students were asked to rank on the basis of whether skill development programmes in Goa is "Successful" or "Failure". 61.5% of the institutional heads said that skill development programmes are successful while 38.5% said it is failure in the state of Goa. It means that the perception of most of the respondents from different categories on introduction of skill development programmes is successful in Goa whereas some of the respondents feels that skill development programmes are failure in Goa except in case of industrialist they feel it is neither successful nor failure i.e.50%-50%.

The *One way ANOVA* Table (7.16) shows that *p* value (0.025) which is less than 0.05 at 5% level of significance shows that a significant difference in the perception of different categories of respondents towards the introduction of skill development programmes in Goa. It indicates that there exists a significant difference between the perception from different categories towards successful or failure of skill programmes tested above.

The *Post Hoc test* table (7.17) reveals that there is a significant difference between the present students and past students (*p* value is .025) and present students and industrialist (*p* value is .010). It means even though all categories perceive that the skill programmes introduced in Goa, HoD and present students feels that skill programmes are more successful as compared to past students and industrialists, **thus it is concluded that null hypothesis is rejected.**

## 7.2.4 Perceptions regarding reason for failure

**H02: There is no significant difference in the perceptions of different stakeholders regarding reason for failure of skill development programmes in the state of Goa.**

**Table No. 7.18: Table showing cross tabulation of reasons for failure**

| | | | Categories | | | | Total |
|---|---|---|---|---|---|---|---|
| | | | H.O.D | Present student | Past student | Industri-alist | |
| Reason for failure | Skill Education Imparted | Count | 5 | 30 | 34 | 4 | 73 |
| | | % within categories | 16.1% | 17.4% | 13.2% | 11.1% | |
| | | % of Total | 1.0% | 6.0% | 6.8% | 0.8% | 14.7% |
| | Syllabi/Curriculum Framed | Count | 8 | 23 | 29 | 8 | 68 |
| | | % within categories | 25.8% | 13.4% | 11.2% | 22.2% | |
| | | % of Total | 1.6% | 4.6% | 5.8% | 1.6% | 13.7% |
| | Implementation of Policy | Count | 13 | 52 | 77 | 19 | 161 |
| | | % within categories | **41.9%** | **30.2%** | **29.8%** | **52.8%** | |
| | | % of Total | 2.6% | 10.5% | 15.5% | 3.8% | **32.4%** |
| | Lack of Funds | Count | 9 | 57 | 63 | 9 | 138 |
| | | % within categories | 29.0% | 33.1% | 24.4% | 25.0% | |
| | | % of Total | 1.8% | 11.5% | 12.7% | 1.8% | 27.8% |
| | Incompetent Teachers | Count | 6 | 14 | 32 | 8 | 60 |
| | | % within categories | 19.4% | 8.1% | 12.4% | 22.2% | |
| | | % of Total | 1.2% | 2.8% | 6.4% | 1.6% | 12.1% |
| | Infrastructure in the Institutions | Count | 9 | 26 | 33 | 8 | 76 |
| | | % within categories | 29.0% | 15.1% | 12.8% | 22.2% | |
| | | % of Total | 1.8% | 5.2% | 6.6% | 1.6% | 15.3% |
| | Practical Training/Internship | Count | 6 | 0 | 39 | 14 | 59 |
| | | % within categories | 19.4% | 0.0% | 15.1% | 38.9% | |
| | | % of Total | 1.2% | 0.0% | 7.8% | 2.8% | 11.9% |
| | Others | Count | 7 | 10 | 15 | 0 | 32 |
| | | % within categories | 22.6% | 5.8% | 5.8% | 0.0% | |
| | | % of Total | 1.4% | 2.0% | 3.0% | 0.0% | 6.4% |
| Total | | Count | 31 | 172 | 258 | 36 | 497 |
| | | % of Total | 6.2% | 34.6% | 51.9% | 7.2% | 100.0% |
| Percentages and totals are based on respondents. | | | | | | | |
| a. Dichotomy group tabulated at value 1. | | | | | | | |

**Table No. 7.19: Table showing ANOVA test**

| Reasons | | | | | |
|---|---|---|---|---|---|
| | Sum of Squares | Df | Mean Square | F | Sig. |
| Between Groups | 5505.955 | 3 | 1835.318 | 9.443 | **.000** |
| Within Groups | 4858.804 | 25 | 194.352 | | |
| Total | 10364.759 | 28 | | | |

**Table 7.20: Table showing Post Hoc Tests (Multiple Comparisons)**

| Dependent Variable: reason LSD | | | | |
|---|---|---|---|---|
| (I) categories | (J) categories | Mean Difference (I-J) | Std. Error | Sig. |
| H.O.D | Present student | -22.66071$^*$ | 7.21517 | **.004** |
| | Past student | -32.62500$^*$ | 6.97051 | **.000** |
| | Industrialist | -3.37500 | 7.52901 | .658 |
| Present student | H.O.D | 22.66071$^*$ | 7.21517 | .004 |
| | Past student | -9.96429 | 7.21517 | .179 |
| | Industrialist | 19.28571$^*$ | 7.75607 | **.020** |
| Past student | H.O.D | 32.62500$^*$ | 6.97051 | .000 |
| | Present student | 9.96429 | 7.21517 | .179 |
| | Industrialist | 29.25000$^*$ | 7.52901 | **.001** |
| Industrialist | H.O.D | 3.37500 | 7.52901 | .658 |
| | Present student | -19.28571$^*$ | 7.75607 | **.020** |
| | Past student | -29.25000$^*$ | 7.52901 | **.001** |
| *. The mean difference is significant at the 0.05 level. | | | | |

The above table 7.18 highlights the reasons for failure of the course under skill development programmes in Goa. The various variables considered for the study were skill education imparted, Syllabus, Implementation of policy, availability of funds, Competency of teachers, infrastructure, practical training and any other reason they felt suitable for failure of the course. The *Cross tabulation* table shows that most of the respondents from different categories perceive it is the government or the system which is responsible for the failure of skill development programmes in Goa. Most of the respondents (32.4%) stated that policy framed by the ministry of skill development programmes is not implemented properly either by the state government or by the institutions. 27.8% of the respondents cited reason that funds are lacking and insufficient to develop infrastructure in the institute. 15.3% of the respondents are of the opinion that infrastructure in the institution is inadequate to create good atmosphere for the students to learn and also to lure students to join skill courses. 14.7% of the respondents are of the opinion that skill education imparted, 13.7% of the respondents feels that syllabus framed is not adequate and need to change as per the need of the industry, teachers (12.1%) and practical training (11.9%) are also some of the reasons for failure of the skill development programmes in Goa. There is no specific reason for the failure of Skill Development Programmes but many reasons make it unsuccessful.

The ongoing students (172 respondents) during personal interview mentioned that skill development programmes are failure in Goa for which lack of fund is an important issue followed by implementation of the policy. It is because the ongoing students feels that development of programmes possible only when the management has enough funds to improve infrastructure, proper laboratory for experiments, sufficient space in the building and other facilities required in the campus. Apart from lack of funds the ongoing students perceive that implementation of policy in the institutions, skill education imparted to students, infrastructure, syllabus framed, untrained teachers and some other factors too are responsible for failure of skill education programmes in Goa. The past students also stated that the implementation of the policy is one of the important reason for failure of skill development programmes in Goa.

Most of the Industrialists during personal interaction revealed that implementation of the policy is the main reason for failure of skill development programmes in Goa which is similar to the perception expressed by institutional heads and past students. It is followed by practical training or internship offered, syllabus and lack of funds, incompetent teachers, infrastructure in the institution, skill education imparted and some other reasons are responsible for failure.

It is interpreted from the above analysis that majority of the respondents from institutional heads, present students, past students and industrialists perceive that policy of skill mission of ministry of skill development is not properly implemented by the state government as well as institutions. Even Head of the institutions feels that the various institutions in the state are not even serious in implementing the policy. So also infrastructure in the institutes is a serious concern stated by institutional heads, present students, past students and industrialist which is unattractive and does not motivate students to join skill courses. Some feel that funds are not sufficient to purchase required equipments and also to improve overall infrastructure of the institute. Even some feels that syllabus framed by the authority is not up to the mark and need to be changed to meet the present challenges of the market and also the expectations of the industries. Some of respondents are of the opinion that skill education imparted is inadequate and the trainers/ teacher are not well trained to teach required syllabus as per the expectations of the students. Practical training in the various institutions is also not properly conducted in the institutions to train students at international level.

The One *way ANOVA* (table 7.19) shows that *p* value (.000) which is less than 0.05 at 5% level of significance which indicates that there is a significant difference in the perception of different categories of respondents towards reasons for failure of skill development programmes in Goa. The ***Post Hoc test*** (table 7.20) shows that there is a significant difference between the HoD and present students (*P* value is .004), HoD and past (*p* value is .000), present students and industrialist (*p* value is .020), past students and industrialists (*p* value is .001),  It means even though all categories perceive that the implementation of policy is an important reason for failure of skill programmes in Goa, among all four categories, HoD and past students are having high significant difference in perception towards reason for failure as compared to present students and industrialist for all the variables tested, **thus based on one way ANOVA test and multiple comparison table, null hypothesis is rejected.**

It is suggested that ministry of skill development should make more provision in the budget to provide funds so that the institutions can make use of that money for the speedy development of skill programmes in Goa and improvement of infrastructure. In fact an attempt is made by the government of India to increase provision in the budget from 1000 cr. in 2013 to 3016/- cr. in 2017-18. So there is a continuous increase in provision for skill development in each and every past budget from last 5 years i.e. from 2013 to 2017. The increase was 3 times more in the budget for Ministry of Skill Development in 2017 as compared to 2013 but still it was one of the lowest budget only one step ahead to the Ministry of Development of North Eastern region with 2682/- crores. The funds allocated for other ministries like Ministry of Human Resource Development is Rs 79686/- crores and Ministry of Urban Development with Rs. 34212/- crores which are in many fold as compared to ministry of skill development in the current budget. It is necessary to consider ministry of skill development at par with other ministries for the overall development of the skill development so that the problem of funds shortage could be solved. The other reason is skill education imparted for which institutions need to look into the matter and see that whether skill courses are really relevant to the present market demand and as per requirement of the industries. So also it is the responsibility of the government, department of skill development and bureaucrats to see that policy should be framed with due care and there should be proper mechanism to check every year whether policy is implemented as it is and in the same manner framed by the department  in the various institutions. It is further suggested that teacher should be trained properly and then employed for the teaching job. The department

should frame guidelines for appointment of the teacher for the betterment of the students. So also curriculum framed by the department of skill development should be changed or modified after every 2 years as per the requirement of the market demand. Infrastructure also should be improved so that students should be proud enough to tell their friends that it is their institute and also feel like good atmosphere in the institute. The other reason is skill education imparted in the institutions which should be relevant to the present market demand and as per requirement of the industries. So also internship should be made compulsory to the all the streams and a separate model should be prepared for each course. Syllabus should be reframed after every 2 years.

## 7.2.4 Perceptions regarding responsibility of failure

**H03: There is no significant difference in the perceptions of different stakeholders regarding responsibility of failure for skill development programmes in the State of Goa.**

**Table No 7.21: Table showing cross tabulation**

| $Responsibility*categories Crosstabulation | | | | Categories | | | | Total |
|---|---|---|---|---|---|---|---|---|
| | | | H.O.D | Present student | Past student | Industr- ialist | |
| Responsibility for failure | Government | Count | 19 | 117 | 157 | 27 | 320 |
| | | % within categories | 61.3% | 67.6% | 60.9% | 77.1% | |
| | | % of Total | 3.8% | 23.5% | 31.6% | 5.4% | **64.4%** |
| | Institutions | Count | 5 | 17 | 31 | 15 | 68 |
| | | % within categories | 16.1% | 9.8% | 12.0% | 42.9% | |
| | | % of Total | 1.0% | 3.4% | 6.2% | 3.0% | 13.7% |
| | Students | Count | 4 | 33 | 31 | 12 | 80 |
| | | % within categories | 12.9% | 19.1% | 12.0% | 34.3% | |
| | | % of Total | 0.8% | 6.6% | 6.2% | 2.4% | 16.1% |
| | Parents | Count | 5 | 5 | 14 | 6 | 30 |
| | | % within categories | 16.1% | 2.9% | 5.4% | 17.1% | |
| | | % of Total | 1.0% | 1.0% | 2.8% | 1.2% | 6.0% |
| | Trainers/ Teachers | Count | 3 | 11 | 36 | 11 | 61 |
| | | % within categories | 9.7% | 6.4% | 14.0% | 31.4% | |
| | | % of Total | 0.6% | 2.2% | 7.2% | 2.2% | 12.3% |
| | Media | Count | 6 | 7 | 10 | 7 | 30 |
| | | % within categories | 19.4% | 4.0% | 3.9% | 20.0% | |
| | | % of Total | 1.2% | 1.4% | 2.0% | 1.4% | 6.0% |
| | Society/ Public | Count | 6 | 13 | 20 | 10 | 49 |
| | | % within categories | 19.4% | 7.5% | 7.8% | 28.6% | |
| | | % of Total | 1.2% | 2.6% | 4.0% | 2.0% | 9.9% |
| | Industrialists | Count | 6 | 5 | 19 | 6 | 36 |
| | | % within categories | 19.4% | 2.9% | 7.4% | 17.1% | |
| | | % of Total | 1.2% | 1.0% | 3.8% | 1.2% | 7.2% |
| | Others | Count | 2 | 12 | 7 | 4 | 25 |
| | | % within categories | 6.5% | 6.9% | 2.7% | 11.4% | |
| | | % of Total | 0.4% | 2.4% | 1.4% | 0.8% | 5.0% |
| Total | | Count | 31 | 173 | 258 | 35 | 497 |
| | | % of Total | 6.2% | 34.8% | 51.9% | 7.0% | 100.0% |
| Percentages and totals are based on respondents. | | | | | | | | |
| a. Dichotomy group tabulated at value 1. | | | | | | | | |

**Table No 7.22: Table showing ANOVA test**

| ANOVA | | | | | |
|---|---|---|---|---|---|
| Responsibility for failure | | | | | |
| | Sum of Squares | Df | Mean Square | F | Sig. |
| Between Groups | 5010.306 | 3 | 1670.102 | 1.909 | .148 |
| Within Groups | 28000.000 | 32 | 875.000 | | |
| Total | 33010.306 | 35 | | | |

**Table No 7.23: Table showing Post Hoc Tests**

| Multiple Comparisons | | | | |
|---|---|---|---|---|
| Dependent Variable: Responsibility for failure (LSD) | | | | |
| Categories | Categories1 | Mean Difference | Std. Error | Sig. |
| H.O.D | Present student | -18.44444 | 13.94433 | .195 |
| | Past student | -30.11111[*] | 13.94433 | .038 |
| | Industrialist | -4.88889 | 13.94433 | .728 |
| Present student | H.O.D | 18.44444 | 13.94433 | .195 |
| | Past student | -11.66667 | 13.94433 | .409 |
| | Industrialist | 13.55556 | 13.94433 | .338 |
| Past student | H.O.D | 30.11111[*] | 13.94433 | .038 |
| | Present student | 11.66667 | 13.94433 | .409 |
| | Industrialist | 25.22222 | 13.94433 | .080 |
| Industrialist | H.O.D | 4.88889 | 13.94433 | .728 |
| | Present student | -13.55556 | 13.94433 | .338 |
| | Past student | -25.22222 | 13.94433 | .080 |
| *. The mean difference is significant at the 0.05 level. | | | | |

The *Cross tabulation* (table 7.21) indicates that those respondents who mentioned that skill development programmes are failure have expressed their opinion on the actual responsible for failure. The respondents were asked to mark the various authorities responsible for failure they are Government system, Institutions, students, parents, Trainers and teachers, Media, Society, Industrialist, and any other.

It means that most of the respondents from different categories perceived that it is the government (64.4%) responsible for failure of skill development programmes in Goa followed by 16.1% students, 13.7% institutions, 12.3% trainers/teachers, 9.9% society/public, 7.2% Industrialist, 6.0% each parents and media and 5% others.

The majority of institutional heads perceive that the government is most responsible for failure of skill development programmes followed by media, society industrialist, institutes, parents, students, trainers and other stakeholders.

The most of the students have mentioned that skill development programmes is successful but still some feels that it is a failure in Goa. Out of the respondents who perceived skill development is a failure, majority of respondents feels that government is highly responsible for failure followed by students, institutions, society, etc.

From the above analysis it gives a clear indication that majority of the stakeholders from four different categories perceive that government and the government system is responsible for overall failure of skill development programmes in the state of Goa. It means that students are not happy with the way government has introduced skill courses and implemented in the state of Goa. The government system is also lacking because the programmes of skill development are launched whereby there no proper publicity is made by the government. So the government should plan properly to put all activities into the system. The courses introduced should be combined together under one Ministry and then different skill courses should be offered to different departments. NSQF in schools and vocational courses fall under directorate of Education, university degrees comes under Directorate of education, technical courses are taken by Directorate of Technical education whereby other course like ITI course, Apprenticeship training, training cum production centre, etc are shared by Directorate of Craftsmen training. Training for security guards is given Goa human resource Skill Development Corporation, some other technical courses are offered by Human resource development foundation society and other initiatives for fisheries, agriculture, urban development, etc are shared by respective departments. So there is no proper system for skill development courses offered by government. Different types of courses are scattered from one department to other department and from one place to another place which make difficult for the students to find skill courses for taking admission. There is no accessibility of skill course on the internet and even there is no proper mechanism to check quality of skill education imparted by the institutions which differs in the institutions while teaching students. There are no proper guidelines for appointment of teachers and so on.  The second category responsible for the failure is a student. Even though courses taught by the teachers are well enough and the learner is not interested in learning then teaching becomes a bucket of waste. The students have agreed that they themselves are also responsible for the failure because some are not interested in acquiring knowledge, they don't attend sessions properly and bunk significant sessions, they don't like to do their home work, most of the students are remains busy in chatting and most important is skill education is not accepted positively by the students to build their career. The category which students hold responsible is trainers and teacher because all trainers are not well trained to teach skill courses. The same teachers who were teaching other general course are given responsibility of teaching skill courses too based on the appointment made by the particular institute and they cannot teach as per the expectation of the students

whereby some teachers are also responsible for the failure of skill course. Teachers are not appointed on full time basis and not paid enough salary as full time teachers. So also some students claimed that institutions are also responsible since they do not take keen interest in imparting skill courses since there are no much facilities and income to the institute. Students have also hold responsible for parents since the parents are not openly accept skill courses and do not allow their children to join for the skill courses. Few students said that parents and public are also equally responsible for failure of skill development programs. The parent's mentality is that their children should do degree courses and they should join for white collar jobs. They feel it is dignified for the parents if their child completes degrees courses and not skill courses. The Public is also still not well matured and not aware of skill courses which discourages child to go for skill courses. Some respondents mentioned that other stakeholders like media, experts too are responsible for overall failure of skill courses in Goa. According to industrialists, they hold responsible to public for not motivating children to accept skill courses. Some respondents feels that institutions are responsible for not promoting skill courses as like other general courses, students and parents are equally responsible for accepting skill courses positively. Few respondents hold responsible to media for not making proper publicity of the mission and industrialist too for not accepting students for training.

The ***One way ANOVA*** (table 7.22) shows that *p* value (.148) which is more than 0.05 at 5% level of significance. It indicates that there is no significant difference in the perception of different categories of respondents towards responsibility for failure of skill programmes in Goa. The ***Post Hoc test*** (table 7.23) shows also that there is no significant difference in perception towards responsibility for failure. Even though all categories perceive that the government is responsible for the failure of skill programmes in Goa, among all four categories, only difference was noticed with HoD and past students towards responsibility for failure for all the variables tested, **thus one way ANOVA test and multiple comparison table shows no significant difference, thus null hypothesis is accepted.**

It is suggested that government should introduce a proper system in which students should be offered job in their respective field after the completion of the course. The duration of course should be changed. There should be a proper mechanism instead of fixed duration to check student's performance for checking their skills and allotting certificates. The grants of NSQF courses in government schools are not allotted as per their requirement in the respective areas, villages and talukas. The institutions should

improve infrastructure and make human friendly administration so that students should feel it is their institute. Students need to accept skill course without any hesitation and with full co-operation. It should not be considered as exceptional only if admission is denied for general courses by the other institutions. So also parents should give full support and cooperation when their child wishes to join for skill courses. Teachers should not take skill courses for granted and only for the sake of salary but they should put up their hard efforts and show keen interest in the subject. The role of media like TV, newspaper hoarding boards, etc is also important in making publicity and awareness of skill mission. Every news channel, entertainment channel, kids channel and compulsorily education channel should put up advertisement and documentaries of skill education to create awareness of skill education. Public and society need to accept skill mission positively and ask their children to take skill courses. Industrialist need to accept students for internship and training whenever the institutes and students approach for training purpose. The mission will hang half the way if industrialists do not allow and support students for training.

The ministry of skill development, government and bureaucrats should conduct a regular checking of institutes to keep system on the proper track. It is not only the duty of government to develop skill programmes but the institutions should offer courses which are relevant to present market demand and students too should show interest in learning and attending regular sessions. Teachers need to be appointed those who are highly qualified and they should be paid equally and similar to teachers of other streams on full time basis. Parents should try to understand the wish of a child and help their children in deciding stream of further studies and respond to them positively. Public should encourage children to take skill courses rather than discouraging them.

**7.2.6 Conclusion:**

**Table 7.24: Table showing a brief summary of perceptions of different stakeholders towards skill development programmes.**

| Aspects of perceptions towards skill development programmes | All Respondents |
|---|---|
| **Perceptions of stakeholders** | **Rejected (sig.)** |
| 1) Introduction of skill development programmes | **.025** |
| 2) Reason for failure | **.000** |
| 3) Responsibility of failure | .148 |

With the help of above table and the hypothesis formed, it can be conclude that the there is a significant difference in case of two variables tested i.e. introduction of skill development programmes and reason for failure whereas no difference was noticed in the variable responsibility of failure in the state of Goa. It is observed that there is a significant difference in perception of different stakeholders towards introduction of skill development programmes in the state of Goa whereby most of the respondents felt that it is successful.

Further with reference to reason for failure too there is a significant difference between the various stakeholders whereby implementation of the policy is an important reason for failure of skill development programmes in Goa.

With regards to responsibility of failure most of the respondents feels that government is responsible for failure. It is noticed that there is a no significant difference expressed by the different stakeholders towards responsibility of failure. Thus based upon the above brief findings, we can conclude that, there is a significant difference in perception of various respondents whereby the *"Perceptions of different stakeholders regarding skill development programmes is significant". It means that the majority of the respondents from different categories show a significant difference towards skill development programmes in Goa. Thus null hypothesis is rejected and alternate hypothesis is accepted.*

This chapter covered detailed data analysis and interpretation of selected sample respondents. The researcher has covered two types of sample respondents i.e. Industrialists and all four stakeholders related to skill programmes. There are questions covered by the researcher which were asked during the field work. The researcher has also covered hypothesis testing of the related sample respondents. The researcher has tried to make cross verify the outcomes of industrialists and other stakeholders to make deep study and to draw reliable conclusion. The researcher has tried to give applied suggestions on the basis of conclusion. The researcher has made differentiation for making detailed and descriptive study of the collected data and extracting results from it.

## 8.1 Introduction:

This chapter covers findings, suggestions, scope for future research and suggestive models for Skill Development Programmes and its impact on Employment and Self-Employment. It covers 62 findings and 41 suggestions regarding the study. The chapter focuses on present scenario of skill development programmes and various impacts on employability faced by students of different streams in the state of Goa. The selected subject is very committed because skill development activity in the state is taking keen interest in developing skills but the various ministries are seen lacking about development of employees within their own department. Skill development has to go a long way to achieve its goal in Goa. The students showed unhappiness with government system prevailing in the state and also with infrastructure, trainers and other facilities available in the various institutes.

## 8.2 Summary:

The topic *"An evaluation of Skill Development Programmes and its impact on Employment and Self-Employment: A study with reference to state of Goa"* was carried out to study six objectives and 19 hypotheses. The entire report was divided into eight chapters. The topic is introduced in Chapter No 1, which gives the background of the topic, objectives, hypothesis, methodology, significance and limitations of the study. The literature review of the topic is presented in Chapter No 2, to establish that the present study does not resemble with any other study in the State, National or International level. The first objective is dealt in detail in Chapter No 3- *"Skill development programmes: An overview"*, *"Perspectives of Institutional Heads for Skill Development Programmes in the State "* is discussed in Chapter No 4. Chapter 5 covers the *"attitude of ongoing students towards facilities available and curriculum"* while Chapter 6 deals with *"Skill Development Programmes and its impact on Employment and Self-Employment"*, chapter 7 focuses on "Gap of human resources and perceptions of skill development programmes" and the final conclusion is drawn in chapter 8.

## Table 8.1: Tabular representation of the Hypothesis

| Sr. No | Aspects of Skill development Programmes Tested based on: | Gender | Locality | District | Taluka | Stream | Trade |
|---|---|---|---|---|---|---|---|
| 1 | Opinions of Institutional Heads | Accepted | Accepted | Accepted | Accepted | Accepted | ----- |
| 2 | Attitude of ongoing students | Accepted | ---- | Accepted | Rejected | Rejected | Rejected |
| | **Aspects of impact on employment and self-employment based on:** | | | | **Stream** | **Trade** | **Reason** |
| 3 | Status of Past students | | | | Rejected | Rejected | Rejected |
| | **Aspects of requirement and Availability of human resource based on:** | | | | | **Skills** | **Qualification** |
| 4 | Gap between Requirement and availability | | | | | Rejected | Rejected |
| | **Aspects of perceptions regarding skill development programmes based on:** | | | | | **All Respondents** | |
| 5 | Perceptions of stakeholders | | | | | Rejected | |

In order to test the hypothesis, several statements were designed. The statements were tested individually and then the result was compiled to accept or reject the hypothesis. The consolidated result is given in the **Table No. 8.1.** The overall decision on acceptance or rejection is taken based on the total number of acceptance or rejection of individual statements. This result is shown in **Table no. 8.2.**

**Table 8.2: Tabular representation of the Hypothesis Testing Carried out**

| H0 | Aspects of Skill development Programmes Tested based on the Objectives | Gender | Locality | District | Taluka | Streams |
|---|---|---|---|---|---|---|
| 1 | **Opinions of Institutional Heads** | **Accepted** | **Accepted** | **Accepted** | **Accepted** | **Accepted** |
| | **1**) Students acquire enough job skills after the completion of the course. | .188 | .558 | .592 | .269 | .640 |
| | 2) Training/internship provided is sufficient for them to place on the job. | .093 | .967 | .901 | .338 | **.024** |
| | 3) Confident that the trained students are competent to take up the job. | .294 | .980 | .705 | .101 | .185 |
| | 4) Curriculum framed by the concern authority is relevant to the job required by the industries. | .345 | .957 | .701 | .352 | .275 |
| | 5) Changes in course should be made to meet the expectation of the employer. | .874 | .352 | .382 | .154 | **.035** |
| | 6) Need of the hour to proper implementation of skill development mission in the state. | .464 | **.024** | .235 | .888 | .091 |
| | 7) Skill development courses are better than general courses to get jobs. | .642 | **.049** | .579 | .612 | .727 |
| | 8) Skill courses has very much scope in the present employment field. | .147 | **.044** | .966 | .962 | .985 |
| | 9) Students with skill courses are more competent than the general stream. | **.044** | .094 | .880 | .229 | .573 |
| | 10) Trained students get job soon after completion of course. | .307 | .776 | .961 | .633 | .797 |
| H0 | Aspects of facilities available and curriculum tested based on the Objective | Gender | Districts | Talukas | Streams | Trades |
| 2 | **Attitude of ongoing students** | **Accepted** | **Accepted** | **Rejected** | **Rejected** | **Rejected** |
| | 1) Class rooms | .817 | .103 | **.000** | **.000** | **.000** |
| | 2) Library facility | .115 | **.008** | **.000** | **.000** | **.000** |
| | 3) Teaching aids | .072 | .404 | **.030** | **.000** | **.000** |
| | 4) Infrastructure facilities | **.007** | .803 | .194 | **.000** | **.000** |
| | 5) On the job training/ internship | **.012** | .444 | **.000** | **.000** | **.000** |
| | 6) Latest tools and equipments. | **.010** | .160 | **.045** | **.000** | **.000** |
| | 7) Teachers/ Faculty of the Course | **.000** | **.018** | .033 | **.000** | **.000** |
| | 8) Instructors for internship/training places | **.035** | .417 | **.000** | **.000** | **.000** |
| | 9) Theory teaching in the class | .617 | .848 | **.007** | **.000** | **.000** |
| | 10) Practical training in the institution | .780 | .280 | .119 | **.000** | **.000** |
| | 11) Syllabus framed for the course | .148 | **.010** | **.000** | **.000** | **.000** |
| | 12) Overall Curriculum of the course | .241 | .649 | **.016** | **.000** | **.000** |
| H0 | **Aspects of impact on employment and self-employment** | | | Stream | Trade | Reason |
| 3 | **Status of Past students** | | | **Rejected** | **Rejected** | **Rejected** |
| | 1) Self- Employment and Job Employment | | | **.000** | **.000** | **.000** |
| | 2) Self-Employment (Full time/part time) | | | **.000** | **.010** | --- |
| | 3) Job-Employment (Full time/Part time) | | | **.000** | **.011** | --- |

| H0 | Aspects of requirement and Availability of human resource | Skills | Qualific-ation |
|---|---|---|---|
| 4 | **Gap between Requirement and availability** | **Rejected** | **Rejected** |
| | 1) Specialized skills | **.000** | ---- |
| | 2) Highly Skilled | **.000** | ---- |
| | 3) Semi Skilled | .541 | ---- |
| | 4) Minimally Skilled | **.000** | ---- |
| | 5) NSQF certificate Holders | ---- | **.000** |
| | 6) Vocational certificate Holders | ---- | **.001** |
| | 7) PG Degree holders | ---- | **.032** |
| | 8) ITI  Certificate holder | ---- | .634 |
| | 9) Diploma Holders | ---- | **.000** |
| | 10) HRDFS Technical Students | ---- | .634 |
| | 11) EDP Trainees | ---- | .078 |
| | 12) Security Guards | ---- | .270 |
| | 13) Tailoring and Embroidery trainees | ---- | **.000** |
| | 14) Apprentices | ---- | **.000** |
| | 15) Other trainees | ---- | **.001** |
| H0 | **Aspects of perceptions regarding skill development programmes** | | **All Respond-ents** |
| 5 | **Perceptions of stakeholders** | | **Rejected** |
| | 1) Introduction of skill development programmes | | **.025** |
| | 2) Reason for failure | | **.000** |
| | 3) Responsibility of  failure | | .148 |

## 8.3 Findings:

As stated before, for each objective a separate hypothesis was formed and it was set in separate chapters. The hypothesis were analyzed with the help of appropriate statistical tools and tested separately to draw the conclusion.

**8.3.1: Chapter - 3** titled *"Skill development programmes: An overview"* deals with the first objective of the study. It depicts the current scenario of skill development programmes in the state of Goa for which the collected data was analyzed on the basis of **Institutions** (Streams, Location, District and Taluka), **Trades** (Stream, Location, District and Taluka) and **Enrolment** (Stream, Year, Location, District and Taluka). No hypothesis was formed for the objective and the analysis were made with the help of secondary data collected from various Government departments and institutions in the state of Goa. Following are the brief findings;

1. The study reveals that the majority **of the** institutions offering skill programmes are HS (31.9%) followed by HRDFS (22.6%) and the least institutes are EDP and GHRSDC (0.4%) each.

2. It is found that most of the institutions involved in skill development programmes are in rural area as compared to urban area. The major difference is identified in case of High Schools as only 15% institutes located in Urban area and 85% institutes located in Rural area. So also UNID, EDP and GHRSDC 100% institutes are in Urban area and no institutes are located in Rural areas. Most of the TRCPC are in Urban (88%) and only 12% in Rural whereas in case of Industries majority of the institutions are in Urban area (83%) and very few in Rural (17%).

3. The majority of the institutions are located in North District (60%) whereas in South District (40%). A major difference was found in case of UNID, GHRSDC, EDP, TRCPC whereas minor differences are found in other streams.

4. it is found that majority of the institutions located in different talukas are in Salcete (17.9%) followed by Tiswadi (12.8%) and least of the institutes are located in Dharbandora (1.7%).

5. It is found that most of the courses are offered by HRDFS streams (22%) followed by ITI (16%) and the least Trades are offered under GHRSDC and TRCPC (1%) each.

6. The location wise analysis reveals that most of the trades (72%) are offered by institutions from Urban area while less trades (56%) are offered in Rural area. A major difference was identified in case of UNID, EDP and GHRSDC as Urban (100%) and Rural (0%) while ApprT more trades are offered in Urban (70%) as compared to Rural (47%) and some minor differences are found in other streams.

7. The most of the courses (76%) are offered in North District as compared to South district (53%). A difference found mainly in case of UNID, GHRSDC as North offers (100%), and South (0%) whereas in case of EDP 100% trades offered in South and North (0%). The rest of the institutes like HS show North (100%) South (60%) HSS North (94%) and South (65%), ITI, HRDFS, Industries and OITSG are also showing minor difference in the courses. TRCPC shows (80%) in North and (20%) South whereas minor difference were found in case of other streams.

8. It found that most of the taluka wise trades offered in Tiswadi (46%) followed by Bardez (43%), Salcete (40%) and least of the course are offered in Dharbandora (1%).

9. The enrolment for five years (2011-2012 to 2015-16) shows that there is an increasing trend of the students in 2015-16 as compared to 2011-12. The highest enrolment of students during the past five years was found in the year 2014-15 due to overall increase of students for all the streams and also due to introduction of new streams like NSQF courses for HS and security guards training by GHRSDC. The lowest number of enrolment was found in the year 2013-14.

10. It is found that most of the students (stream wise) are enrolled for ITI (35.2%) followed by Vocational (27.9%) and the least number of students are enrolled in EDP (1.6%).

11. The location wise enrolment of the students found to be more in rural area (57.9%) and less in urban area (42.1%). A major difference was found in case of GHRSDC and TrCPC where in urban area enrolment is just (9.1% and 9.2%) and in rural area (90.9% and 90.8%) respectively and a minor difference was also found in other streams.

12. It is found that most of the students are enrolled in North district (60%) and (40%) in South district. The major differences were located in case of UNID, GHRSDC as North shows (79.4% and 78.8%) whereas in South (20.6% and 21.2%) respectively and rest of the streams HS, HSS, ITI, HRDFS, TrCPC, Industries and OITSG  shows some minor difference in two different districts.

13. It is found that most of the students are enrolled in Salcete taluka (19.7%) and least number of the students enrolled in Sanguem taluka (1.3%). The remaining streams like Bardez, toswadi, Bicholim and Ponda have shown more or less similar trend for the enrolment of students.

**8.3.2 Chapter - 4** titled as *"Perspectives of Institutional Heads for Skill Development Programmes in the State"* deals with the second objective of the study which focuses on analyzing the perspectives of Institutional Heads on skill development programmes in Goa in terms of ten different aspects. The hypothesis formed was: *"Perspectives of Institutions Heads for skill development programmes is favorable".*

The data collected was organized and classified based on Gender (Male and female), Location (Urban and Rural), District (North and South), **7** Talukas (Pernem, Bardez, Tiswadi, Ponda, Salcete, Mormugao and Dharbandora), and **10 Streams** (HS, HSSC, UNID, ITI, HRDFS, EDP, GHRSDC, TrCPC, APPRT, OITSG). The statistical tools such as *Percentage, Mean score, Independent sample t-test and one-way ANOVA* were used to analyze and test the hypothesis. The findings are summarized as under:

1. It is found that most of the institutions have started skill courses well before 2013-14 in Goa and moving in a right direction by taking a significant step to commence skill courses in the various institutions in Goa. The institutions too have overwhelmingly accepted the challenge of skilling youth of Goa to meet the expectations of the industries.

2. It is found that majority of the institutes do not have MoU with the industries to train students on-the job or to provide internship or some short term training courses to get better knowledge in the respective course taught in various institutions.

3. It is observed from the study that most of institutions do not have placement cell for the students to place them on the job which is against the interest of the students except few institutes. The students need to find their job on their own for getting job to make their career.

4. It is found that majority of the institutional heads are agreed and strongly agreed (78.8%) to the students acquire enough job skill through skill courses after the completion of the course. They are the respondents of male, rural, south district, Bardez taluka and streams of UNID, EDP, GHRSDC and ApprT are most favourable for the fact that the students acquire enough job skill required for the job through skill courses after the completion of the course.

5. The study reveals that majority of the respondent (43.8%) and (16.2%) of the respondents agreed and strongly agreed respectively to the internship provided in the industry or practical training by the institutes are quite sufficient for them to be placed on their respective jobs. Even though the Head of the Departments also believe that it is necessary to make internship mandatory atleast for one term for each and every trade irrespective of any stream. The male respondents as well as respondents from Rural area, North District, Ponda taluka and streams of UNID, GHRSDC are most favourable to the internship and practical training provided by the industries and respective institutions.

6. It is found from the institutional heads that 77.8% are favourable and have confidence in the students to take up job in their respective fields. It indicates that the majority of the respondents i.e. Male, Urban, South District, Bardez Taluka and respondents of UNID, ITI, EDP, GHRSDC, ApprT and OITSG are MORE favourable to the students confidence for taking up job in their respective skill courses.

7. The study reveals that 53.8% of the respondents agreed and 20% strongly agreed which means that the majority of the respondents (i.e. 73.8%) of the respondents are favourable. It shows that the curriculum framed by the concerned authority is relevant as per the requirement of the industries. The Male respondents, Urban area, South District, Salcete taluka and respondents from UNID, EDP and GHRSDC and ApprT streams are favorable towards curriculum framed by the concern authority is appopriate to the requirement of industries.

8. The study reveals that the curriculum framed by the authority is good but most of the respondents (61.3%) feel that the courses should be modified every year from time to time as per the requirement and changing demands of the employers. They are the male respondents as well as most of the respondents from Rural area, North District, Bardez taluka and respondents from UNID, EDP and GHRSDC and ApprT streams are most favorable to make changes in the course.

9. It is found that the majority of the respondents (95%) strongly opined that skill development mission is still not yet fulfilled and need to be implemented properly implemented in the state of Goa with due care, so that students may get utmost

benefit out of it to develop their skills and make them competent to get jobs. They are the Female respondents as well as most of the respondents from Rural area, North District, Ponda taluka and respondents from HSSC, UNID, EDP, GHRSDC, TrCPC, ApprT and OITSG streams are the respondents who feels that there is a need to make proper implementation of skill development mission in Goa.

10. The study indicates that most of the respondents (80%) are in the favour of skill courses that they are better than the general courses. The institutional heads feels that students who join skill courses help them to get jobs easily and faster as compared to students from general courses. More of Male respondents, Rural respondents, North District, Bardez taluka and respondents from UNID, EDP, GHRSDC, ApprT and OITSG streams are in favor of skill development courses in the state of Goa.

11. It is found that the majority of the respondents (i.e. 85%) opined that there is a lot of scope for skill courses in the present employment field for the students who take up skill courses which has a demand for jobs in the industries and employment market. They are the Male respondents as well as most of the respondents from Rural area, South District, Dharbandora taluka and respondents from UNID, EDP, GHRSDC, ApprT and OITSG streams are the respondents who feels that there is a good scope for skill courses in the industries.

12. The study shows that the majority of the respondents (70%) are perceived to be students with skill courses are more competent than the general streams when they take up job. It can be seen from the study that most of the respondents from Rural area, South District, Salcete taluka and respondents from UNID, EDP, GHRSDC and ApprT streams who opined that skill courses students are very competent than general courses.

13. It is found that most of the respondents (58%) are favourable towards students passing out from skill courses gets job easily and soon after the completion of their course. They are the Male respondents as well as most of the respondents from Rural area, North District, Dharbandora taluka and respondents from UNID, ITI and HRDFS streams are the respondents who feels that trained students get job soon.

**8.3.3 Chapter - 5** titled *"Attitude of ongoing students towards facilities available and curriculum."* deals with the third objective of the study and focuses on analyzing the attitude of ongoing students towards facilities available and curriculum with respect to 12 attributes. The hypothesis, *"Attitude of On-going students towards facilities available and curriculum is satisfactory"* was formed for which information was collected using the Likert scale.

The data collected on the above attributes was organized and classified based on **Gender** (Male and female), **District** (North and South Goa), 12 Talukas (Pernem, Bardez, Tiswadi, Bicholim, Sattari, Ponda, Salcete, Quepem, Mormugao, Sanguem, Dharbandora and Canacona), **10 Streams** (HS, HSSC, UNID, ITI, HRDFS, EDP, GHRSDC, TrCPC, APPRT, OITSG) and 41 trades. The statistical tools such as *Percentage, Mean score, Independent sampleit' test, One way ANOVA and Post hoc* test were used. The findings are summarized as follows;

1.  It is found that students from all the streams are fully confident in selecting the courses on their own and not dependent on parents or someone else while deciding a course. The other factors like Friends, media, parents and publicity of the course plays a minor role in choosing vocational courses.

2.  The study reveals that majority of the students claimed that the prevailing condition of the class rooms provided by the institutions is satisfactory. It is found that HS and HSSC class rooms are in good condition while ITI class rooms were improved recently. The EDP class rooms are really excellent whereby most of the UNID students were dissatisfied. Trainees of TrCPC disclosed that classes are conducted in a house containing one room which is taken on rental basis without any much more facilities. The Male students and the students of South district while Talukas of Bicholim, Dharbandora, Stream of EDP and Trades of IT, PLBR, WLDR, HM, EM, DTPO, HN, BTCN, ED, AGRIT, T&FP are highly satisfied with the class conditions prevailing in the institutions.

3.  It is also observed from the study that most of the institutions do provide library facility in their respective institution but students are not satisfied. UNID students avail higher standard of library facilities in Goa followed by HRDFS students. But students of 4 streams namely GHRSDC, TrCPC, ApprT and OITSG trainees do not avail of qualitative library facility. The trainees cannot develop their knowledge due

to lack of library facilities available at the training centers. They are the Male students and the students of South District while Talukas of Bardez, Dharbandora and Streams of HSSC, UNID and Trades of IT, MCA, MFS, DTPO, HN, ED, ST are highly satisfied and receive the quality of library facility.

4. It is found that majority of the ongoing students said the institutions do have proper provision of equipments for teaching aids but they are not highly satisfied. This means that most of the Males students, South students, Dharbandora, Salcete, Bardez talukas and Stream of EDP and Trades of IT, AM, WLDR, DTPO, HN, ARM, BTCN, ED, DM, LA, EM, PLBR, AGRIT, ST are more satisfactory with facilities of equipments for teaching aids used in the institutions while rest of them are not satisfied. It is noticed that trainers from Trcpc do not make use of any teaching equipments but only stresses on practical teaching.

5. It is observed from the study that most of the students commented to be satisfactory with the infrastructure facility provided by the institutions. It is noticed that government and private institutions have made rigorous improvement in the infrastructure to attract students in their own institute. The Government has offered funds in the past years for the improvement of infrastructure which benefited most of the institutes to build their premises. Even some buildings of the institutes are shifted to some other places to provide better infrastructure to the institutions. It is found that majority of male students and the students of south district while talukas of pernem, sattari, sanguem, dharbandoraand, streams of HS,HRDFS and trades of IT, AA, ELTR, EM, BA, DTPO, HN, ARM. BTCN, ED, DM, LA, EM, PLBR, CNC, AGRIT, ST are highly satisfied.

6. It is found that most of the students are unsatisfied with on-the job and internship provided in the industries or at work place. It can be interpreted that most of the students from different streams receive better internship or on-the job training during the course work. The students of all the streams except trainees from OITSG are not sent for any sort of training in the industries in their respective field. The Female students and the students of South District while Talukas of Bicholim, Dharbandora, Streams of ITI, HRDFS and Trades of IT, AA, ELTR, WLDR, HM, HN, ARM, BTCN, FTR, DM, EM are the only satisfied students with on-the job training and internship provided by the industries.

7. The study shows that majority of the students are not satisfied with the facility of latest tools and equipments in the institutions allowed to use in the institutions. It is also noticed that each and every institution is trying their best to provide upgraded tools and equipments for the benefit of the students and also to make students highly skilled. The study reveals that ITI students are allowed with new and latest tools and equipments followed by students from other streams while ApprT trainees are still trained on the same old machines and equipment used for several years before by the industrialist. The Male students and the students of South District while Talukas of Bicholim, Quepem, Sanguem, Dharbandora, Stream of HS, HRDFS, ApprT, OITSG and Trades of IT, HC, AET, ISR, WLDR, DTPO, HN, ARM, BTCN, ELTR, LA, EM, PLBR, CNC, AGRIT are the most satisfied students with the latest tools and equipments allowed to use in the institutions.

8. It is found that majority of the students are satisfied with trainers and faculties teaching in the various institutions. It shows the teachers/faculties teaching in the institutes are excellent, well trained and competent enough to accept responsibility of the current mission of skilling India. Few students from HSSC, UNID, ITI, TrCPC and ApprT streams are unsatisfactory. The Female students, students from South District and Talukas of Quepem, Mormugao, Sangem, Dharbandora and Canancona while Streams of HS, HRDFS, EDP, GHRSDC, ApprT, OITSG and Trades of IT, HC, AM, OSS, AET, AA, ELTR, WLDR, FTR, DM, EM, CA, BA, DTPO, HN, ARM, BTCN, ED, SG, WLDR, FTR, DM, ELTR, LA, EM, PLBR, CNC, AGRIT, ST, T&EP are the most satisfied students with trainers and faculties in the institutions.

9. The study found that most of the ongoing students are quite satisfied with respect to instructors for internship or at training places. It means the trainers or faculties teaching in the various institutions are adequate and competent enough to teach various courses in different institutions. The Female students, South District, Talukas such as Bicholim, Quepem, Streams of ITI, HRDFS and Trades of IT, BA, DTPO, HN, ARM, BTCN, WLDR, FTR, DM, DM, EM,  PLBR , CNC, AGRIT,  are the most satisfactied with instructors for internship.

**10.** It is found that most of the students are satisfied about the theory teaching in the class. The overall results reveals that Majority of Female students, students of South District, Bicholim, Sattari, Quepem, Sanguem, Dharbandora, Canacona taluka, Streams of EDP, GHRSDC, TrCPC and trades of IT, HC, CGDM, ISR, AA, ELTR, PLBR, WLDR, DM, HM, DTPO, HN, ARM, BTCN, ED, SG, T&E, WLDR, DM, LA, EM, PLBR, CNC, ST, T&EP are highly satisfied towards theory teaching in the class.

**11.** It is observed from the study that majority of the students are highly satisfied towards practical training offered by the various institutions. It shows most of the institutes are emphasizing on offering advance training to the students in their respective trade so that students can successfully take up job in their respective field. The institutions are taking keen interest and efforts in providing quality practical training for students to learn the required job skills in advance during the course and give them confidence in taking up jobs in their respective field. The Male students, North District students, students of Bicholim, Sattari, Quepem, Sanguem, Dharbandora, Canacona, Streams of HS, ITI, HRDFS, EDP, GHRSDC, TrCPC, ApprT, OITSG and trades of IT, HC, OSS, AET, AA, CT, MREEA, PLBR, WLDR, DM, HM, EM, CA, BA, DTPO, HN, ARM, BTCN, ED, SG, T&E, WLDR, FTR, DM, ELTR, LA, EM, PLBR, CNC, AGRIT,  T&FP are more satisfied with the practical training provided in the institutions.

**12.** The study reveals that the majority of the students are unsatisfied with the syllabus framed for the course by the concerned authority. The students from some streams disclosed that syllabus framed for the course is good but it is necessary to update every year as per the current changes in the market and expectations of the employers. It is the Male students, South District students, Pernem, Sattari, Sanguem and Canacona taluka students, Streams of HS, ITI, HRDFS, EDP and trades of IT, HC, AM, AA, ELTR, COPA, WLDR, FTR, DM, EM, CA, BA, DTPO, ARM, BTCN, DM, LA, EM, PLBR, CNC, ST are most satisfied towards syllabus framed for the course.

**13.** It is found that attitude of most of the students with respect to curriculum framed by the concerned authority for the course is inappropriate and unsatisfactory. It is necessary to change as the years passes with respect to curriculum framed for the course. The Female students, South District students, students of Pernem, Bardez, Salcete, Quepem, Dharbandora, Canacona, Streams of HS, HRDFS, EDP, GHRSDC, ApprT, OITSG and trades of IT, HC, AM, OSS, AA, CT, ELTR, COPA, EM, BA, DTPO, HN, ARM, BTCN, ED, FTR, DM, ELTR, LA, PLBR, AGRIT, T&FP are mostly satisfied with the curriculum of the course.

**8.3.4 Chapter - 6** titled *"Skill Development Programmes and its impact on Employment and self-Employment"* deals with fourth objective which focuses on analyzing the impact of skill development programmes on present status of past students with respect to 4 variables. The hypothesis, *"Impact of Skill development programmes on Employment and Self-Employment is insignificant"* was formed.

The data collected for the purpose was organized and classified based on **10 Streams** (HS, HSSC, UNID, ITI, HRDFS, EDP, GHRSDC, TrCPC, APPRT, OITSG), 43 trades and 4 reasons for joining the course. The statistical tools such as *Percentage, Mean score, Independent sample t-test, one-way ANOVA, Post hoc test and chi-square test* were used to analyze the data. The given below are some of the important findings;

**1.** It is found that majority of the students have started self employment recently and the remaining from one year to 2 years. No students were found from NSQF who have started any one business yet but all have joined for further studies. Few students from other streams have owned their business where majority of them have started during last 6 months they are from Insurance course. A good number of trainees from Apprenticeship training were found who started their business for last 2 years and 1 year especially from electrician and CNC course. Most of the trainees of agriculture from OITSG have started business before 2 to 3 years while animal husbandry from last one year and urban development from last 6 months. The HRDFS students have 100% started own business before 2 years who are mostly from DTPO trade.

**2.** It is found that none of the NSQF joined for the job whereas most of the vocational and UNID students got jobs within six months period followed by a good number of students within one year and at the most few students had to struggle for job for one year whereby nobody waited for 3 years. Most of the trainees from EDP, Trcpc, ApprT and OITSG have been employed within 6 months and very few joined within years while no trainees has spent more than 1 year to get the job. Most of the vocational students from different course have received job within six months except two course namely A/c and auditing, marketing and salesmanship had to wait for one year. Most of the trainees of ApprT who are employed after six months and within 1 year are CNC apprenticeship. Trainees of OITSG from agriculture more trainees have joined for the job than animal husbandry and urban development within 6 months while the rest of the trainees from all training courses were employed within a period of 1 year except one trainee from Urban Development trade.

**3.** It is found that most of the trainees from EDP, TrCPC, ApprT are satisfied about their present job while some of the trainees from EDP and TrCPC are highly satisfied about the job they carry out. Most of the GHRSDC trainees have shown dissatisfaction for their job while trainees from OITSG are mostly neutral which means most of them are neither satisfied nor dissatisfied for the jobs who are 100% from agriculture course. The level of satisfaction in doing agriculture job is deterioting day by day and no one like to do agriculture job.

**4.** It is found that majority of the students from different streams disclosed that there job related to the studies they have learnt except EDP course trainees denied that their job is different from their course studied by them. All 100% UNID, GHRSDC, TrCPC students/trainees have fully agreed that their job is 100% related to the respective field of studies. But vocational students from 3 courses such as automobile engineering, CGDM and A/c and auditing majority claimed that their job has no relation to the studies or course they have studied in the past. Majority of ITI and HRDFS students disclosed that their jobs are related to their studies except COPA students and refrigerator from ITI and HRDFS respectively. So also some trainees from courses like welder, CNC, Hotel management, electrician and PLC from ApprT and animal husbandry and urban development from OITSG disclosed that they are doing some different job as compared to their course studied by them.

5. It is found that most of the students from different streams mentioned that they are unemployed due to lack of expected salary which is the main reason of past students being unemployed followed by unwillingness to join for the job, lack of finance, no confidence in themselves, startup problems, lack of government support and unwillingness to start their own business.

6. It is found that most of the students from different streams have joined for the job but very few students have started their own business and also joined for the higher studies. A good number of students are unemployed too. The study shows a significant impact of skill development programmes on employment (job employment as well as self-employment).

7. The study found that there is a significant impact of skill development programmes on employment (self-employment as well as job employment). The streams such as HSS, ITI, HRDFS, TRCPC and OITSG have more impact on full time self-employment whereas no impact is noticed on part time self-employment in any stream. The students of streams like HSS, ITI, HRDFS, and ApprT show impact on full time job employment whereas HSS, ITI, and HRDFS on part time job employment.

8. All the students from NSQF stream have pursued for higher studies, vocational students have also shown interest in going for higher studies whereas majority of UNID, ITI, HRDFS students have joined for job employment. 43% of vocational and 100% of UNID have joined for employment and self employment respectively. The trainees of EDP are GHRDC are employed on job. The Trcpc are mostly unemployed whereas ApprT are job employed while OITSG trainees are self employed. Lab Assistant trainees are mostly pursuing higher education whereas CNC trainees are employed for job and PLC trainees are unemployed.

9. It is found to be a significant impact on self-employment and job employment ($p$ is 0.000 and 0.010) respectively at 5% significant value which is less than 0.05 at 5% level of significance. It shows that there is a high significant impact of Skill development programmes on job employment as compared to self-employment (stream wise and trade wise) in the state of Goa.

10. The study shows a significant impact on employment and self-employment for trades like livestock training on fulltime employment and Automobile on Part time self-employment. So also there is a high significance of various trades on like OSS, MCA, Electrician, Plumber, Fitter, Hotel management, DTPO, Home Nursing, EDP, Security Guards, CNC operator on full time employment and courses such as welder and fitter on part time job employment.

11. It is found that majority of the past students chose a course with an intention to take up a job whereas some other students want to go for higher studies and few students have shown willingness to start their own business. The study signifies that there is a significant association between the reason for joining the course and present status of the students with respect to job employment, self-employment and pursuing higher education. Most of NSQF students choose a course since there is a scope for higher studies followed by scope for job and self employment. In case of vocational, majority of the past students would like to go for job followed by higher studies and scope for self employment.

12. It is found that most of the UNID students joined because there is a scope of self employment and rest of the students due to scope for job. Most of the ITI and HRDFS students joined with the intention to join for the job followed by scope for self employment, higher studies and others. Majority of EDP trainees, GHRDC trainees apprenticeship trainees from most of the training course joined due to scope for job employment while trainees from Trcpc and OITSG most of the course students had joined for the purpose of starting their own business.

13. It is found that majority of the students from different streams are doing their job which are related to the studies they have studied except EDP course trainees stated that their job is different from their course studied by them. It shows that the courses studied by the various students from different are useful in getting job in the industries. It also reveals that there is a good for the skill courses taught by the various institutions to get in the industries. The EDP students stated that they are employed but it is not because skill course they have studied but other qualification they possess.

**8.3.4 Chapter - 7** titled as *"Gap of Human Resources and Perceptions of Skill Development Programmes"* deals with fifth and sixth objective of the study. It focuses on analyzing the gap of human resource and perception of different stakeholders towards skill development programmes with respect to the skill issues in the state of Goa. The hypothesis framed was *"Requirement of human resources to the availability of manpower is adequate"* and *"Perceptions of different stakeholders regarding skill development programmes is not significant"* respectively. The brief summary of findings is given below;

The study reveals that majority of the firms / companies disclosed that they take students for training like on-the job, internship, apprenticeship, etc. while few companies do not have facility of training for students. Both type of companies whether start-up companies or existing industries, they take students for training during the course or after completion of course before recruiting on the job.

1. It is found that majority of the industrialist provides on the job training followed by internship and apprenticeship and few some other type of training. Most of the industrial companies provide all types of training whereas few starts up companies accept students for internship and apprenticeship type of training besides on-the job training.

2. It is found that industrialist are positive in accepting students for training which has increased 3.5 times in 2015 as compared to 2012 so also startup companies are highly positive in accepting students in many fold as compared to other industries.

3. It is found that most of the students were employed in the year 2015 compared to corresponding previous years. The trend of employment has grown to 3.3 times in 2015 compared to 1.6 times and 1.1 times in the years 2014 and 2013 respectively as compared to 2012. It is seen from the study that Startup companies are better than industries for employing students after on-the job training.

4. It is found that most of industrialists prefer skilled candidates for the job followed by trained and experienced. There is no much difference between industries and startup companies' in their expectation of candidates for the job.

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**5.** It is found on the basis of skills that requirement for specialized skilled and highly skilled workers is high and their availability of workers is low whereas demand for semiskilled workers is high but their supply is also equally high. The requirement for minimally skilled worker is low but such workers are atleast available in the market. It means there exist a negative gap in-between requirement and availability of specialized and highly skilled workers whereas a positive gap is observed in case of minimally skilled worker and no difference for semi-skilled workers.

**6.** The study reveals on the basis of qualification that there exist a negative gap or difference in the case of Vocational, Diploma holders, HRDFS students and apprentices where there is high requirement of workers but the availability is low. It means that is a shortfall of trained students. It is therefore necessary to either increase the number of institutions or increases the number of seats in the same institutions. In some cases availability of workers is high i.e. vocational, security guards, tailoring and OITSG so there is no need of putting some extra efforts. In case of NSQF certificate holders where there is no requirement and in case of ITI certificate holders' requirement and availability of workers is high.

**7.** It is found from all the stakeholders (HOD, ongoing students, present students and industrialists) that the skill development mission is successful in the state of Goa, but still Skill mission in Goa needs to go a long way to become really successful in toto. Industrialists thinks that lot of improvement and development need to be made in skill development programmes to make Skill India Mission successful.

**8.** It is found that the important reason for the failure of skill mission is due to improper implementation of policy followed by lack of funds, infrastructure, skill education imparted, syllabus, incompetent trainers, practical training imparted in the institution and some other factors like passion for study, attractiveness of the course are factors which are also contributing to the failure of the programmes. There is an urgent need to revise the policy, improve infrastructure in the institutes, provide more funds and modify syllabus, provide adequate training to all the teachers and sufficient training to the students.

**9.** It is found that most of the respondents feels that government is a highly responsible authority for failure of skill courses followed by students, institutions, society and industrialist whereas trainers, media, parents and  are partially responsible for the failure if skill development programmes in Goa.

**10.** It is found that most of the employer find it difficult to get experienced candidates followed by technically skilled degree holders, ITI students, vocational, apprenticeship, trainees, unskilled and other type of candidates there is no much difference in the two different categories of companies finding it difficulty to get skill candidates for the job.

### 8.4 Conclusion of the study

In the present study a separate hypothesis were formed for each objective which were arranged in separate chapters except for first objective no hypothesis were framed. Each hypothesis was then analyzed and tested separately with the help of a suitable statistical tool to draw the conclusion.

**Chapter -3** titled *"Skill development programmes: An overview"* deals with the overview of skill development programmes at international, national and state level. It also covers the first objective of the study which is verified on the basis of 3 variables such as institutions, trades and enrolment. The data was collected from the various government departments, educational institutes, skill training departments and industries from all over Goa.

From the consolidated data it can be concluded that *"skill development programmes are unequally distributed"* based on location, district and taluka. The allotment of institution is one of the significant reason due to which trades and enrolment in different streams, locality, district and taluka are also not equally distributed in the state of Goa.

**Chapter -4** titled *"Perspectives of Institutional Heads for Skill Development Programmes in the State"* deals with the second objective of the study which consists of various perspectives of the institutional heads on different variables towards skill development programmes in Goa. For the purpose, the data was collected from the institutional heads from all over the Goa.

The hypothesis such as: ***"Perspectives of Institutional Heads for skill development programmes is favourable"*** was formed based on the Gender, Locality, District, Taluka and Stream. This hypotheses were tested with the help of statistical tools such as *Mean, Independent sample test and One way ANOVA test*. Information was collected on the basis of ten aspects such as *Students acquire enough job skills after the completion of the course, Training/internship provided is sufficient for them to place on the job, Confident that the trained students are competent to take up the job, Curriculum framed by the concerned authority is relevant to the job required by the industries, Changes in course should be made to meet the expectations of the employers, Need to proper implementation of skill development mission in the state, Skill development courses are better than general courses to get jobs, Skill courses has very much scope in the present employment field, Students with skill courses are more competent than the general stream and Trained students get job soon after completion of course.*

From the consolidated *independent sample t-test and one way ANOVA* testing *p* values shown in above Table No. 8.1 and table No 8.2, it becomes clear that ***"Perspectives of Institutional Heads for Skill Development Programmes is favourable and positive. So, the null hypothesis is accepted.*** The institutional heads in general are not different whether they are male or female, rural and urban, north and south, various talukas and streams for skill development programmes conducted in the state of Goa and also they have shown a great deal of maturity towards skill development programmes in Goa.

**The chapter -5** focuses on third objective titled ***"Attitude of ongoing students towards facilities available and curriculum"*** which was framed for ongoing students to collect data in terms of twelve aspects which consist of six aspects related facilities available and six curriculum such as *Class rooms, Library facility, Teaching aids, Infrastructure facilities, On the job training/ internship and Latest tools and equipments for facilities available.*

The variable used for curriculum were *Teachers/ Faculty of the Course, Instructors for internship/training places, Theory teaching in the class, Practical training in the institution, Syllabus framed for the course and Overall Curriculum of the course.*

The hypothesis formed was: ***"Attitude of Ongoing-students towards Facilities available and Curriculum is satisfactory"*** with reference to Gender, District, Talukas, Streams and Trades. The statistical tools such as *Mean score, Independent sample t- test and One way ANOV test* were used to analyze the data and to test the hypothesis.

From the above Tables No. 8.1 and Table No. 8.2 it can be concluded that ***"attitude of ongoing students towards facilities available and curriculum is significantly different and unsatisfactory". It means the ongoing students are not happy about facilities available and curriculum framed by the concerned authority. So the null hypothesis is rejected and alternate hypothesis is accepted.*** The ongoing students in general are not satisfied and unhappy with facilities offered and curriculum in the state of Goa. It means that the attitude shown by the present students towards facilities available and curriculum offered by the concern authority is not satisfactory.

**The chapter- 6** titled ***"Skill Development Programmes and its impact on Employment and self- Employment"*** deals with fourth objective of the study. This chapter stresses on analyzing the impact of skill development programmes on employment and self-employment in terms of four aspects which consist of Self-employment (full time), Self-employment (part time), Job employment (full time), Job employment (Part time).

The hypothesis formed was ***"Impact of Skill Development Programmes on employment and self-employment is insignificant"*** with reference to streams and Trades. The statistical tools such as *one-way ANOVA, Coefficient test, Chi-square test and Multinomial Logistic regression test* were used to analyze the data and to test the hypothesis.

From the consolidated *one way ANOVA, Coefficient test and Chi-square test* testing *p* values shown in above Table No.8.1 and Table No. 8.2, it can be concluded that ***"Impact of skill development programmes on employment and self-employment is significant". It means the more number of past students are employed either on job or self employed. So, the null hypothesis is rejected and null hypothesis is accepted.*** This is because, in most of the individual cases, the *P* values are less than 0.05 at 5% level of significance. It shows a significant impact on employment (Self employment and Job employment) Stream wise and trade wise in the state of Goa. A high significant impact of

Skill training programmes conducted through various streams and trades was noticed on job employment rather than self-employment in the state of Goa. So also there was a significant association between reason for joining the course and status of past students which indicates that the students have fulfilled their ambition for which they had joined the course.

**Chapter - 7** titled *"Gap of human resources and perceptions of skill development programmes"* deals with the fifth and sixth objectives of the study. The fifth objective analysis the various aspects of requirement and availability of workers based on different skills and qualifications in the state of Goa. For the purpose, the data was collected from the industrialists all over the Goa. The hypothesis such as*: "Requirement of Human Resources to the availability of manpower is adequate"* was formed based on various skills and qualification.

This hypothesis was tested with the help of statistical tools such as *Mean score and Independent sample t-test*. Information was collected on the basis of fifteen aspects which are divided into skill and qualifications. The four skills were categorized in one group and eleven qualifications in another group for collecting data. The skills taken for study were *"Specialized skills, Highly skilled, Semi skilled and Minimally skilled workers and qualifications considered were NSQF certificate Holders, Vocational certificate Holders, PG Degree holders, ITI  Certificate holder, Diploma Holders, HRDFS Technical Students, EDP Trainees, Security Guards, Tailoring and Embroidery trainees, Apprentices, and Other trainees like Agriculture, Animal Husbandry and Urban development certificate holders.*

From the consolidated *mean score and independent sample t-test* testing, *p* values shown in above table No. 8.1 and Table No. 8.2, it becomes clear that *"Requirement of Human Resources to the availability of manpower is inadequate". It means that there is a significant gap between requirement of skilled workers and the availability of workers. In other words requirement and availability of workers is inadequate. So null hypothesis is rejected and alternate hypothesis is accepted.* It indicated that the supply of trained workers is not sufficient to cope up with the requirement of workers in the industries for specialized skills and highly skilled whereas supply of minimally skilled workers are surplus than the requirement in the industries.

**Chapter – 7** also deals with the sixth objectives of the study. The sixth objective analysis the perception of all stakeholders which includes institutional heads, present students, past students and industrialists towards skill development programmes in the state of Goa. For the purpose, the data was collected from all four categories of respondents from all over Goa. The hypothesis such as*: "perceptions of different stakeholders regarding skill development programmes is not significant"* was formed based on *cross tabulation, ANOVA and multiple comparison post Hoc test* introduction of course, responsibility for failure and reason for failure.

The hypothesis was tested with the help of statistical tools such as *cross tabulation, ANOVA and multiple comparison post Hoc test*. Information was collected on the basis of three aspects *"introduction of course, responsibility for failure and reason for failure"*.

From the consolidated *cross tabulation, ANOVA and multiple comparison post Hoc test* testing, *p* values shown in above table No. 8.1 and Table No. 8.2, becomes clear that the hypothesis formed for fifth objective is rejected since significant. This is because, in most of the cases, the *P* values are less than 0.05 at 5% level of significance. Therefore it can be concluded that *"perceptions of different stakeholders regarding skill development programmes is significant". It means majority of the respondents from different categories shows significant difference towards skill development programmes in Goa. Thus null hypothesis is rejected and alternate hypothesis is accepted.*

### 8.5 Suggestions for policy alternatives:

Based on the research findings, the following suggestions are made in order to improve skill development programmes in the state of Goa.

1. It is suggested that teachers and parents should motivate students and create interest in the minds of the students to start their own business and not to hang around for getting jobs only. Students should start their small startups business by which they can be future entrepreneurs to provide jobs for the students rather than depending on others to provide jobs. It is always better to do something rather than remaining unemployed since some students are doing nothing after the completion of course and remains unemployed.

**2.** It is suggested that more and more students should come forward to start their self-employment business and become an entrepreneurs for which government should help them by providing some schemes, loan facility and easy formation of unit since they are quite immatured to understand and carry out all the formalities. The institutions and teachers too should assist pass-out students in setting up of industrial unit and inspire them to start their own business. The procedure of setting own business should be made available through each and every institutions so that self employment formalities can be easily completed in the institute itself.

**3.** It is suggested that the students and institute should try to start atleast some part time job in their respective fields while learning a course so that the students can work practically and get better experience while learning further studies. They can earn while learning and overcome difficulties faced by them by solving in the class room. The institute should make necessary arrangement to send students to work on part time basis and simultaneously learning to get more knowledge. The students should work and gain better experience and knowledge. The government and education department should try to take some steps in providing part time job and stipend scheme should be launched to create interest in the mind of the students.

**4.** It is suggested that vocational courses like A/c and Auditing, Marketing and Salesmanship and other institutions providing various courses should try to improve the techniques of placement of the students through placement cell, campus interviews and MOU with industries and companies for providing jobs to the students soon after completion of the course.

**5.** It is suggested that students should wait for some time to form their career in the samilar field or at least after getting some experience at the beginning they should redivert their career in a similar field of studies they have studied to remain satisfied on their job. Placement cell in the institutes can also play a major role in deputing students in the respective areas or at least they can inform to the unemployed students about advertisement and help them to get employed in the similar field.

**6.** It is suggested by the researcher that whether it is a new employee or experienced employee they should be paid as per their talents, potential to work on the jobs, skills possessed by the candidate, confidence on the job, smartness and other factors necessary for the job. The new employees should not be taken for granted but they should be treated at par with other employees while paying salary. The new employees are paid very low salary for the similar work carried out by the seniors due to this the newly passed out students does not like to join for the job and willing to go abroad. They get handful salary in the foreign countries and they feel our employers are paying peanuts by playing with their life. A proper benchmark ad minimum salary should be fixed which is to be applicable to all industrial units.

**7.** It is suggested that the government should at least provide easy finance scheme to the students through each and every bank without any guarantor so that newly passed out students who really interested in starting their business can at least start their own business. The institutions and teachers should try to increase the confidence level of the students by solving their problems to start self employment business.

**8.** It is suggested that the government can play a significant role in making education easy and attractive by way of making it job oriented. So that the students will join willingly on their own. Trainers need to pay attention to the students as much as possible in the class as well outside by having friendly relations with helping motto in mind and without expecting any benefits from students. Institutions preferably during the course and after course should help students to get jobs or to motivate students for starting self-employment. Students also need to pay utmost attention to their studies without bunking classes. Public and society if they can't inspire students to take up skill course then at least they should not discourage students those who wish to opt for skill courses. The parents should give freedom to the children to choose their education with full support.

**9.** It is suggested by the researcher that the Ministry of Skill Development and entrepreneurship should ask for increase in funds in the budget so that the institutions should get enough money to spend for the speedy development of skill programmes in Goa. In fact an attempt is made by the government of India to increase provision in the budget from 1000 cr. in 2013 to 3016 cr. in 2017 which is almost 3 times more in the

budget for skill development in 2017 as compared to 2013 but still it one of the low budget ministry compared to other departments. It is necessary to make more provision in the budget for ministry of skill development so that the problem of lack of funds could be solved.

**10.** The researcher has suggested that the skill education imparted in the institutions should be relevant to the present market demand and as per requirements of the industries. So also it is the responsibility of the government and the department of Skill Development to check whether the policy is implemented properly as it is and in the same manner framed by the concern department. A proper training should be imparted to the teachers and they should be made competent and well trained to teach students.

**11.** The researcher has suggested that the government and the Directorate of Skill Development need to look into the matter of the existing course model and introduce a new model which is convenient, students friendly and fully acceptable to the students by changing syllabus, timing , period, etc. and also making awareness and publicity of skill programmes to the public. More funds for the improvement of infrastructure is also a need of the hour which is to be considered for skill development programmes in Goa.

**12.** It is suggested that institutions, industries and students should co-operate with each other. The student should be willing to go for training, institutions should also show their readiness to send students for training and industrialist should also show willing to accept students for training. There should be a MOU between institutes and industries for practical training in industries rather than conducting in the institions itself. There should be a separate Board or Training centre at state level to register students / institutions who wish to go for training and on the other side provide training in industries at the par level of apprenticeship training in Goa. As apprenticeship training is only meant for ITI students, other students from other streams should also be given opportunity to go for training.

**13.** It is suggested that the industrialist should take students for training during their course work so that when they pass-out they will be an experienced candidates for the job. The period of training should be made mandatory in the curriculum as per the requirements of the industries. The students should be paid remuneration in the form of stipend more or less equal to other employees working in the industries.

**14.** It is suggested that it is necessary to set a benchmark to maintain standard of education taught, technical knowledge and skills acquired by the students in their respective field of training acquired by the students in the various institutions. Thorough checking should also be done to test the level of knowledge acquired which need to be certified by the industrialist apart from regular written examination conducted by the Board of Education and other responsible authority. There is also a need to provide practical training on the job in the industries rather than in the respective institutions. The institutions need to check the job expectation by the industrialist in their respective area and on the basis of expectations of industrialist the various courses should be started by the institutions. It is also suggested that courses should be offered by the education department to those institutions only as per the need of the industrialist in a particular area, so that students can get jobs easily in the same area.

**15.** It is suggested that there is a need to either increase the number of institutions or increase the number of seats in the same institutions to fill shortfall of trained students. The other way of filling the gap is to make publicity in the remote areas and attract students towards skill courses. In some cases availability of workers is high so there is no need of taking some extra efforts but there is necessary to make awarenees for couses like ITIs, EDP where there is high demand for the students but less availability of workers.

**16.** It is suggested that government should put into place a proper system of policy implementation. The public should inspire children's to accept skill courses, institutions should take utmost interest as usual on par level with general stream. Students should attend regular training in the industries for internship and the trainers should be the watchdog for daily attendance of students. Media should take interest in making publicity of skill mission.

**17.** It is suggested that Ministry of Skill Development and the Education Department should frame syllabus relevant to each and every course and it necessary to modify every after 2 years. The teachers should be send for training every year to learn new and modern updates in the respective course so that skill education for students can be imparted properly.

**18.** The researcher has suggested that the there is a need to identify hidden skills prevailing in each and every child at the school level and the particular child need to trained in their interested field. Psychologist and the Counselors are necessary to be appointed at the school level so that the talents and skills can be identified and the students should be trained in the specific area only for their career development by clubbing together similar type of students in the class. A child with different skills and level of knowledge cannot be taught together but the similar type of students should be combined together to impart education.

**19.** It is suggested that skill courses should be introduced well in advance right from $5^{th}$ standard in those trades as per the capacity of the students so that they can start building their interest in specific trades as per their likings. This will help students to find their interested trades to build up their career in the future along with other general subjects instead of starting at $IX^{th}$ standard which is prevailing at present in the Government schools only. It should be made open to all aided schools like government schools so that talented students who are studying in aided schools should also get opportunity to learn skill courses and become skilled employees to build a nation and fulfill Skill India Mission.

**20.** It is suggested that internship should be made mandatory for each and every stream right from school level to the university and other institutes those who are involved in skill development programmes at least for six months i.e. for one term similar to University degrees. It will help students and trainees to get well equipped with the requirements of jobs and also they will get trained in the respective trade more thoroughly. Along with the practical training provided by the institutions in their own institutes, they should provide on-the-job training in industries so that students will get the opportunity to know the job and experience it.

**21.** Since the skills possessed by the ancestors are dying in the country and no child want to continue their parents occupation specially skill works, the researcher suggested that it is necessary for the Government and Department of Craftsmen training to identify those skills which were prevailing in villages and should be made as recognized courses by affiliated to the Ministry of Skill Development and Entrepreneurship by offering certificate courses. It will help ministry to provide training to the youngsters to acquire skills in their own villages and also encourage their future generations to continue their ancestors business rather than searching for Government and industrial job in their respective fields.

**22.** The trades allotted to the various government and private institutions should be done as per the requirement of the area so that trades required in particular village will get fulfilled and they can afford to get job in the same area. It is important to see the demand for skills and jobs in the respective area and as per the requirement trades should be allotted to that taluka where it will become fruitful to the students to use their skills and get jobs in the nearby area.

**23.** It is suggested to implement education system prevailing in Japan to encourage more and more students to start their own employment and to be their own boss of the business. Government should make necessary arrangements to help students by way of necessary finance, infrastructure and other requirements so that the system can make it easy for the businessman to their own business.

**24.** It is suggested that the attitude of parents as well students need to be changed by providing necessary knowledge through awareness programmes in the school and also at public department so that parents will not get discouraged and also not discourage their child to accept skill courses.

**25.** The employees in the institutions teaching skill courses are mostly on temporary or lecture basis. It is suggested to increase salary of the employees by bringing them at the par with other employees those who are teaching other courses in the schools and various other institutions. The teachers should be made compulsory to go for training and if they fulfill the required criteria they should be made permanent as like other employees in government and aided institutions.

**26.** The instructors and teachers should be trained every year so that they can upgrade their knowledge and get equipped with current requirements which in turn it will benefit to the students. Experienced and trained teachers are expected by the institutions to bring reputation for the institutions. It is also suggested that once in a six months, two hours of training should be provided to the trainers at District or Taluka level. Training should be related to soft and hard skills which are demanded by the employers. It is also suggested that Government of Goa should prepare 3-5 years plan for imparting skill based training to the trainers.

**27.** The Department of skill development should do regular check-up to see that they are implemented properly by the various institutes involved in skill development programmes as per the guidelines framed by the department. It is also suggested that templete based feedback mechanism should be developed through which Government can measure the skill development activities. At the central level skill development mapping should be established to check the skills acquired before training and skills acquired after training by the candidates. It is specially suggested that ICT (Information communication & Technology) based skill mapping technique should be developed and implanted at the central and state level.

**28.** There should be a proper system or method in place to do performance appraisal by the tertiary institution in the zone in order to ensure that the teachers are doing their duties effectively. This will ensure that the lecturers will discharge their duties diligently and increase efficiency of education in the institutions. It is also suggested that the performance of trainers and teachers should be measured every after six months though questionnaire system or feedback sheet technique. The performance can be checked and evaluated by the third party or by the NGOs thoroughly. There should be an accreditation system to all the skill education institutions on the basis of pre-determined parameters conducted by the Government agency and the grades could be allotted depending on the performance of each and every institution.

**29.** To upgrade skill development programmes it is necessary to sharpen skills of both teachers and administrators as a subject expert who should be trained regularly to make highly competent trained and experience teachers to impart high quality education to the students and trainees. Education department should make it mandatory to the trainers for acquiring higher skills. Every year atleast one skill can be accomplished by each and every teacher and the concern teacher should produce certificate along with the annual performance appraisal. The salary of the teacher granted by the Government (Finance department) should be based on his performance and the new skills acquired by him during the academic year. Those teachers acquire extra skills can be offered yearly increment as well as grade. A good skill teacher can be recognized and felicitated during a special state and central programmes and if possible awards can be offered to the best teachers.

**30.** The use of quota systems should be introduced for employment concerned to each and every stream in order to accommodate every students and trainees for the job whenever available which are related to specific courses. The candidates should be selected purely on the basis of specific skills possessed, knowledge and abilities acquired to match with the required job. It will help to solve unemployment problems of the students in Goa.

**31.** It is suggested by the researcher that the recruitment and selection of each and every Government department and industries should be made clear and unambiguous in order to ensure that all prospective candidates are fully aware of the conditions of employment. This will help students to choose the appropriate trade while seeking admission and also to get specific employment.

**32.** It is suggested that skill development department should plan in advance and it should be put into place future challenges of skills requirement in the form of skill shortages in order to meet challenges of 21st century by skilling students through proper training in the various institutions. It is necessary to find challenges faced at the global level and the students need to train in such a way that they are not only prepared to face the challenges in the country but they are ready to face globally.

**33.** The success of any implementation of well designed plan is follow-up. It is suggested that an adequate and systematic follow-up network must be encouraged after training and development sessions in other to ratify that learning has taken place and that the important issues that have been addressed are implemented. This should include a two way communication network system that will be able to address and answer all difficulties of the stakeholders.

**34.** It is suggested that the government should make more provisions in the budget at both Central and state level especially for training, development of infrastructure, administrators and teachers to make them regular. This would strengthen intuitions to face global competitiveness and modern trends in the areas of skill education.

**35.** It is suggested that complete information of skill courses should be made available on media and internet to create publicity and awareness to the students so that any information required should be quickly accessible to the students for taking their own take decision for choosing a course.

**36.** It is suggested that a separate website should be developed by the central and state government on which all details of skill development activities should be made available. Skill development campaigns should be organized at public places to make publicity of the skill activities carried out by the government and various institutions. A brand ambassador can be nominated from the field of industry, cinema, sports, etc. to do publicity of skill programmes at state and central level. The funds can be raised from companies under CSR to spend for publicity.

**37.** The researcher has suggested that industries and companies should provide opportunities for the students to work on internship or apprenticeship basis. So, that students would get industrial work atmosphere and students will get used to industrial culture so that they can be easily get adjusted on the job after completion of course. If students want to learn what is thought in the institutions then practical knowledge on the job in the industries is very much important for the students. Hence, it is necessary for the industries to provide sufficient opportunities in the industries to curtail unwanted problems on the job after completion of course.

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**38.** The industries should provide sufficient training opportunities to the students during their course work so that the students can pass out as skilled and trained candidates who can become eligible and suitable candidate for a particular job. The researcher has also suggested that the industries should declare the requirement of manpower for imparting skills under internship and apprenticeship training programmes. The industries should provide rigorous skill training for which government should appreciate them in the form sharing their financial burden partly or fully or tax concessions concession can be offered to those industries who offer skill development training.

**39.** It is suggested that industries should accept newly past out candidate on the job so that they will get experience on the job or otherwise the students should be taken on apprenticeship basis whereby they will get atleast some sort of experience of work on the job rather than remaining unemployed at home with idle mind. The researcher has suggested that the industrialist should help all type of students irrespective of marks acquired but on the basis of skills possessed and smartness of the candidate.

**40.** The researchers has suggested that the government should introduce a new course model, the ministry should make more and more publicity of the mission, need to change mind set of the students, public and parents to accept skill courses, need to change existing syllabus, need to provide more funds, more awareness to the public for the improvement of skill development programmes in Goa.

**41.** It is suggested that along with skill youth education, the Ministry of Skill Development and Entrepreneurship should also concentrate on adult and women education in Goa to boost self-employment business at taluka level. The Ministry should provide option for adult who have crossed their age of formal education but still if they feel that they should learn skill education or any other equivalent education could be imparted to help them to acquire knowledge or to start some small business.

**8.6 Scope for Further Research**

The present study is confined to four different stakeholders of Skill Development Programmes in Goa they are Institutional head, Present students, Past Students and HR mangers, owners of Industries and Start-up Companies. The study covered some important aspects like opinions of Institutional heads and Present students, impact of Skill Development Programmes on Employment and Self-Employment, Skill gap between requirement and availability of employees and perception of various skill development programmes in Goa. However, there are many more issues associated with Skill Development Programmes which are not covered in the present study which can be considered for further research, they are:

1. Sector wise detail study based on Manufacturing, trading and service sector.
2. Sector wise study based on Primary, Secondary and Tertiary Sector.
3. Individual Ministries involved in Skill Programmes.
4. Evaluation of Community College Programmes.
5. Impact of Prime Minister Kaushalya Vikas Yojana.
6. Performance of Skill India.
7. Impact of Make in India.
8. Different Industrial Training Programmes.
9. Employability Skills  in Industries
10. Comparative Study between Goa and other States.
11. Comparative study between India and other Countries.
12. Expectations and Satisfaction of Employers towards Skilled Employees.
13. Reason for Joining, Aspiration and fulfillment for each Stream.
14. Sector wise acquied Skills before and after joining the job
15. Performance Measurement of Trainers

The Skill development courses have gained tremendous importance at present in India as well as in Goa. The above list suggested is in fact insufficient since many other topics can be added in which good research can be conducted to fill the gap in the present study on the topic "An evaluation of Skill Development Programmes and its impact on Employment an Self-Employment: A study with reference to the State of Goa". A research can be under taken on any of the above topic individually or in combinations with senior professor of the university. Even the existing study can be studied by taking each and every objective separately and the detail study can be conducted to make it more meaningful by using some other statistical techniques for different variable.

## 8.7 Suggestive Models:

On the basis of data collected from the various respondents in the state of Goa and the inferences drawn from the study, the researcher has developed the following suggestive models which will help in preparing a roadmap of Skill Development Programmes and to implement in the state. The models are developed on the basis of keen observation made by the researcher in the field of Skill Development Programmes prevailing in the state of Goa.

**Model No. 8.1: Employment and Self-Employment**

The above model No. 8.1 shows how Skill Development Programmes can be effective in generating Employment and Self-Employment in the state. The main objective of the skill development programmes is to train students to create their own employment avenues or to make them employable in the areas of skill of their choice. In order to improve the potentiality of the students for employment and self-employment, the Ministry of Skill Development has to follow a Skill development Model consist of following steps: (Refer Model No. 1) i.e. Skill Group Study, Skill Gap Matching Tool Development, Skill Training Schedule Preparation, Skill Training Financial Budget, Trainers Training, Training to Aspirants, Evaluation of Trainees and Placement and Progress Measurement. In order to find a suitable job it is necessary for the candidate to understand his liking and then accordingly choose a proper course and improve his skill so that the students is assured of a placement in a job of his choice. The Ministry of Skill Development and the Education Department need to study a skill group in the state to find the requirement of industries and the availability of skills taught in the institutions. It is necessary to find a matching tool to develop skills which can be applied right from school level upto post graduation to make them specialized in a particular field. The Ministry of Skill Development and the Education Department should prepare and develop a proper training schedule for the future and that could be modified every after 2-3 years to adopt latest changes in the market and as per the expectations of the industrialist. A separate budget for skill training should be allocated for the skill development programmes which can be used for the betterment and development of skill activities. It is also necessary to find trainers to train the students at international level to make them highly skilled workers so that they can avail job in the country as well as abroad. The skill training can be given to those who are aspiring to get trained and acquire skills in the respective field. At the end of the year or after completing a course the institutions and the respective authority should evaluate the level of skills acquired by the students in order to be declared "ready for the job". Finally there should be a placement cell in each and every institution and also the Ministry should take care of job offered in the various industries so that the trained students could be absorbed in the industry and successfuly build their carrier. It is also necessary to keep track of the students to check whether students are employed on job or carry out own business. It is necessary to measure the progress of the student on the job after completion of course which will help for the trainers to apply a particular method of teaching for other students if it is effective or make changes as per the requirements of the employers.

**Model No. 8.2: Vocational Training**

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                    ┌─────────────────────┐
                    │  Government of Goa   │
                    └─────────────────────┘
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                               ▼
                    ┌─────────────────────┐        ┌──────────────────┐
                    │     Vocational       │───────▶│   Ministry of    │
                    │     Education        │◀───────│    Labour &      │
                    │    Department         │        │   Employment     │
                    └─────────────────────┘        └──────────────────┘
        ┌────────┐            │
        │  NSDC  │            ▼
        └────────┘  ┌─────────────────────┐        ┌──────────────────┐
                    │ Vocational Training  │───────▶│                  │
                    │  Providers (VTP's)   │◀───────│   University     │
        ┌────────┐  └─────────────────────┘        │      &           │
        │ ITI's  │            │                     │   Colleges       │
        └────────┘            ▼                     └──────────────────┘
                    ┌─────────────────────┐
                    │      Student         │
                    │     Finishing        │
                    │      Schools         │
                    └─────────────────────┘
                               │
                               ▼
                    ┌─────────────────────┐
                    │     Employable       │
                    │      Students        │
                    └─────────────────────┘
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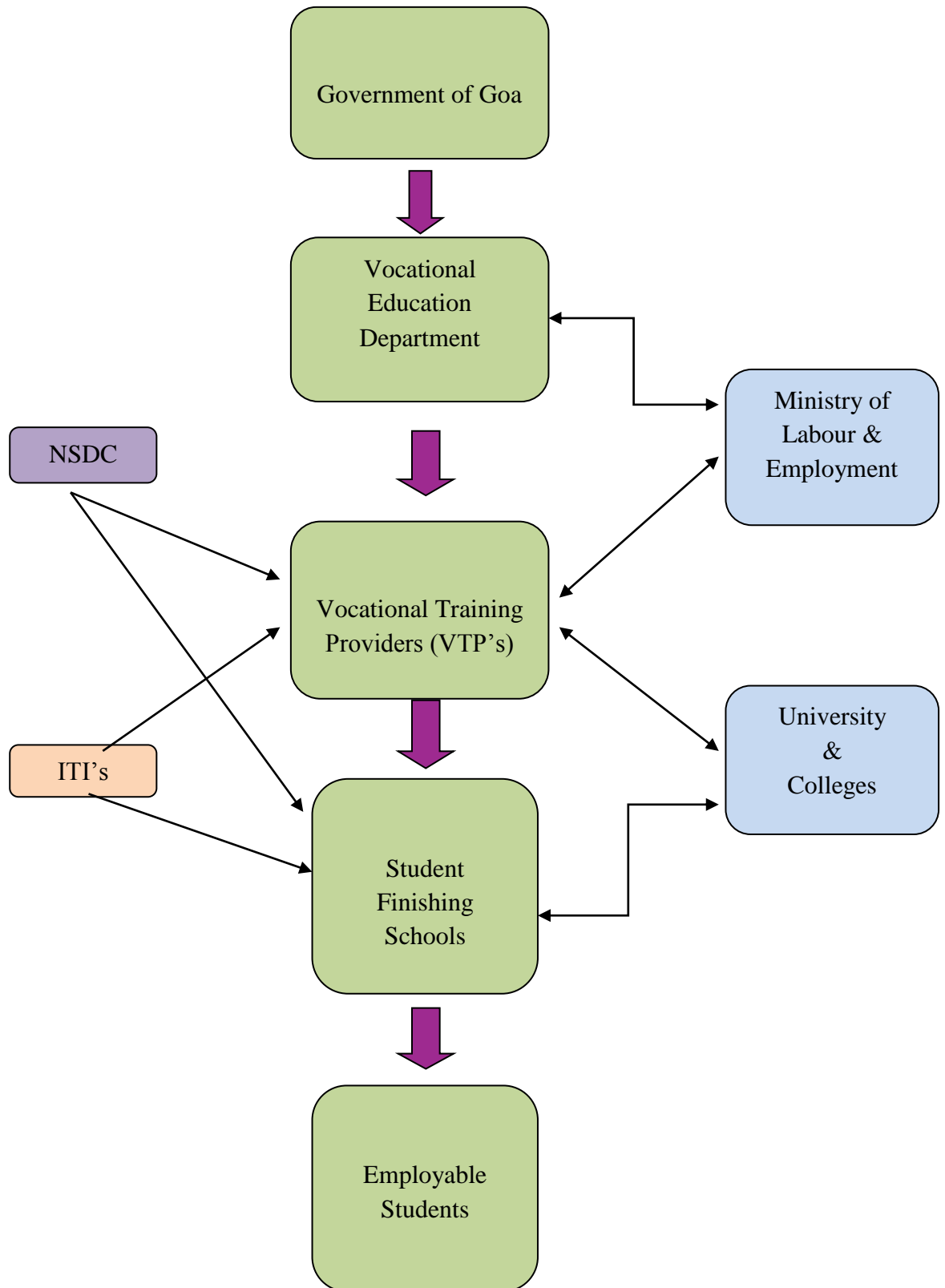
Model No. 2 shows how Skill Development Programmes can be made successful in getting students employable in the state of Goa. The Government of Goa should focus on skill development programmes so as to prepare students and make them competent for the Job through Vocational Training or start their own business in which students are trained in a respective field of studies carried out by them. To improve the capability of the students and to get employed, the Government of Goa and Ministry of Labour and Employment should pursue a system of vocational education study for better results. The model proposes that the whole system of Vocational Studies should be headed by Government of Goa and controlled by the Vocational Education Department (VED). The department should set Vocational Training Providers (VTPs) and should ensure that students complete the education and finally the passed out students gets employed. National Skill Development Corporation (NSDC), Industrial Training Institutes (ITIs), Colleges and Universities should be the vocational training providers to the students. It is suggested that the candidate should choose a proper course and acquire skills so that the students are competent to be placed on the expected job. The Ministry of Labour and Employment along with the Vocational Education Department need to find a aspirant training providers in the state as per their requirement suitable to impart training. The training providers could be such as NSDC, Colleges and Universities should also be brought under the perview of vocational training. It is necessary to develop Skill Development Courses which can be applied right from the school level to post graduation to make them specialized skilled workers. The drop-out students should also be taken into considerations in order to impart skill training education to make them atleast capable of getting employed through vocational training. Such an important role which can played by ITIs and NSDC to help in imparting training to drop-out and downtrodden students to get skilled who can ultimately become employable. The Vocational Education Department should prepare a training schedule for vocational training to adopt latest changes and requirement in the market and as per expectations of the employers. It is also necessary to check at the end of the year that the students complete the course successfully with acquiring enough kills to get employed. Finally it is also necessary to see that students are employed on the job and the employers could accept students as skilled students. It is also suggested that the Education Department can check the performance of the employed students on the job and make necessary changes required by the employers to fulfill the expectations of the industrialists and the employers.

**Model No: 8.3: Skill training**
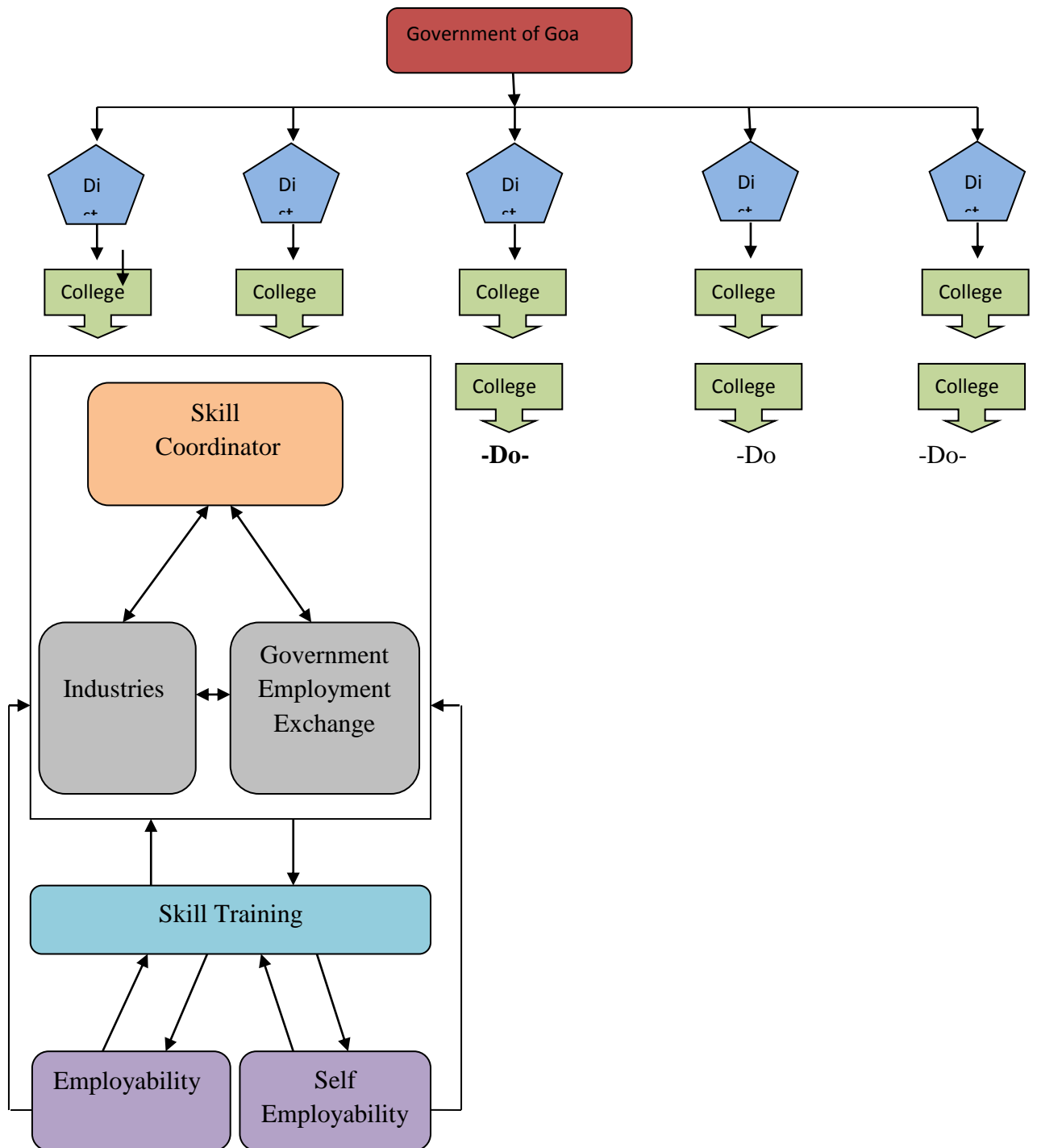


The above model No.3 shows the implementation procedure of skill training programmes in the state of Goa. The Government of Goa should emphasize on skill training to make students capable for employment and self-employment for which employability skills are essential. The Employability skills include soft skills as well as

hard skill required to carry out the job. The model proposes that Government of Goa is the head and the Controller of Skill Training Programmes followed by Skill Co-ordinator who should control the overall skill development programmes. In each and every district there should be colleges and skill development institutions to provide skill training educations to the aspirants. The skill development co-ordinator should co-ordinate with industries and government employment exchange to find the requirement of trained employees. It is necessary to supply the requirement of employees and the employment exchange needs to manage the supply of skilled trainees demanded by the various industries or the employment exchange can find out the shortage of skilled workers in the various industries and accordingly supply the trained students to fill vacancies in various industries. To meet the challenges of employability and self-employability it is necessary to provide skill training through various institutions and colleges in Goa. It is suggested that the Government of Goa and the skill development coordinator should prepare students in such a way that they possess employability and self-employability skills which can be acceptable in India as well as in foreign countries.

## 8.8 Outcome of the chapter:

This chapter has covered the conclusion of selected study, suggestions and future recommendation on the basis of analysis and interpretation of collected data in the field of research. The findings and suggestions will be useful to understand Quality of Work Life and its internal and external environment in selected study areas. The Skill Development programmes and their implementation in the field of employment and self employment have been studied by the researcher. The researcher has applied statistical tools and techniques to verify the results of the collected data by the various stakeholders i.e. Head of the Department (HOD), Ongoing Students/ Present Student, Past students and Industrialist. The State of Goa has made a positive growth in the field of operating Skill Development Programmes for the student which are helpful to the students to get job immediately. The Skill Development Programmes are very much important for employment and self employment.

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# ANNEXURE

## Questionnaire for Head of Educational Institutions/Departments

**1. Name**:------------------------------------------------------------------------------------------

**2. Designation**:----------------------------------------------------------------------------------

3. Name and address of the Institution:------------------------------------------------------

------------------------------------------------------------------------------------------------------

4. Location of the Institution:        a) Rural  [ ]        b) Urban  [ ]

5. Gender:        a) Male:  [ ]        b) Female:  [ ]

6. District:        a) North  [ ]        b) South  [ ]

7. Taluka:-------------------------------------------------------------------------------------------

8. Type of Institute:

    a) NSQF (SSC)  [ ]        b) Vocational (HSSC)  [ ]

    c) University Degree  [ ]        d) Community College  [ ]

    e) ITI's  [ ]        f) HRDF Society  [ ]

    g) EDP  [ ]        h) GHRSD Corporation  [ ]

    i) Training Cum production centre  [ ]        j) Other initiatives by  [ ]

    k) Apprenticeship Training  [ ]            the Government

9. Which year does the stream/course was introduced?

    a) Before 2012-13  [ ]        b) 2013-14  [ ]

    c) 2014-15  [ ]        d) 2015-16  [ ]

10. Do you provide any training to the students?

    a) Yes  [ ]        b) No  [ ]

11. If yes, type of training provided

    a) On the Job training  [ ]        b) Internship  [ ]

    c) Apprenticeship  [ ]        d) Other (specify)--------------

12. Do you have any MoU with Industry/firm to provide training to the students?

a) Yes [ ]     b) No [ ]

13. If yes, give details of training provided (Names & addresses) (attach separate sheet if necessary)

a) 2012-13-----------------------------------------------------------------------------------------

b) 2013-14-----------------------------------------------------------------------------------------

c) 2014-15-----------------------------------------------------------------------------------------

d) 2015-16-----------------------------------------------------------------------------------------

14. Is there Placement cell in the institution?

a) Yes [ ]     b) No [ ]

15. If Yes, No. of students employed through placement cell (attach separate sheet if necessary)

a) 2012-13-----------------------------------------------------------------------------------------

b) 2013-14----------------------------------------------------------------------------------------

c) 2014-15----------------------------------------------------------------------------------------

d) 2015-16---------------------------------------------------------------------------------------

16. How long does it take the students/ trainees to get their first job after completion of course?

| 6 months | 1y | 2y | 3y |

17. Which funding agency provides funds under skill development programme for your institution?

a) UGC [ ]   b) State Government [ ]   c)Central Government [ ]

d) Industry [ ]   e) Any other agency(specify)---------------------------------------

18. Please mark ( √ ) to comments on the following.

| Sr. No. | Questions | Strongly disagree | Dis--agree | Neutral | Agree | Strongly agree |
|---|---|---|---|---|---|---|
| 1. | Students acquire enough job skills after the completion of the course? | | | | | |
| 2. | Training/internship provided is sufficient for them to place on the job? | | | | | |
| 3. | Confident that the trained students are competent to take up the job? | | | | | |
| 4. | Curriculum framed by the authority is relevant to the job required by the industries? | | | | | |
| 5. | Changes in course should be made to meet the expectation of the employer? | | | | | |
| 6. | Need to implement skill development mission in the state? | | | | | |
| 7. | Skill development courses are better than general courses to get jobs? | | | | | |
| 8. | Skill courses has very much scope in the present employment field ? | | | | | |
| 9. | Students with skill courses are more competent than the general stream? | | | | | |
| 10. | Trained students get job soon after completion of course. | | | | | |

19. Is skill development mission successful in the state of goa?
        a) Yes                                                     b) No

20. If No. whom you think responsible for it?
        a) Government system     ☐         b) Institutions     ☐

        c) Students     ☐         d) Parents     ☐

        e) Trainers and teachers     ☐         f) Media     ☐

        g) society/public     ☐         h) Industrialists     ☐

        g) Others (please specify)-------------------------------------------------------------------

21. What you think a reason for failure of the course?

    a) Skill Education imparted    [  ]    b) Syllabi/ curriculum framed    [  ]

    c) Implementation of policy    [  ]    d) Lack of funds    [  ]

    e) Incompetent teachers    [  ]    f) Infrastructure in the institution    [  ]

    g) Practical training / internship    [  ]    h) Others (specify)---------------------

-

22. How skill courses under skill development programme can be improved?

    a) By introducing new course model    [  ]    b)Byimproving infrastructure    [  ]

    c) By Changing syllabus of the existing course [  ] d) By providing more funds    [  ]

    e) By making more Publicity of the mission    [  ] f)Bymaking public awareness    [  ]

    g) By changing mind set of the Student    [  ]

    h) By convincing parent to accept skill course [  ]

    i) Any other (please specify)------------------------------

23. Which new courses could be introduced under skill development programmes?

    a)---------------------------------------------------- b)------------------------------------

    c)---------------------------------------------------- d)------------------------------------

24. What changes you like to suggest for further improvement of skill development mission in Goa? (comment)

a) Syllabi: -------------------------------------------------------------------------------------

b) Funds:---------------------------------------------------------------------------------------

c) Trainers:-------------------------------------------------------------------------------------

d)Infrastructure:--------------------------------------------------------------------------------

e) Awareness:-----------------------------------------------------------------------------------

f)Other:-----------------------------------------------------------------------------------------

$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$    THANK YOU    $$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$

# Questionnaire for Present/Ongoing students/Trainees (High school, Vocational, ITI's, cc, PG, HRDFS, EDP, GSHRSDC, TrCPC, ApprenticeshipTrainees, etc.)

1. Name of the respondent:--------------------------------------------------------------------------

2. Address:----------------------------------------------------------------------------------------

3. Gender:              a) Male:  ☐      b) Female:  ☐

4. District:            a) North  ☐      b) South      ☐

5. Taluka: ----------------------------------------------------------------------------------------

6. Name of the School/ College/ Institution/unit:-----------------------------------------------

7. Stream:    a) NSQF (SSC)                ☐    b) Vocational (HSSC)  ☐

            c) University Degree          ☐    d) Community College  ☐

            e) ITI's                      ☐    f) HRDF Society       ☐

            g) EDP                        ☐    h) GHRSD Corporation  ☐

            i) Training Cum production centre ☐  j) Other initiatives by  ☐

            k) Apprenticeship Training    ☐        Government

8. Name of the Course/Trade: ------------------------------------------------------------------

9. What is the reason for opting above course?
   a) Self- employment                    ☐    b) Job-employment        ☐

   c) Higher education                    ☐    d) Liking for the course ☐

   e) No likings for general stream       ☐    f) Parents pressure      ☐

   g) Didn't get admission in general stream ☐  h) Others (specify)------------

10. How did you choose this course?

   a) By your own                         ☐    b) Inspired by friends   ☐

   c) Forced by parents                   ☐    d) Watching on media     ☐

   e) Publicity of Course                 ☐    f) Others (specify)------------

11. If suppose there were no skill development courses, what have you done?

a) Discontinued studies ☐ b) Started own business ☐

c) Joined formal education ☐ d) Done labour work ☐

e) Others (specify)-----------------------------------------------------------------------------

12. How did you like about the followings aspects (please tick)

| Sr. No. | Description | Poor | Satisfac-tory | Good | Excellent |
|---|---|---|---|---|---|
| 1 | Teachers/ Faculty of Course | | | | |
| 2 | Instructors for internship/training places | | | | |
| 3 | Theory teaching in the class | | | | |
| 4 | Practical training in the institution | | | | |
| 5 | Syllabus framed for the course | | | | |
| 6 | Class rooms | | | | |
| 7 | Library facility | | | | |
| 8 | Teaching aids | | | | |
| 9 | Infrastructure | | | | |
| 10 | Curriculum of the course | | | | |
| 11 | On the Job facility | | | | |
| 12 | Latest tools and equipments | | | | |

13. What is the term of 'on the job training/ internship'?

a) Less than one month ☐ b) One month ☐

c) Six months ☐ d) One Year ☐

e) More than one year ☐

14. What you feel about the followings (please tick)

| Sr. No | Description | Strongly disagree | Dis-agree | Neutral | Agree | Strongly agree |
|---|---|---|---|---|---|---|
| 1 | Practical training provided by the institution is sufficient. | | | | | |
| 2 | Institutional training hours are sufficient to acquire enough knowledge and skill. | | | | | |
| 3 | Adequate provision of internship | | | | | |
| 4 | Hours of internship provided during the course. | | | | | |
| 6 | Confidence of getting job after completion of course. | | | | | |
| 7 | Course is worth enough to get the job. | | | | | |

15. RANK **5** best skill courses/ training compared to general stream from the followings?

| Sr. No | Description | Rank (1-5) |
|---|---|---|
| 1 | NSQF (Schools) | |
| 2 | Vocational Studies (HSS ) | |
| 3 | MCA, MFS, MBA (University Degree) | |
| 4 | CC (Community College) | |
| 5 | ITI's (Industrial Training Institutes) | |
| 6 | HRDFS (Human Resource Development Foundation Society) | |
| 7 | EDP (Entrepreneurship Development Programme) | |
| 8 | GHRSDC Training (Goa Human Resource Skill Development Corporation) | |
| 9 | TCPC (Training Cum Production Centre) | |
| 10 | Other initiatives by state govt ( Agriculture, fisheries, animal husbandry) | |
| 11 | Apprenticeship training | |

16. What is your comment on introduction of Skill Development Programmes in Goa? Is it: (Please tick)

a) Successful------------------- ☐     b) Failure -------------------- ☐

17. If failure, why do you think it is a failure, is it because of;
a) Skill Education imparted ☐     b) Syllabi/ curriculum framed ☐

c) Implementation of policy ☐     d) Lack of funds ☐

e) Incompetent teachers ☐     f) Infrastructure in Institution ☐

g) Others (specify)--------------------------------------------------------------------------

18. Whom do you hold responsible for the failure of skill training programmes?

    a) Government system                 b) Institutions

    c) Students                       d) Parents

    e) Trainers and teachers           f) Society/ public

    g) Others (please specify)-------------------------------------------------------------

19. How skill development development programme can be improved?

a) By introducing new course model    ☐    b) By Changing syllabus of  ☐
                                                    existing course

c) By improving infrastructure    ☐    d) By providing more funds  ☐

e) By making more Publicity of the mission  ☐  f) By changing mind set of  ☐
                                                   the Student

g) By convincing parent to accept skill courses ☐ h) By making awareness to public ☐

i) Any other (please specify)----------------------------------------------------------------

20. What is your aspiration to do immediately after the completion of your course?

    a) to go for job    ☐    b) to start own business  ☐

    c) to join higher studies    ☐    d) to go abroad  ☐

    e) others (Specify)------------------------------------------------------------------------

21. Would you like to recommend similar course to others?

    a) yes------------                      b) No------------

22. Suggestions for further improvement of skill development in Goa?

    a)------------------------------------------------------------------------------------------

    b)------------------------------------------------------------------------------------------

$$$$$$$$$$$$$$$$$$$$         THANK YOU         $$$$$$$$$$$$$$$$$$

**Research Topic : An evaluation of Skill Development programmes and its impact on Employment and Self-Employment: A study with reference to state of Goa.**

**Questionnaires for Past students/Trainees ( High school, Vocational, ITI's, cc, PG, HRDFS, EDP, GSHRSDC, TrCPC, ApprenticeshipTrainees, etc.)**

1. Name of the respondent:-----------------------------------------------------------------

2. Address:-------------------------------------------------------------------------------

3. Gender:          a) Male: ☐          b) Female: ☐

4. District:          a) North ☐          b) South ☐

5. Taluka: -------------------------------------------------------------------------------

6. Name of the School/ College/ Institution/Unit Pass-out/Trained from:--------------------
---------------------------------------------------------------------------------------------

7. Which Stream did you pass out?

    a) NSQF (SSC) ☐          b) Vocational (HSSC) ☐

    c) University Degree ☐          d) Community College ☐

    e) ITI's ☐          f) HRDF Society ☐

    g) EDP ☐          h) GHRSD Corporation ☐

    i) Training Cum production centre ☐          j) Other initiatives by govt ☐

    k) Apprenticeship Training ☐

8. Year of pass-out/ training :  a) 2013 ☐          b) 2014 ☐          c)2015 ☐

9. Which course did you pass out from?-----------------------------------------------------

10. Why did you join for the course?

    a) Scope for Self- employment ☐          b) Scope for the Job ☐

    c) Scope for Higher education ☐          d) Others (specify)-------------

11. What is your present status? (Please tick)

    a) Self- employment (full time) (give detail)--------------------------------------------

    b) Self employment (part time) and studying (give detail)----------------------------

    c) Job-employment (full time)-------------------------------------------------------------

    d) Job-employment (part time) and studying (give detail)----------------------------

    e) Pursuing Higher education (give detail)----------------------------------------------

    f) Unemployed

    h) Others (specify)-------------------------------------------------------------------------


12. If employed,

    (Self) Number of years working | 6 months | | 1y | | 2y | | 3y |

    (Job)  Number of years working | 6 months | | 1y | | 2y | | 3y |


14. How long it took to get the first job after completing your course?

    | 6 months | | 1y | | 2y | | 3y |


15. Are you satisfied about your present job?

    a) Highly dissatisfied [ ]    (b) Dissatisfied [ ]    (c)  Neutral [ ]    (d) [ ]
Satisfied

    (e) Highly Satisfied [ ]


16. Is your present job related to skill course studied by you?

    a) Yes [ ]    b) No [ ]


17. If No, Why? Is it due to;

    a) Lack of acquired skill to start entrepreneurship [ ]

    b) Insufficient skill to get job [ ]

    c) No jobs available in field of training acquired [ ]

    d) Any Other (specify)----------------------------------------------------------------------

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18. If unemployed, reason for unemployment (please tick any one option)

   a) Unwillingness to start business   ☐   e) Lack of Finance   ☐

   b) Unwillingness to join for the job   ☐   f) Start-Up problems   ☐

   c) Lack of expected salary   ☐   g) Lack of Government Support   ☐

  d) No confidence to take up job in the same stream ☐  h) Others (specify)------------

19. Mention your comment for the followings. (please √)

| Sr. No | Descriptions | Strongly disagree | Disagree | Neutral | Agree | Strongly agree |
|---|---|---|---|---|---|---|
| 1 | Employer prefer candidate having skill course certificate during recruitment? | | | | | |
| 2 | Skill course definitely fulfilled requirement of the job? | | | | | |
| 3 | Employers call for job soon after completion of job? | | | | | |
| 4 | Necessary to go for other Courses to get employment or self-employed? | | | | | |
| 5 | Have you gone through any other course/training after you pass-out the course? | | | | | |
| 6 | Adequate internship provided during the course. | | | | | |
| 7 | Skill courses helps in getting job | | | | | |
| 8 | Skill courses worth to get sufficient and expected salary. | | | | | |

20. RANK 5 best skill courses compared to general stream from the followings?

| Sr. No | Description / Items | Rank (1-5) |
|---|---|---|
| 1 | NSQF (Schools) | |
| 2 | Vocational Studies (HSS ) | |
| 3 | MCA, MFS, MBA (University Degree) | |
| 4 | CC (Community College) | |
| 5 | ITI's (Industrial Training Institutes) | |
| 6 | HRDFS (Human Resource Development Foundation Society) | |
| 7 | EDP (Entrepreneurship Development Programme) | |
| 8 | GHRSDC Training (Goa Human Resource Skill Development Corporation) | |
| 9 | TCPC (Training Cum Production Centre) | |
| 10 | Other initiatives by state govt ( Agriculture, fisheries, animal husbandry) | |
| 11 | Apprenticeship training | |

21. What is your comment on the introduction of skill Development Programmes in Goa? Is it

       a) Successful--------------                            b) Failure --------------

22. If failure, whom you think responsible for it?

       a) Government system                           b) Institutions

       c) Students                                    d) Parents

       e) Trainers and teachers                      f) Media

       g) society/public                             h) Industrialists

       g) Others (please specify)-------------------------------------------------------------

23. What you think a reason for failure of the course?

       a) Skill Education imparted           b) Syllabi/ curriculum framed

       c) Implementation of policy         d) Lack of funds

       e) Incompetent teachers           f) Infrastructure in the institution

       g) Practical training / internship      h) Others (specify)---------------------

24. How skill courses can be improved under skill development programme?

a) By introducing new course model        b) By improving infrastructure

c) By Changing syllabus of existing course      d) By providing more funds

e) By making more Publicity of the mission     f) By making awareness to public

g) By changing mind set of the Student        h) By convincing parent to

                                             accept skill courses

i) Any other (please specify) -------------------------------------------------------------------------

25. Would you like to recommend similar course to others?

              a) yes-------------              b) No-----------

26. What are your suggestions for further improvement of skills development in Goa?

       a)------------------------------------------------------------------------------------------------

       b)------------------------------------------------------------------------------------------------

       $$$$$$$$$$$$$        THANK YOU        $$$$$$$$$$$$$$$

# QUESTIONNAIRE FOR INDUSTRIALIST / START-UP COMPANIES

**1. Name** --------------------------------------------------------------------------------------------

**2. Designation**: Owner/ HR Manager/ General manger/ other (specify):---------------------

3. Name and address of the firm:-------------------------------------------------------------------

4. Gender:              a) Male: [    ]    b) Female:        [    ]

5. District:            a) North [    ]    b) South          [    ]

6. Taluka:------------------------------------------------------------------------------------------

7. Educational Qualification:

    a) Graduate                    [    ]    b) Technical        [    ]
    c) Post graduate               [    ]    d)Other(specify)_____

8. What is your present status? (Please tick)
    a) Self- employment (full time) (give detail)--------------------------------------------

    b) Self -employment (part time) and (give detail)--------------------------------------

    c) Self-employment (part time) ----------------------------------------------------------

    d) Job-employment (full time) (give detail)---------------------------------------------

    e) d) Job-employment (Part time) (give detail)----------------------------------------

    f) Pursuing studies (give detail)--------------------------------------------------------

    h) Others (specify)-----------------------------------------------------------------------

9. Year of commencement of unit/Company-------------------------------------------------------

10. Which sector of business you are involved in?

    A) Manufacturing-    a) Consumer goods  [    ]    b) FMG              [    ]

                    c) Industrial product [    ]    d) Any other--------------------

    B) Trading           a) Retailing       [    ]    b) Distributorship  [    ]

                    c) Warehousing     [    ]    d) Any other--------------------

    C) Service           a) Tourism         [    ]    b) Event Management [    ]

                    c) Consultancy     [    ]    d) Hotel/Restaurant [    ]

                    e) Health care     [    ]    f) Any other--------------------

11. Is your present business/job related to skill course/degree studied by you?
a) Yes [ ]    b) No [ ]

12. If No, Why? Is it due to;

a) Lack of acquired skill to start entrepreneurship [ ]    b) Insufficient skill to get job [ ]

c) No jobs available in field of training acquired [ ]    d) Any Other (specify)--------

13. Is your firm / department provides training?
a) Yes [ ]    b) NO [ ]

14. What type of training is provided by your company?
a) On the job [ ]    c) Apprenticeship [ ]

b) Internship [ ]    d)    Any

other_____

15. How many students were trained by your firm for past years? (Provide detail for last 4 Years);
2012------------------------------------    2013----------------------------------

2014------------------------------------    2015----------------------------------

16. How many students were employed by your firm after training? (please provide detail for last 4 years)

2012------------------------------------    2013----------------------------------

2014------------------------------------    2015----------------------------------

17. What type of candidate do you prefer/expect for the job?

a) Skilled [ ]    b) Un-skilled [ ]

c) Trained [ ]    d) Un-Trained [ ]

e) Experienced [ ]    f) Inexperienced [ ]

g) Other_____

18. Which type of candidate is more difficult to find for the job?

a) NSQF [ ]    b) Vocational [ ]

c) ITI students [ ]    d) Unskilled workers [ ]

e) Degree Holders [ ]    f) Technical [ ]

g) Done Apprenticeship training [ ]    h) Experienced [ ]

i) Others_____

19. What are the reasons for not finding suitable candidate for the job? Please Mark (√) any one option to the following statements given below in Likert scale from strongly disagree to strongly agree. (SDA=Stongly Disagree, DA=Disagree, N=Neutral, A=Agree, SA=Strongly Agree)

| Sr. No | Reasons | SDA | DA | N | A | SA |
|---|---|---|---|---|---|---|
| 1. | The level of educational knowledge is too low. | | | | | |
| 2. | Lack of technical knowledge | | | | | |
| 3. | Lack of required skills possessed by candidates. | | | | | |
| 4. | The training level of applicants is too low. | | | | | |
| 5. | Mismatching of the applicant's education / training with what is expected. | | | | | |
| 6. | The applicants do not possess the expected work experience. | | | | | |
| 7. | High expectation of salary of the applicant. | | | | | |
| 8. | Job conditions is not acceptable to the applicant. | | | | | |
| 9. | There is no job for the skills taught in the various institutions. | | | | | |
| 10 | Students interested in starting their own business. | | | | | |
| 11 | No sufficient courses in the institutions to train required skills. | | | | | |
| 12 | Unwillingness of students to upgrade skills. | | | | | |

20. Which of the following skills areas (a) experiences the largest increase in requirements, and b) skills available? (Please tick (√) one option from both (a) and and (b) category)

| Types | Skills | (a) Requirement of Manpower | | (b) Availability of manpower | |
|---|---|---|---|---|---|
| | | Low | High | Low | High |
| Levels of skills | Specialized skills | | | | |
| | Highly skilled | | | | |
| | Semi skilled | | | | |
| | Minimally skilled | | | | |
| Qualific -ation skills | a)NSQF certificate | | | | |
| | b) Vocational certificate | | | | |
| | c)ITI certificate | | | | |
| | d) PG Degrees | | | | |
| | e) Diploma Holders | | | | |
| | f) HRDF courses | | | | |
| | g) Entrepreneurship Dev. training | | | | |
| | h) Training given by Skill dev. Corporation | | | | |
| | i) Training cum production centre Courses | | | | |
| | J) Other initiatives taken by the state govt. | | | | |
| | j) Apprenticeship training | | | | |
| | | | | | |

21. What is your comment on the introduction of skill mission in India? Is it

    a) Successful-------------- ☐    b) Failure -------------- ☐

22. If failure, whom you think responsible for it?

    a) Government system ☐    b) Institutions ☐

    c) Students ☐    d) Parents ☐

    e) Trainers and teachers ☐    f) Media ☐

    g) Society/ Public ☐    h) Industrialist ☐

    g)   Others   (please   specify)-------------------------------------------------------------

23. What you think a reason for failure of the course?

    a) Skill Education imparted ☐    b) Syllabi/ curriculum framed ☐

    c) Implementation of policy ☐    d) Lack of funds ☐

    e) Incompetent teachers ☐    f) Infrastructure in the institution ☐

    g) Practical training / internship ☐

    h) Others (specify)-----------------------------------------------------------------------

24. How skill courses can be improved under skill development programme?

a) By introducing new course model ☐    b) By improving infrastructure ☐

c) By Changing syllabus of existing course ☐    d) By providing more funds ☐

e) By making more Publicity of the mission ☐    f) By making awareness to public ☐

g) By changing mind set of the Student ☐    h) By convincing parent to ☐

        accept skill courses

i) Any other (please specify) --------------------------------------------------------------------------

25. Would you like to recommend skill development courses to our youth?

    a) Yes ☐    b) No ☐

26. Which new skill courses should be introduced under skill development programmes?

    a) -----------------------------------------------------------------------------------------------

    b)-----------------------------------------------------------------------------------------------

27. What your suggestions for further improvement of skill development in Goa?

    a)-----------------------------------------------------------------------------------------------

    b)-----------------------------------------------------------------------------------------------

        &&&&&&&&&&&        END        &&&&&&&&