TRACER STUDIES FOR GOVERNMENT ITI PASSOUT TRAINEES

Submitted to

The Directorate of Technical Education and Training (DTE&T),

Prepared by

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS

CAPI	Computer-Aided Personal Interviews
CATI	Computer-Aided Telephone Interviewing
CAWI	Computer-Aided Web Interviewing
CoE	Center of Excellence
CTS	Craftsman Trading Scheme
DTE&T	Department of Technical Education and Training
DWO	District Welfare Officer
ITI	Industrial Training Institute
MoU	Memorandum of Understanding
NSQF	National Skills Qualification Framework
TCPC	Training, Counselling and Placement Cell
TI	Telephonic Interviews
TVET	Technical and Vocational Education and Training

KEY FINDINGS OF THE STUDY

Immediately After ITI		
Employment status immediately after ITI	Permanent Employment	0.26% (21)
	Temporary Employment	19.22% (1555)
	Self-Employment	3.91% (316)
	Apprenticeship	10.04% (812)
	Not Working - Unemployed but looking for a job	41.00% (3317)
	Not Working - Unemployed and not looking for a job	13.61% (1101)
	Advanced/ Further Studies	11.97% (968)
Permanent Employment		
When did you start your first job after passing out from ITI?	2017	0.00% (0)
	2018	9.52%(2)
	2019	66.67% (14)
	2020	23.81% (5)
Range of your monthly salary when you first started working after completion of ITI	4000-8000	4.76% (1)
	8000-12000	28.57% (6)
	12000-16000	23.81% (5)
	16000-20000	23.81% (5)
	20000-25000	14.29% (3)
	25000-30000	4.76% (1)
	30000-40000	0.00% (0)
	>40000	0.00% (0)
Temporary Employment		
When did you start your first job after passing out from ITI?	2017	3.02% (47)
	2018	19.16% (298)
	2019	48.30% (751)
	2020	29.52% (459)
Range of your monthly salary when you first started working after completion of ITI	4000-8000	15.56% (242)
	8000-12000	43.09% (670)
	12000-16000	28.87% (449)
	16000-20000	9.13% (142)
	20000-25000	2.51% (39)
	25000-30000	0.58% (9)
	30000-40000	0.19% (3)
	>40000	0.06% (1)
Self-Employment		
When did you start your first job after passing out from ITI?	2017	6.96% (22)
	2018	19.62% (62)
	2019	38.92% (123)
	2020	34.49% (109)

Range of your monthly income when you first started working after completion of ITI	4000-8000	41.46% (131)
	8000-12000	27.53% (87)
	12000-16000	16.77% (53)
	16000-20000	5.38% (17)
	20000-25000	4.43% (14)
	25000-30000	2.22% (7)
	30000-40000	1.58% (5)
	>40000	0.63% (2)
Apprenticeship		
When did you start your first job after passing out from ITI?	2017	3.33% (27)
	2018	13.79% (112)
	2019	34.85% (283)
	2020	48.03% (390)
Range of your monthly stipend when you first joined apprenticeship after completion of ITI	<4000	3.94% (32)
	4000-8000	74.01% (601)
	8000-12000	21.31% (173)
	>12000	0.74% (6)
Advanced / Further Studies		
Duration of Study	0-12 Months	4.44% (43)
	1 Year	6.71% (65)
	2 Years	54.75% (530)
	3 Years	34.09% (330)

Industry of your first job	
Permanent Employment	Public Service (42.86%)
Temporary Employment	Mechanical Engineering (15.76%)
Self-Employment	Electrical and Electronics Sector (20.89%)

Current Status		
Current employment status of the respondents	Permanent Employment	0.01% (1)
	Temporary Employment	5.75% (465)
	Self-Employment	4.68% (379)
	Apprenticeship	4.54% (367)
	Not Working - Unemployed but looking for a job	44.52% (3602)
	Not Working - Unemployed and not looking for a job	12.72% (1029)
	Advanced/ Further Studies	10.96% (887)
	Continuing the first job	16.81% (1360)

Permanent Employment		
Year of joining current job	2017	0.00% (0)
	2018	9.09% (2)
	2019	63.64% (14)
	2020	27.27% (6)
	2021	0.00% (0)
Range of your monthly salary of your current job	4000-8000	4.55% (1)
	8000-12000	27.27% (6)
	12000-16000	22.73% (5)
	16000-20000	22.73% (5)
	20000-25000	13.64% (3)
	25000-30000	9.09% (2)
	30000-40000	0.00% (0)
	>40000	0.00% (0)
Temporary Employment		
Year of joining current job	2017	1.66% (30)
	2018	14.19% (256)
	2019	37.92% (684)
	2020	32.54% (587)
	2021	13.69% (247)
Range of your monthly salary of your current job	4000-8000	14.63% (264)
	8000-12000	44.35% (800)
	12000-16000	28.38% (512)
	16000-20000	8.92% (161)
	20000-25000	2.83% (51)
	25000-30000	0.72% (13)
	30000-40000	0.11% (2)
	>40000	0.06% (1)
Self-Employment		
Year of starting the self-employment	2017	5.28% (20)
	2018	16.09% (61)
	2019	33.51% (127)
	2020	36.15% (137)
	2021	8.97% (34)
Range of your monthly income of your self-employment	4000-8000	37.73% (143)
	8000-12000	33.51% (127)
	12000-16000	15.57% (59)
	16000-20000	5.54% (21)
	20000-25000	3.69% (14)
	25000-30000	2.37% (9)
	30000-40000	1.06% (4)
	>40000	0.53% (2)

Apprenticeship		
Year of joining apprenticeship	2017	0.00% (0)
	2018	0.00% (0)
	2019	4.63% (17)
	2020	58.86% (216)
	2021	36.51% (134)

Range of your monthly stipend when you joined apprenticeship	<4000	1.36% (5)
	4000-8000	79.29% (291)
	8000-12000	17.98% (66)
	>12000	1.36% (5)
Advanced / Further Studies		
Duration of Study	0-12 Months	1.80% (16)
	1 Year	3.72% (33)
	2 Years	53.10% (471)
	3 Years	41.38% (367)

Industry of your first job	
Permanent Employment	Public Services (40.91%)
Temporary Employment	Mechanical Engineering (15.02%)
Self-Employment	Electrical and Electronics Sector (20.69%)
On the Job Training(OJT)/Internship/Industrial training provided during the course (NOT APPRENTICESHIP):	
Yes	5.08% (411)
No	94.92% (7679)
Duration of On the Job Training(OJT)/Internship/Industrial training (in days)	
1-5 days	83.45% (343)

EXECUTIVE SUMMARY

The Odisha state's Directorate of Technical Education and Training (DTET) is responsible for education at the Technical Institutes/Colleges, Bachelor's Degree, Diploma, and ITI levels. Additionally, it offers Vocational Education to equip youth for self-employment. Further, the Department encourages professional development opportunities in the public and private sectors. ITI trades and courses emphasise the development of students' skills in various trades. The popularity of ITIs has dwindled slightly throughout the years. Nowadays, students aspire to better academic programmes such as engineering, a diploma in engineering, and comparable courses.

DTET Odisha intends to conduct a study to ascertain the market demand for ITI graduates and the type of post-ITI employment. In a survey of 49 ITI institutes, 8090 students were questioned about a variety of factors affecting employment following completion of the ITI course. Out of 8090 students, 27.25% of them are currently employed. The study mainly includes two sections: employment immediately after ITI and the current employment status of the students.

Immediately after ITI:

The research study observed that only 19.48% of respondents were employed soon after completing their ITI training, with only 0.26 % securing permanent employment, and the remaining 19.22% have secured temporary jobs. Of the 21 permanently employed respondents, 42.86% are in the public service sector, and 28.57% are in the security forces sector. Whereas, out of 1555 temporarily employed respondents, 15.76 % are in the mechanical engineering sector, and 11.77 % are in the automobile sector. For which 47.62 % of the permanently employed respondents and 35.31% of temporarily employed respondents have taken 9-12 months to secure the job. Out of 3.91 % of self-employed respondents, 50.63 % are into the family business, and the rest into starting a new business with electrical and electronics is the most preferred sector.

Other than the employed respondents, respondents who are currently unemployed but looking for a job. This section of respondents highlighted no further communication from the companies, less demand for their preferred trade in their locality, and demand for work experience by the employers as the significant reasons for not securing a job immediately after ITI. Whereas the respondents who are currently unemployed and are not looking for a job mentioned family problems, no job related to training and waiting for apprenticeship opportunities as significant reasons for not looking for a job. About 11.97% of the respondents are pursuing further studies, 58.57% are pursuing a diploma, and 13.95% are pursuing an intermediate. Among the 10.04% of respondents who have joined apprenticeship training, about 65.39% have successfully completed the apprenticeship.

Current Employment Status:

The research study observed that only 22.57% of respondents are currently employed, with only 0.27 % securing permanent employment, and the remaining 22.30 % have secured temporary jobs. About 16.81% of the total respondents are continuing their previous job. Out of 1804 temporarily employed respondents, 15.02% are in the mechanical engineering sector and 12.20% in the electrical engineering sector. Out

of 4.68% of self-employed respondents, 52.77% are into their own business, with the automobile parts business the most preferred.

Other than the employed respondents, respondents who are currently unemployed but looking for a job were also questioned on various aspects of not getting a job. This section of respondents highlighted low salary, being far away from home and waiting for a government job as the significant reasons for not securing a job. Whereas the respondents who are currently unemployed and are not looking for a job mentioned family problems, planning to start a new business and lost job due to Covid as significant reasons for not looking for a job. About 10.96% of the respondents are pursuing further studies, 63.13% are pursuing a diploma, and 12.51% are pursuing an intermediate. About 4.54% of the total respondents are currently pursuing an apprenticeship.

One of the key outcomes regarding the on-the-job training is that about 94.92% did not receive any on-the-job training at their workplace. This training introduces the specific job at the workplace that gives training on skills, knowledge, and competencies required for the job. Organizing campus placements and Participation in Job fairs were key placement activities reported to have been provided by 50% of the respondents.

INTRODUCTION

Education is the pillar for social and economic progress, especially for a developing country like India. Education leads to improved functional and analytical ability within an individual, opening up numerous avenues to earn a livelihood and meeting the demand of a vastly diversified labour market of the country (Maitra and Maitra 2019). Better educated and skilled labour is imperative for faster and sustainable growth both for an individual and a nation. The role of Technical and Vocational Education thus stands vital in developing human resources of a country by creating skilled manpower, leading to enhanced industrial output and improved quality of life. They are efficacious strategies for addressing and mitigating the problems of inequality, as underscored by many policymakers and academics (Jahan 2016, HDI 2016). As Tara et al. 2016 write, with 26 million estimated young workforce entering every year into the market, vocational training becomes critical to government, corporate and industrial requirements.

ITIs under the Ministry of Skill Development and Entrepreneurship are the major training ground for the skilled workforce in India (Kumar 2016; Venkatram 2012). The first ITI was set up in 1950, and the number stands at **1,47,211** (including both government and private ITIs), providing vocational training in 106 trades. Of the 14,721 ITIs, around 3,179 are government training in 93 trades. With a mere 59 institutions in 1956, the number of ITIs frog-leaped to today's numbers indicating the extent of demand for employable industrial trades and the realization of policymakers to promote building a professional workforce to meet the industry demands.

Odisha has one of the most ambitious vocational training programs. With the demographic transition in the state wherein youths are emerging as the dominant segment of the society, focusing on their skill development has become its central priority. 49 Government ITIs are working under the Directorate of Technical Education and Training (DTE&T) Cuttack Odisha. The department provides vocational education for self-employment. It also promotes various professional courses to cater to the government and Private Sectors. Institutes run multitudes of schemes for rural and tribal youths, artisans, and marginalized sections of the society.

Despite its increasing importance, the state still grapples with unemployment putting serious concern on the quality of education and training. The challenge is facilitating ITIs to keep pace with the fast-growing technological demands of the industry. Studies were critical in identifying a flexible, adaptable workforce suitable for a new economy (Maitra & Maitra 2015, p. 318; Majumdar 2016; Mehrotra 2012). There are concerns about the lack of capacity-building of trainers and course managers, state-of-the-art training infrastructure, and an industry-ready student evaluation system, among others. An urgent need was thus felt towards the up-gradation of government ITIs, which can improve academic quality, trade network, quality of faculty, job opportunities and livelihood security of the vulnerable workforce.

The study tries to address these challenges through an in-depth mapping of the education, employment and income trajectories of ITI Pass-out students. It looks into institutional efficacy in terms of skills imparted, training received, placements facilities, industrial linkages vis-a-vis employment and income status of the pass-out students of 49 ITIs across the state. Industrial demand, barriers in the job market, and performance threw light on their professional success.

The study's insights highlight the ITI students' career path after passing out and their expectations while joining. This study's outcome will help assess the ITI training programs' impact on relevance, effectiveness, efficiency, and sustainability. This study brings in the performance level of Pass-out ITIians and brings necessary changes to improve the performance and implementation of **TVET programs**. The study findings measure the pass outs' labour market performance and enable constant growth at scale through excellence with results aptly supported by the consultant's professional commitment to Quality and accuracy.

In this regard, Core CarbonX Solutions Private Limited (hereinafter "CCX"), a strategic business advisory consulting firm, was appointed to conduct this study in the state of Odisha.

1.1 Overall Objective

The study's overall objective is to contribute towards improved performance of Government ITIs, Odisha, through increased knowledge on performances of pass-outs, their employability, and income status. The specific objectives are to:

a) Assess the quality of the ITI programs, including courses offered, training imparted, placement facilities provided concerning the market demand

b) Assess the employment status, including the factors and nature of employment of the pass-out graduates

c) Assess the income variability encompassing their workplace performances, salary, increments of the pass out graduates

1.2 Scope Of Work

- Only the students who have been graduated one year prior will be a part of the tracer analysis
- To analyze the nature of employment that they're engaged in permanent/ temporary basis
- To analyze whether they were employed with an acceptable time to get employed
- To analyze if the learning from the program (trade/ course) is aligned with the work requirements (to understand the job satisfaction of the trainees)
- To analyze the salary bracket that the ITI students fall into after one year of employment
- To analyze the change of employment and salary incremental from the first job.

1.3 Research Methodology

It is an explorative research study wherein the sample design is selected based on a proportionate stratified sampling method. The samples are spread over 49 Government ITIs across 30 districts of Odisha. The sample size considers competing needs so that costs and precision are optimally balanced. This sample size has been considered adequate for exploratory analysis to discover pass-out ITI student concerns. The study is based on the primary data collected from various stakeholders such as Pass-Out Graduates during 2016-19 and employers visiting the campuses. The study further entails feedback from 8000 students across all the 49 Government Industrial Training Institutes functioning in Odisha.

1.3.1 Research Instruments for the Survey

i) Key Person Interviews (KPIs) with Principals and Placement In-charge

KPIs entails a discussion about aspects of Training, Counselling and Placement Cell (TCPC), Enrolment, Pass-outs from CoE and CTS trades and Infrastructure facilities available with the ITIs.

1. Out of the total 49 ITIs, we have done 47 Principal interviews personally. Two principals could not appear in the interview because they suffered from Covid.
2. The interviews with 23 ITI Principals were done physically. The interviews with the Principals of the remaining ITIs were conducted online due to lockdown.
3. Overall, in 50% of cases, Principals were accompanied by Placement officers or Training officers.

ii) Interviews with Pass-outs

Pass-outs are defined as trainees who successfully pass out from the ITIs. Though trainees pass out from each ITI, the interviews were conducted only from those passed out in the 2016-2017, 2017-18 and 2018-19 examination. A minimum of 8000 students were interviewed to assess their current employment status, reasons for unemployment, satisfaction level with current job and relevance & importance of skills they learnt from ITIs in their career. However, this survey design was quasi-quantitative.

iii) Key Person Interviews with Industries/ Industry Bodies

Professionals from 25 industries were interviewed to understand ITI graduates' performance, quality, and relevance of ITI programs.

iv) Consultation Meetings

Consultation meetings were conducted with Placement Officers. A set of guiding questions were used during the meeting sessions to ensure consistent focus on the central issues captured in each research question.

The themes covered in the interview include caste, occupational dynamics, household size and composition, employment status immediately after passing out, current employment status, various training received, job fairs conducted in ITIs etc. Other themes include quality and relevance of the ITI education, school-to-work transition experiences and personal experiences in accessing different career options. The research facilitator conducted consultation meetings in the specified ITIs with DTE&T and the ITI Principals. 30% of meetings were completed with more than five faculty members present during the session compared to 49 ITIs.

1.3.2 Sampling Framework

The target population for the study comprises pass-out students from all 49 Government ITI's. The total number of samples was collected 8000. As the survey envisaged many samples, the study team collected a list of students admitted into the college. Initially, the study wanted to follow Stratified Random Sampling for selecting sample units and sample respondents for the survey. However, after receiving the initial database, it was seen that most students' phone and contact numbers were not traceable. Thus, the CCX team started tracing all students in the database wherever possible and reached out to them. The sample chosen over the 49 Government ITIs covers ST, SC and Girls from all Government ITIs in Odisha.

The sample size for ITIians includes 8090 samples for the Tracer Study from the last three years. Computer Assisted Web Interviewing (CAWI) and/or Computer Assisted Telephone Interviewing (CATI) were done only for the ITI graduates outside the state / abroad. Face to face interview with the rest of all who resides within the state of Odisha was conducted.

Questionnaire

A standard questionnaire was developed as per the defined research objectives and questions to be answered. The questionnaire was kept short while comprising closed-ended questions to encourage a high response rate.

Pre-testing/Pilot Study

The researcher cleaned the data and performed pre-testing of the developed questionnaire. During the test/pilot phase, special attention was given to the following questions:

i) Are all questions answered? – to understand **'why 'not'** to make necessary changes and what steps to be taken **'if 'not'** answered

ii) Which questions are difficult to understand?

iii) Are the options to each question definite and cover the existing range?

iv) How long does the process take?

v) Are the questions relevant and leading to meaningful derivations or Analysis?

In the survey, extensive data collections were performed using a detailed survey questionnaire for ITIans personal interviews. This phase comprises interviews with relevant stakeholders such as placement cells, industries, industry bodies, etc. The survey constitutes face-to-face personnel interviews by using the survey form and/ or Computer Assisted Personal Interviewing (CAPI) and/or Computer Assisted Web Interviewing (CAWI) and/or Computer Assisted Telephone Interviewing (CATI).

1.3.3 Data Collection and Analysis Methods

The researcher used appropriate methods to increase the response rate and capture data in the required form for ease of analysis. As per the Guidance Note for States on conducting Tracer Study, traditional tracer study through field survey was not encouraged. The data collection techniques mentioned in the Guidance note is proposed drawing learning from the pilot tracer study conducted by DGT. It suggests digital methods to reduce time, cost and improve response rate compared to traditional tracing and interviewing methods. It further indicates that the digital techniques were also effective during the pandemic with minimal need for on-site travel and physical meeting. However, the Researcher followed the combination of Computer-Aided Telephonic Interviews (CATI), Telephonic Interviews (TI), Schedules / Computer-Assisted Personal Interviews (CAPI) suitable to reach the target population in their region.

Data collection and Identification of existing information

CCX prepared the survey plan for the survey of sample units across 49 ITI's. The survey teams mobilized to the respective site based on the population data's finalisation. A complete listing of ITIians admitted for 2015-16, 2016-17, 2017-18, 2018-19 of the 49 Govt. The Researcher pursued iTIs in consultation with DTE&T and 49 ITI's.

The number of responses from each district is depicted in Figure 1.1.

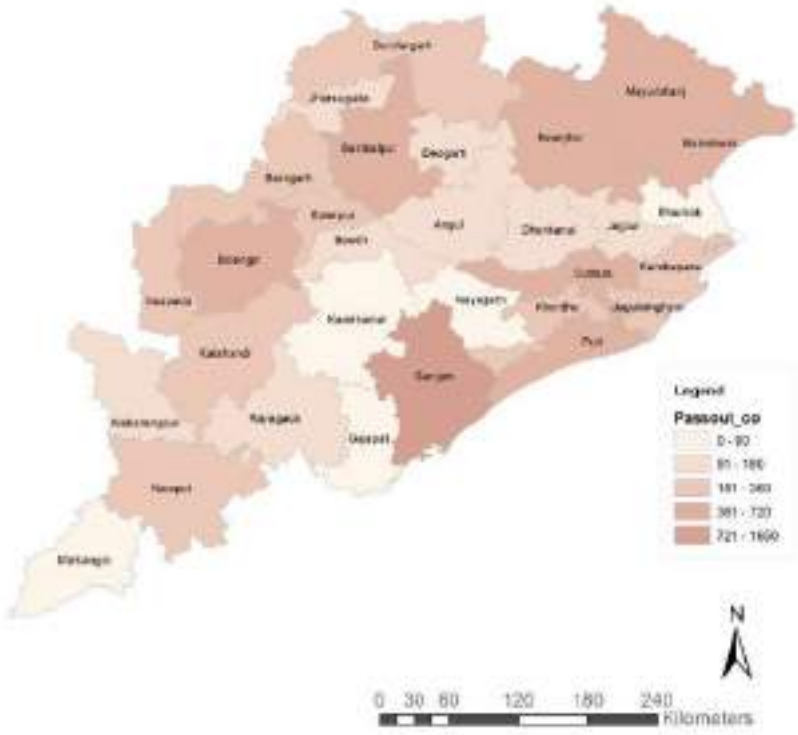

Figure 1. 1: Number of Responses from each District

A total of 8090 samples from the complete list of pass-out students were collected. The maximum number of students traced and responses received from the samples collected were from ITI Cuttack, i.e., 9.52% with 769 responses and minimum number at ITI Kotpad, Koraput and ITI Nayagarh with 11 and 13 responses, respectively, as shown in Table 1.1.

Table 1. 1 Number of responses from each ITI in Odisha

Name of ITI	Response representation % in the overall survey	Response Count
Gandhamardana ITI, Bolangir	1.57%	127
Gopabandhu ITI Ambaguda, Koraput	2.34%	189
ITI Anandapur, Keonjhar	2.58%	209
ITI Balasore	4.00%	324
ITI Barbil, Keonjhar	2.89%	234
ITI Bargarh	1.33%	108
ITI Barkote, Deogarh	1.25%	101
ITI Berhampur, Ganjam	6.42%	519
ITI Bhawanipatna, Kalahandi	2.21%	179
ITI Bheden, Bargarh	0.33%	27
ITI Bhubaneswar, Khurda	1.80%	146
ITI Bolangir	3.40%	275
ITI Boudh	1.00%	81

ITI Chandahandi, Nabrangpur	0.37%	30
ITI Chandragiri, Mohana	0.26%	21
ITI Chhatrapur, Ganjam	4.64%	375
ITI Cuttack	9.51%	769
ITI Dhenkanal	1.12%	91
ITI Gajabahal, Raygada	0.37%	30
ITI Gumma, Gajapati	0.21%	17
ITI Hinjilcutt, Ganjam	6.95%	562
ITI Hirakud, Sambalpur	7.69%	622
ITI Jajpur	0.28%	23
ITI Jharsuguda	0.33%	27
ITI Khariar Road, Nuapada	2.65%	214
ITI Khariar, Nuapada	0.58%	47
ITI Kotpad, Koraput	0.14%	11
ITI Laxmipur, Koraput	0.30%	24
ITI Malkanagiri	0.73%	59
ITI Matheli, Malkanagiri	0.36%	29
ITI Nayagarh	0.16%	13
ITI Patangi, Koraput	0.20%	16
ITI Phulbani, Kandhamal	1.00%	81
ITI Puri	4.89%	396
ITI Purusottampur, Ganjam	3.92%	317
ITI Raigada, Gajapati	0.21%	17
ITI Raighar, Nabrangpur	0.37%	30
ITI Rasanpur, Sambalpur	0.38%	31
ITI Raygada	0.96%	78
ITI Rourkela, Sunderagarh	3.81%	308
ITI Shergarh, Ganjam	0.17%	14
ITI Sonepur	4.43%	358
ITI Talcher, Anugul	2.22%	180
ITI Umarkote, Nabrangpur	0.99%	80
Madhusudan ITI, Cuttack	1.04%	84
Purna Chandra ITI Baripada, Mayurbhanj	0.69%	56
SIPT Pattamundai, Kendrapada	2.22%	180
Special ITI for PWD, Jatni, Khurda	0.78%	63
TTI Takatpur, Mayurbhanj	3.93%	318
Total		**8090**

A) Collection of Secondary data

The Secondary data was collected from past DTE&T records and State Government database(s). The connection with relevant stakeholders was established to gather the information on pass out, current

employment status, unemployment status, job satisfaction and relevance of skill learnt from ITIs issues. The researcher then compiled and analyzed the information.

B) Access to the Research Site and Participants

For the research study, 49 ITI's were visited, and the study team carried out consultation meetings with the ITI's Principals and officials. Efforts were made to access the ITIs via the DTE&T Office, and ITI's placement officers were connected directly. In addition, the study team had also conducted one to one consultations with the industry representatives.

C) Primary Data Collection and Compilation

Primary data using structured questionnaires were conducted for the Tracer students and the Employers from all the 49 ITI institutions. Stratified random sampling was adopted for the study. A total 8090 number of pass-out students from the last three years data were taken to assess their current employment status, satisfaction level with their current job and relevance & importance of skills they have learnt from ITIs in their career.

The proposed study in 49 ITIs is focused on tracer analysis in studying the complex array of risk antecedents encompassing students' pre-entry attributes, goals and commitments, and academic and social experiences at the ITI.

The basis of the study was to capture qualitative and quantitative insights through a survey of ITIians (pass out) and one to one interviews with ITIs Placement Cells, Industries associations, Employers, Parents and other relevant Stakeholders and focus group discussion. The survey comprises either one of them or mixed of Computer Assisted Web Interviewing (CAWI) and/or Computer Assisted Telephone Interviewing (CATI) and/or Computer Assisted Personal Interviewing (CAPI) and/or Face to Face Interview.

D) Data Entry

The online Zoho survey tool was utilized for capturing the survey data. Data collected through CAWI/CATI was uploaded to a cloud server from the tablet/phone. The full range of answers for open or semi-open questions was classified. Information collected through CAPI/CAWI/CATI was stored with an adequately defined data framework in the cloud.

The percentage of total and partial non-responses was measured to assess the quality of the data. Validation of data processing and checking for consistency were the essential steps in taking the baseline values. Based on quantitative and qualitative criteria, the procedure for correcting inconsistent data or providing missing entries was applied when required. Measures were taken to avoid erroneous imputations.

The final data sets were compiled, and consistency checks were performed to the approval of the CCX project team.

E) Collation and Analysis of Data

Upon completing the data entry process, the data entry supervisor prepared a single database file (.dbf) containing all the instruments. The consultant carried out a detailed framework and comprehensive plan to collate the information for analysis. The field validation survey data pursued a synthesis of conclusions and insights.

The researcher has presented key findings through a consultative workshop to the project stakeholders and supervising team. Based on the department's inputs, the report was finalized, and a full report containing information on the survey methodologies, results of the assessment and recommendations were submitted.

Deliverables

- Draft Evaluation Report
- Final Evaluation Report
- Consultation Workshop

SOCIO-ECONOMIC PROFILE

This section depicts the impact of three significant indicators: caste, parents' occupational background, and family size on the employment status of the pass-out students. These three factors form the basis of the study.

When it comes to a child's life, the level of parental participation, whether positive or negative, impacts the child's eventual job choice. Young students and young adults frequently regard their parents as having had a significant influence on their career decision. Individuals' job aspirations are also influenced by their parents' educational and financial backgrounds (Mau, 2000). Generally, pupils aspired to a career as high as feasible as their parents. Children whose parents hold a college degree have a higher level of aspiration than students whose parents are illiterate or hold a high school diploma (Senthilselvam.S, 2015).

Recent research in demographic economics bolsters the concept that smaller family sizes (i.e., lower fertility) might stimulate economic development and aid in poverty reduction, both at the household and aggregate levels. Since household resources are shared among fewer members, smaller families are more likely to escape poverty traps and reduce the intergenerational transmission of poverty. One significant method of high reproduction affecting economic development is children's educational attainment. Children from larger families receive less education and have impaired health due to parents being financially constrained to spend on each child's education and health. It is more difficult for financially challenged households to send children to school, as children in these households frequently contribute to the family's revenue. Economically speaking, the cost of school attendance, both direct and indirect (i.e. opportunity cost), increases with family size, resulting in lower educational attainment for children from bigger households (Becker, 1973).

2.1 Student Profile And Family Background

The student profile and family background present a brief understanding of the age, gender, caste and parents' profile.

The age bracket of the students who responded to the survey ranges from 17 to 28 years. The maximum number of responses was from the age group of 19 to 22 years with 65.46%. The minimum number of responses was from the age group of above 28 years with 4.43%.

More responses from the age group 19-22 are due to the availability of organised data of students at ITI institutes from 2017. All the previous records were not recorded in an organised manner.

Table 2. 1 Age group of respondents

Age Group	Response Percent	Response Count
<18	3.56%	288
19-22	65.46%	5296
23-27	26.55%	2148
>28	4.43%	358
	Total	**8090**

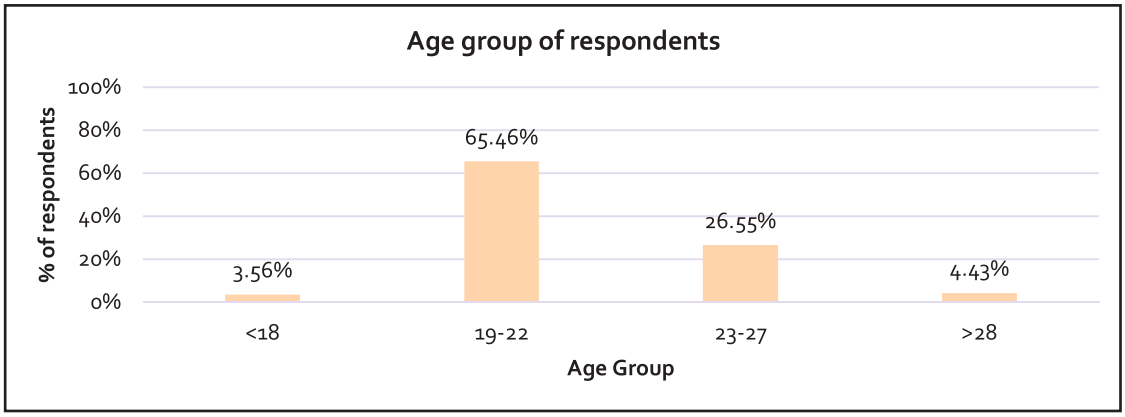

Figure 2. 1: Age Group of Respondent

2.2 Ratio Of Male to Female Respondents

The data analysis shows that the maximum number of responses recorded belong to the male gender, with 7218 responses accounting for 89%. Only 872 responses were from the female gender accounting for 11%.

Table 2. 2 Percentage of Male and Female respondents

Age	Male	Female	Response Count	Male %	Female %
<18	232	56	288	3.21%	6.43%
19-22	4778	518	5296	66.19%	59.47%
23-27	1907	241	2148	26.42%	27.67%
>28	301	57	358	4.18%	6.43%
Total	**7218**	**872**	**8090**		

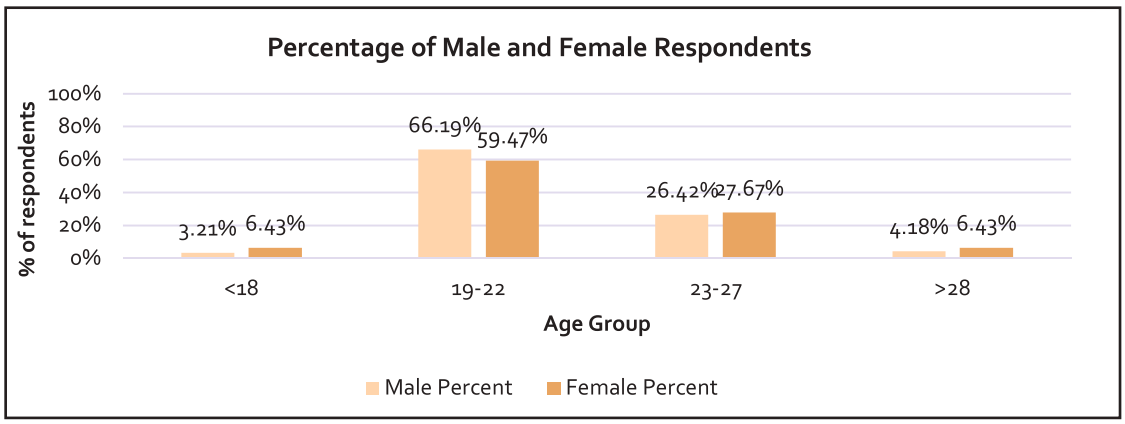

Figure 2. 2: Percent of Male and Female Respondents

2.3 Students' Family Size:

The family size of a student impacts the employment of the students. In the field, there were cases where students did not pursue any job after their studies as they had to look after their younger siblings or take up some family responsibilities.

The data analysis indicates that about 34.72% of respondents have 2 siblings, and 28.29% have one sibling. About 2.54% of the respondents have more than 5 siblings.

Table 2. 3 Number of siblings

Number of siblings	Response Percent	Response Count
0	3.66%	296
1	28.29%	2289
2	34.72%	2809
3	17.55%	1420
4	8.89%	719
5	4.35%	352
6	1.64%	133
7	0.57%	46
8	0.22%	18
9	0.10%	8
Total		**8090**

2.4 Caste Wise Description Of Respondents

The analysis indicates that the maximum number of all-male respondents belongs to the OBC category with a response count of 2452, accounting for 39.20%. The minimum number of male respondents belongs to the scheduled tribe category with a response count of 874, accounting for 12.11%. From the data analysis, it was observed that there are approximately equal numbers of female respondents from varied caste categories.

Among all the female respondents, the maximum respondents belong to the general category with a response count of 224, accounting for 25.72%. The minimum respondents belong to the OBC category with a response count of 202, accounting for 23.19%.

Table 2. 4 Percentage of respondents with respect to caste

Caste	Responses	Male	Male Response %	Female	Female Response %
General	2452	2228	30.86%	224	25.72%
OBC	3032	2830	39.20%	202	23.19%
SC	1498	1286	17.83%	212	24.23%
ST	1108	874	12.11%	234	26.87%
Total	**8090**	**7218**		**872**	

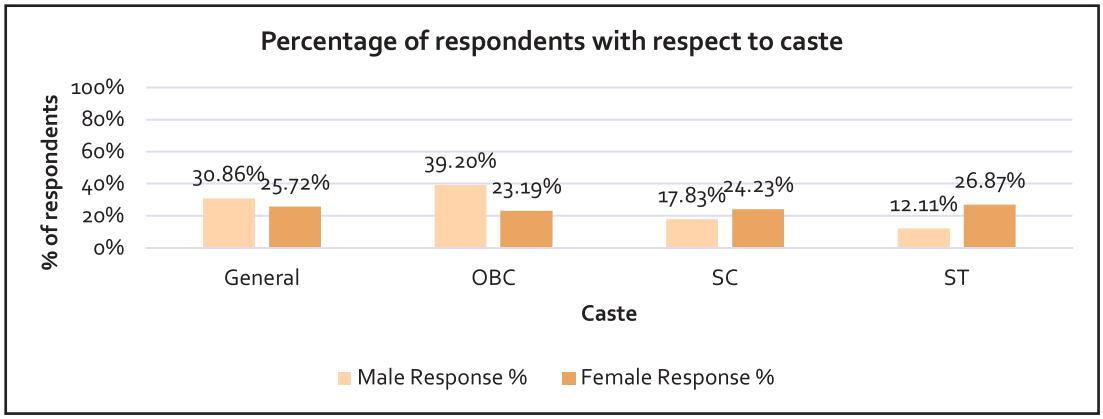

Figure 2. 3: Percent of Respondent with respect to Caste

2.5 Parents Occupational Background

The data analysis reveals that about 43.51% (3464 respondents) of the respondents' parents have education below the 10th standard. About 4.52% (333) of the respondents' parents are uneducated. About 55.83% (4517) of the respondents' parents have their occupation as farming, 21.55% (1744) of them are self-employed, and 4.02% (326) are unemployed.

Table 2. 5 Respondent's Parent's Education vs Parent's Occupation

Parent's Education	Parent's Occupation					
	Farmer	Job	Others	Self-employment /Entrepreneur /Business	Unem-ployed	Grand Total
<Below 10th	3464	443	3	1047	177	5134
=>Above 10th	574	424	-	505	63	1566
Diploma	4	6	-	1	2	13
Graduation	1	-	-	-	-	1
Engineering	73	143	-	72	5	293
ITI	17	28	-	17	46	108
Post-Graduation	-	-	409	-	-	409
Uneducated	8	14	-	12	3	37
Others	376	33	-	90	30	529
Total	8090					

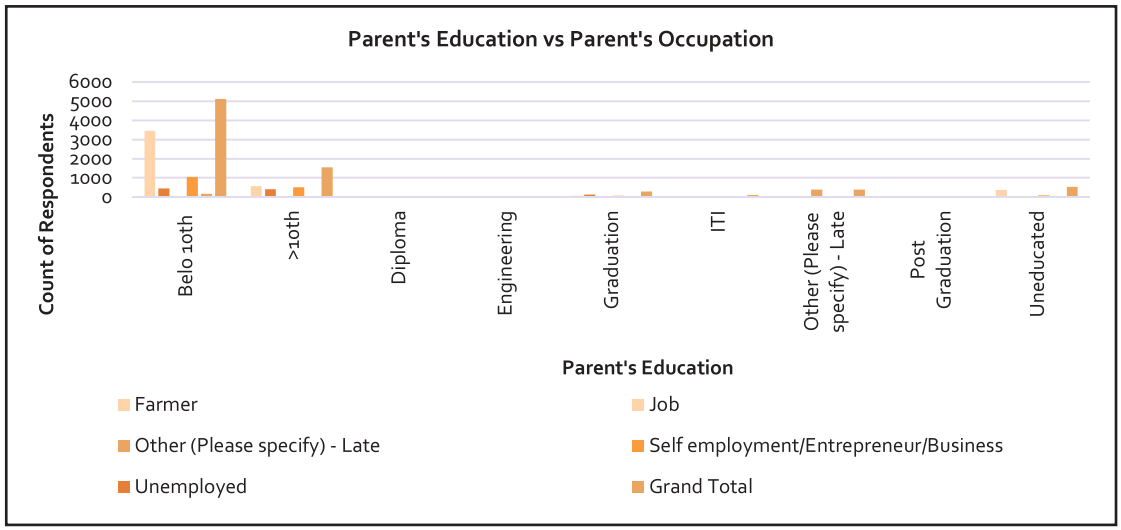

Figure 2. 4: Respondent's Parent's Education vs Parent's Occupation

PROFILE OF ITI STUDENTS

The current chapter analyses data gathered from industrial training institutes included in the study. The analysis is divided into two parts: the students' placement cells and placement procedures of the ITI students and appropriate suggestions for improving the admission procedure for ITI students and ITI pass-out students' employability. This section below provides details of the availability of the placement cells and indicative placements in the ITI institutes.

3.1 Average Indicative Placement

Average Indicative Placement represents the placement of students in the industries after they have passed out of the Institutes successfully.

3.2 Availability Of Placement Cell in the Institute

This section is responsible for the placement of Pass-out Students in the Industries as per the Trade and Industry demands. Placement committee in ITI's partner with industry corporations who wish to recruit from the passing out students. The placement cell aims to get students placed in good companies when they start their careers. The analysis of Placement Cell availability reveals that all the 49 Govt. ITI Institutes are equipped with Placement Cells.

3.3 MoU's Signed By The ITI's:

The number of MoUs signed by the ITIs with the industries from the survey reveals that about 34% of the 49 ITIs have not signed any MoUs with the industries. The rest of them have signed MoUs with various industries such as Iglu Preservation, Vijaya Steel, Bhusan & VISA steel, L&T, JSPL, OHPC, Vedanta, WESCO, Nalco, Apollo Transformer, Swain & sons, Sri Sai Surya rice mill. Neelachal Ispat Nigam Ltd., Alfa Transformer, M/s Sankar Engineering, M/s Maa Bhawani Industry and many more. Upon the analysis of all the 49 ITIs, it is evident that ITI Ambaguda, Koraput has the maximum number of industries visited in three consecutive years, i.e., 107. (An average of 30 to 32 industries per year)

3.4 Pass Out Percentage Of The ITI's:

Pass-out rates is another critical internal efficiency indicator of ITIs that wish to transform themselves into efficient institutes with better employment rates. All the 49 ITIs have recorded an average pass percentage of more than 60 %. An estimated 12 ITIs score a pass percentage of more than 90%.

3.5 Employment Rate:

The employment rate is defined as the number of employed students to the total number of students in ITI. From the data collected from the interviews conducted with the Principals of it is, it is clear that out of all the 49 ITIs, ITI Purushottampur, Ganjam has the highest employment rate of 70% and ITI Berhampur with 65%. From the survey outcomes, it was revealed that ITI Hinjilcutt has more number of respondents who are employed.

INDUSTRY PERSPECTIVES

Odisha is predominantly an agricultural State. It is observed that the share of Wage employment is significantly less in the total employment. A large portion of the ITI graduates is still grappling with unemployment. The main objective behind completing any course work is to make oneself employable and earn for the family, which will be fulfilled only after the industry accepts them and remunerates them for their skills.

The consultations with various Industries have given a lot of insights into the employability opportunities of ITI students. Theoretically, the development and training of the technical skill set would be enough to get employment, but practically, it takes much more than just graduating from the ITI. The outcomes of the consultations with industries and industry associations in both formal and informal sectors were collated and are presented below.

Employment opportunities are numerous in the market. Utilizing these opportunities takes a solid technical skill set backed up by manageable soft skills. Developing soft skills or communication skills is a struggle for most ITI graduates. The skills required for the Job and the theoretical teaching in the Institute mismatch at times, especially with the current automated production processes.

The formal sector of the industries is swiftly moving towards automation in the production process. Industries are looking for students who can manage the subfloor work through automation, irrespective of their background. In this context, many formal sector industries are looking forward to hiring students with Diploma or Engineering backgrounds. One of the other prime reasons for this is the establishment of numerous colleges producing many Diploma or Engineering graduates every year. This caters to the availability of many resources from the streams of Diploma and Engineering and who can best fit into the job profile of the industries in managing the automated operation work. In addition, many of the sector's representatives highlighted those industries want to have fewer problems associated with UNION. This is one of the reasons industries have started preferring diploma students for automated jobs. Unions are major industrial components in modern industrial relations, which are now considered a sub-system that seeks to serve the specific sub-groups interest and considered itself a part of the organization in terms of its viability and contribution to the community's growth of which it is a part. Many of the ITI related engagement is now being transferred to the third party by the formal sector, which reduces their exposure associated with UNION activities. The formal sector industries are reluctant to hire the ITI graduates in the apprehension that they might lead to the formation of Labour and Trade Unions, which will further create obstacles for the industry and its day to day functioning.

The highest share of work in the industries is outsourced to third party contractors and these contractors, in turn, depend on the ITI students. However, the current scenario indicates that competition is surging between the ITI coursework and the short-term skill coursework. In addition, various corporate are infusing the fund through their Corporate Social Responsibility (CSR) initiatives and training the students with the latest equipment/machinery and short term skill development programme. After passing out ITI, students compete with these short-term skill forces, which is a severe psychological barrier for many students seeing value in ITI.

Labours with short-term skills are entering the market in large numbers, making it more competitive as they are ready to do the same job with the same or less remuneration. This makes the skilled labour from it is less in demand as the industry prefers to get the job done more or less in the same manner with a lower cost of production. The sector also prefers contractual labour as they are easy to handle and have less workload on the management. They do not have to make them permanent or give them the facilities and benefits they are supposed to provide to the regular employees and hence lesser cost of production.

The graduates who successfully attain apprenticeship often fail to convert it into a permanent or regular job in the industry. This primary cause for this might be the gap between the expectations of the industry and the ITI graduates.

PASS-OUT SURVEY OUTCOMES

This section details the Respondents enrolment year in ITI's, Trade selected during their coursework, Pass-out Year of the Respondents and the Matriculation percentage of Pass-out respondents. This features the student's quality in their previous academics and their enrolment in ITI's.

5.1 Year Of Enrolment In ITI's

The respondents' data collected shows that the maximum number of respondents, i.e., 48.71% (3941), has enrolled on the ITI in 2017, and only 12.69% (1027) have enrolled in the ITI in 2015.

Table 5. 1 Year of Enrolment in ITI

Year of Enrolment in ITI	Response Percent	Response Count
2015	12.69%	1027
2016	19.49%	1577
2017	48.71%	3941
2018	19.10%	1545
Total		8090

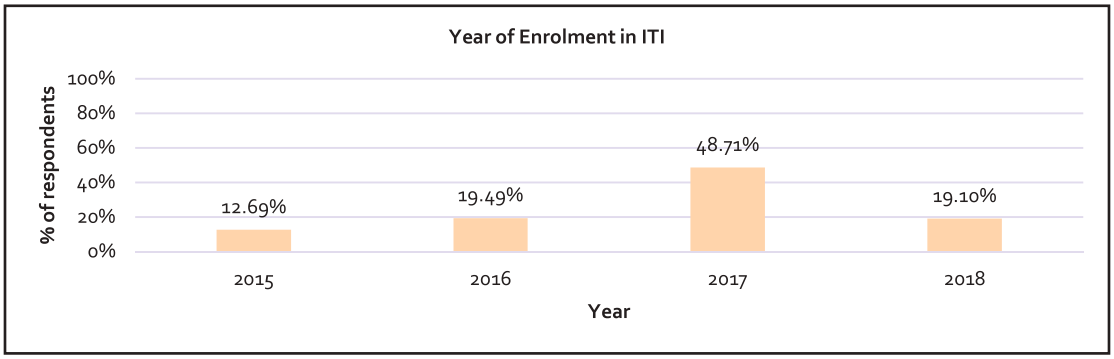

Figure 5. 1: Year of Enrolment in ITI

5.2 Trade Selected By Respondents

The National Skills Qualifications Framework (NSQF) is a competency-based framework that organizes all qualifications according to a series of knowledge, skills, and aptitude levels. These levels, graded from one to ten, are defined in terms of learning outcomes, which the learner must possess regardless of whether they are obtained through formal, non-formal or informal learning. The ITIs across Odisha provides NSQF courses, and it is observed that the demand for NSQF courses is relatively high. The Trade selection by ITI Respondents reveals that maximum respondents have their trade as Electrician category accounting to 13.6% and Fitter category (NSQF) trade accounting to 12.65%. The following preferred trade is the Welder category accounting for 9.89%.

Table 5. 2 Trade selected by respondent

Trade	Response Percent	Response Count
Attendant Operator (Chemical Plant)	0.06%	5
Attendant Operator (Chemical Plant) (NSQF)	0.02%	2
Blaster /Short Firer SCVT	0.01%	1
Carpenter	0.10%	8
Carpenter (NSQF)	0.94%	76
CoE BBBT (Auto)	0.15%	12
CoE BBBT (Electrical)	0.59%	48
Computer Hardware & Network Maintenance	0.19%	15
Computer Hardware & Network Maintenance (NSQF)	0.52%	42
Computer Operator and Programming Assistant	0.57%	46
Computer Operator and Programming Assistant (NSQF)	1.94%	157
Draughtsman (Civil)	0.32%	26
Draughtsman (Civil) (NSQF)	0.37%	30
Draughtsman (Mechanical)	0.11%	9
Draughtsman (Mechanical) (NSQF)	0.09%	7
Dress Making	0.33%	27
Dress Making (NSQF)	0.85%	69
Electrician	13.60%	1100
Electrician (NSQF)	12.16%	984
Electronics Mechanic	2.42%	196
Electronics Mechanic (NSQF)	2.56%	207
Fabrication Sector (CoE)	0.42%	34
Fitter	12.29%	994
Fitter (NSQF)	12.65%	1023
Food & Beverages Services Assistant (NSQF)	0.10%	8
Foundryman	0.14%	11
Foundryman (NSQF)	0.28%	23
Industrial Painter	0.06%	5
Industrial Painter (NSQF)	0.07%	6
Information Communication Technology System Maintenance	0.62%	50

Information Communication Technology System Maintenance (NSQF)	0.91%	74
Instrument Mechanic	0.43%	35
Instrument Mechanic (NSQF)	0.40%	32
IT Sector (CoE)	0.16%	13
Laboratory Assistant (Chemical Plant)	0.04%	3
Laboratory Assistant (Chemical Plant) (NSQF)	0.15%	12
Machinist	1.04%	84
Machinist (NSQF)	1.46%	118
Marine Engine Fitter	0.10%	8
Marine Engine Fitter (NSQF)	0.04%	3
Mate (Mines) SCVT	0.11%	9
Mech. Repair & Maintenance of Heavy Vehicles	0.21%	17
Mechanic (Motor Vehicle)	1.78%	144
Mechanic (Motor Vehicle) (NSQF)	2.22%	180
Mechanic (Refrigeration and Air-Conditioner)	0.87%	70
Mechanic (Refrigeration and Air-Conditioning) (NSQF)	0.64%	52
Mechanic (Tractor)	0.15%	12
Mechanic (Tractor) (NSQF)	0.17%	14
Mechanic Auto Body Painting (NSQF)	0.20%	16
Mechanic Auto Body Repair (NSQF)	0.19%	15
Mechanic Diesel	0.89%	72
Mechanic Diesel (NSQF)	2.41%	195
Mechanic Machine Tool Maintenance	0.04%	3
Mechanic Machine Tool Maintenance (NSQF)	0.09%	7
Mechanic Mechatronics	0.01%	1
Mechanic Mining Machinery (NSQF)	0.17%	14
Painter (G) NM	0.17%	14
Painter General	0.15%	12
Painter General (NSQF)	0.04%	3
Plastic Processing Operator	0.16%	13
Plastic Processing Operator (NSQF)	0.48%	39

Plumber	0.33%	27
Plumber (NSQF)	0.87%	70
Process Plant Maintenance Sector (CoE)	0.02%	2
Production and Manufacturing (CoE) Converted CTS	0.15%	12
Pump Operator-Cum-Mechanic	0.14%	11
Pump Operator-Cum-Mechanic (NSQF)	0.56%	45
Sewing Technology	0.28%	23
Sewing Technology (NSQF)	0.75%	61
Sheet Metal Worker	0.10%	8
Sheet Metal Worker (NSQF)	0.46%	37
Stenographer & Secretarial Assistant (English)	0.88%	71
Surveyor	0.15%	12
Surveyor (NSQF)	0.06%	5
Technician Mechatronics (NSQF)	0.04%	3
Textile Wet Processing Technician	0.01%	1
Tool & Die Maker (Press Tools, Jigs & Fixtures) (NSQF)	0.04%	3
Turner	0.99%	80
Turner (NSQF)	0.99%	80
Welder	9.89%	800
Wireman	2.00%	162
Wireman (NSQF)	0.89%	72
Total		**8090**

5.3 Course Duration of ITI Respondents

The table below infers the course duration of ITI respondents during their term period at their respective ITI institutes. From the data analysis, it has been observed that 75% (6073) of the respondents have enrolled in the 2-year courses, and approximately 25% have enrolled in the 1-year course. A very negligible percentage of respondents have enrolled themselves in the three-year-long courses.

Table 5. 3 Course Duration of respondent

Course Duration	Response Percent	Response Count
1 Year	24.89%	2014
2 Years	75.07%	6073
3 Years	0.04%	3
Total		**8090**

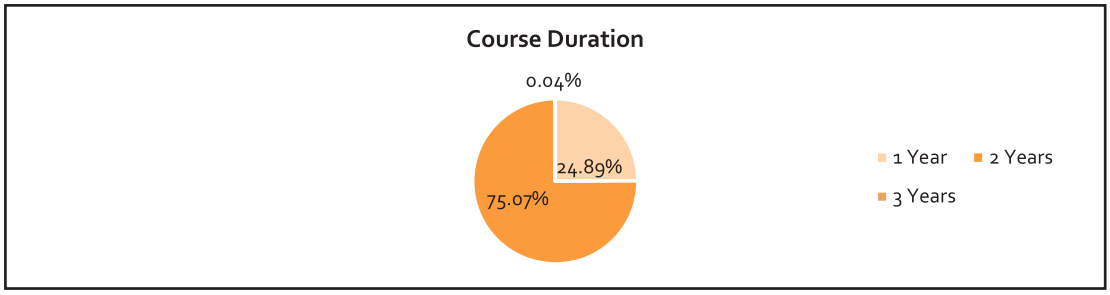

Figure 5. 2: Course Duration of Respondents

5.4 Pass-Out Year of Respondents

The following Table and Graph presents the pass-out year of ITI Respondents. Data Analysis indicates that a maximum number of respondents, i.e. 55.02% have passed out in 2019. 24.78% of respondents have passed out in the year 2018.

Table 5. 4 Pass-Out year of respondents

Pass-Out Year	Response Percent	Response Count
2017	15.33%	1240
2018	24.78%	2005
2019	55.02%	4451
2020	4.87%	392
Total		**8090**

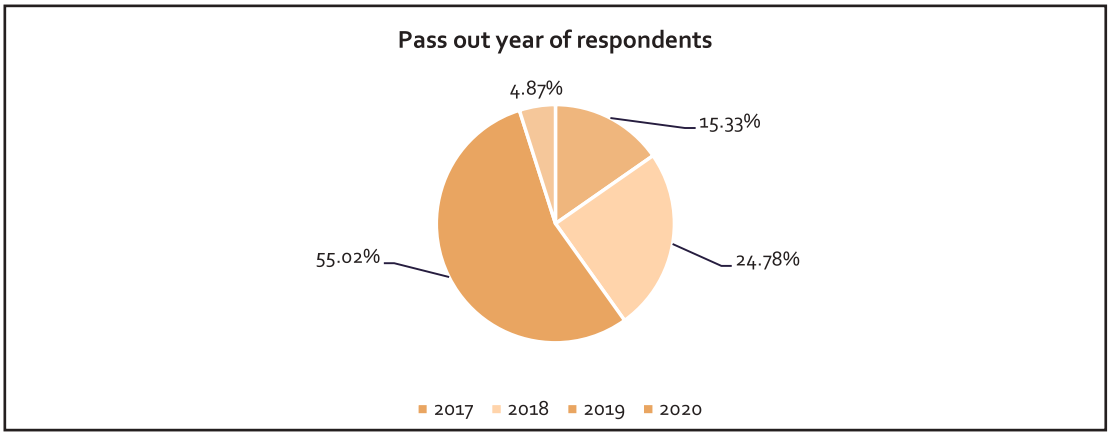

Figure 5. 3: Pass-Out year of Respondents

5.5 Pass Percentage of Respondents

To better understand the final pass percentage of marks secured by the respondents, the data has been collected and categorized into 4 categories, as shown in the table below.

The analysis shows that about 38% of the respondents have secured more than 75% in their final exams. Around 54% of the respondents have secured 60-75%. Only 3% of the respondents have secured 30-45% in their final exams.

Table 5. 5 Pass Percentage of respondents

Pass Percentage	Response Count	Response Percent
30-45	204	3%
45-60	446	6%
60-75	4354	54%
>75	3086	38%
Total		8090

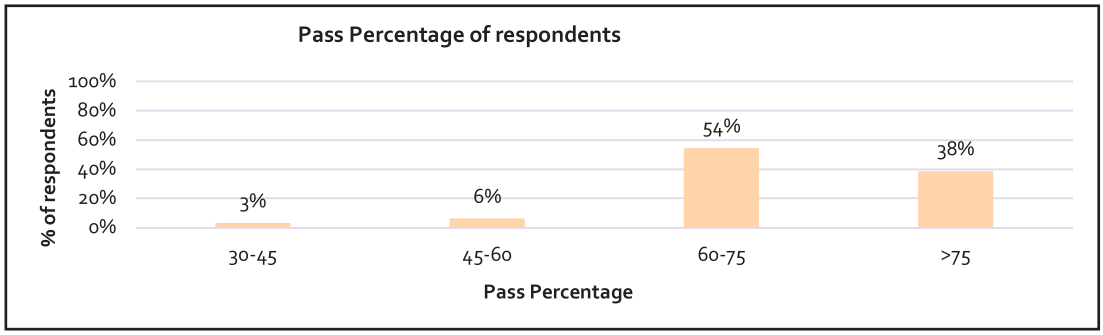

Figure 5. 4: Pass Percentage of Respondent

5.6 Previous Academic (10th) Pass Percentage of Respondents

The below Table and Graph depicts the previous Academic passing and the percentage secured in matriculation before enrolling themselves in the ITI institutes. Upon analysis, it has been identified that about 98% of the respondents have passed the 10th standard, and the remaining 2% are yet to pass the 10th standard.

Table 5. 6: Percentage of 10th pass students

10th Pass Students	Response Percent	Response Count
Yes	98.36%	7957
No	1.64%	133
	Total	8090

Similarly, when analysing the pass division secured by 10th pass-out students, of the 7957 respondents who have passed the 10th division, about 38.5% have passed the 10th standard in the 2nd division, 37.50% in the 3rd 24% in the 1st division.

Table 5. 7: 10th Pass-Out Division of Respondents

10th Pass-Out Division	Response Percent	Response Count
First	23.97%	1907
Second	38.54%	3067
Third	37.49%	2983
	Total	8090

5.7 Stipend Received During Coursework In The ITIs

Upon querying whether the respondents have received a stipend during the ITI course duration, 39.64% (3207) of them affirmed yes, and 60.36% (4883) are yet to receive any stipend as answered by the respondents.

Table 5. 8: Stipend during ITI

Stipend during ITI	Response Percent	Response Count
Yes	39.64%	3207
No	60.36%	4883
	Total	8090

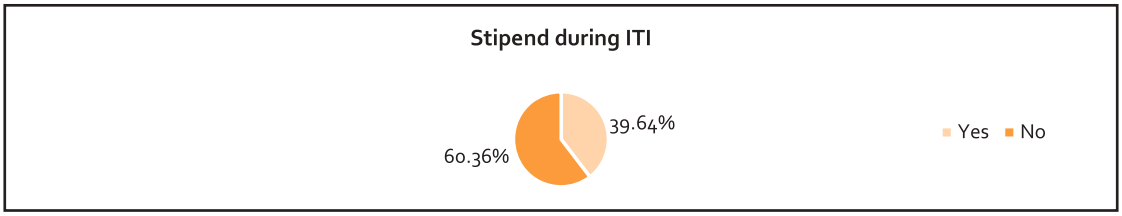

Figure 5. 5: Stipend during ITI

5.8 Employment Status Of Respondents Immediately After Passing Out Of ITI

5.8.1 Employment Status immediately after the completion of ITI course

To understand the employment status of the pass-out students immediately after completing the ITI course, the study collected data from 8090 respondents. Data analysis shows that only 19.48% of the respondents have been employed immediately after completing their ITI course, out of which only 0.26% have secured permanent employment. The rest, 19.22%, have secured temporary employment. 41% of the respondents are unemployed and looking for a job and about 13.61% are unemployed and not looking for a job. About 10.04% of the respondents have joined apprenticeships, and 3.91% are self-employed. Out of all the respondents, 11.97% of the respondents are pursuing advanced/further studies.

Table 5. 9 Employment status after pursuing ITI

After completion of the ITI course	Response Percent	Response Count
Paid employment – Permanent	0.26%	21
Paid employment – Temporary	19.22%	1555
Self-employment	3.91%	316
Apprenticeship	10.04%	812
Not working – Unemployed but looking for a job	41.00%	3317
Not working – Unemployed but not looking for a job	13.61%	1101
Advanced/ Further studies	11.97%	968
	Total	8090

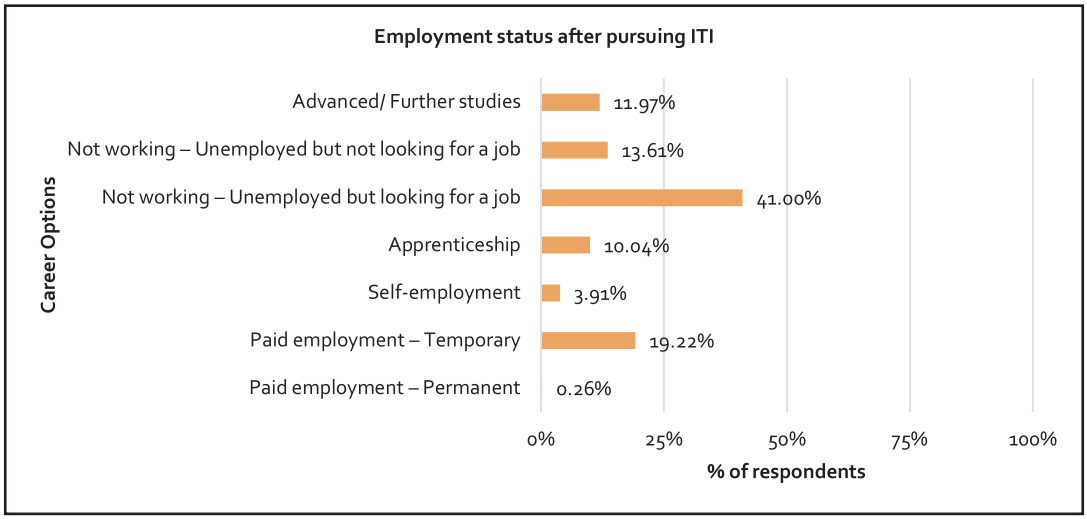

Figure 5. 6: Employment Status after pursuing ITI

Out of 21 respondents who are permanently employed immediately after ITI, 2 respondents belong to ITI Hinjilcutt, 2 belong to ITI Cuttack and 2 are from ITI Purushottam-pur. Out of 1555 respondents who are temporarily employed, the maximum respon-dents of 222 belong to ITI Hinjilcutt followed by 166 respondents from ITI Berhampur and 139 respondents from ITI Cuttack.

5.8.2 Employment Status with respect to Gender

Analysis of gender differences in the employment status indicates that out of the 872 female respondents, -43% are unemployed and still looking for a job, whereas 23.74% of respondents are unemployed. However, this 23.74% are not interested in the job anymore. About 14.91% are pursuing advanced studies, and 2.41% are self-employed. A significantly low percentage (7.57%) of female respondents has secured temporary employment. The analysis also shows that about 8.37% of the female respondents have secured an apprenticeship.

Table 5. 10 Employment status with respect to gender

Gender	Advanced/ Further studies	Appren-ticeship	Not work-ing – Unem-ployed but looking for a job	Not work-ing – Un-employed but not looking for a job	Permanent	Temporary	Self-em-ploy-ment
Female	14.91%	8.37%	43.00%	23.74%	0.00%	7.57%	2.41%
Male	11.61%	10.24%	40.76%	12.39%	0.29%	20.63%	4.09%

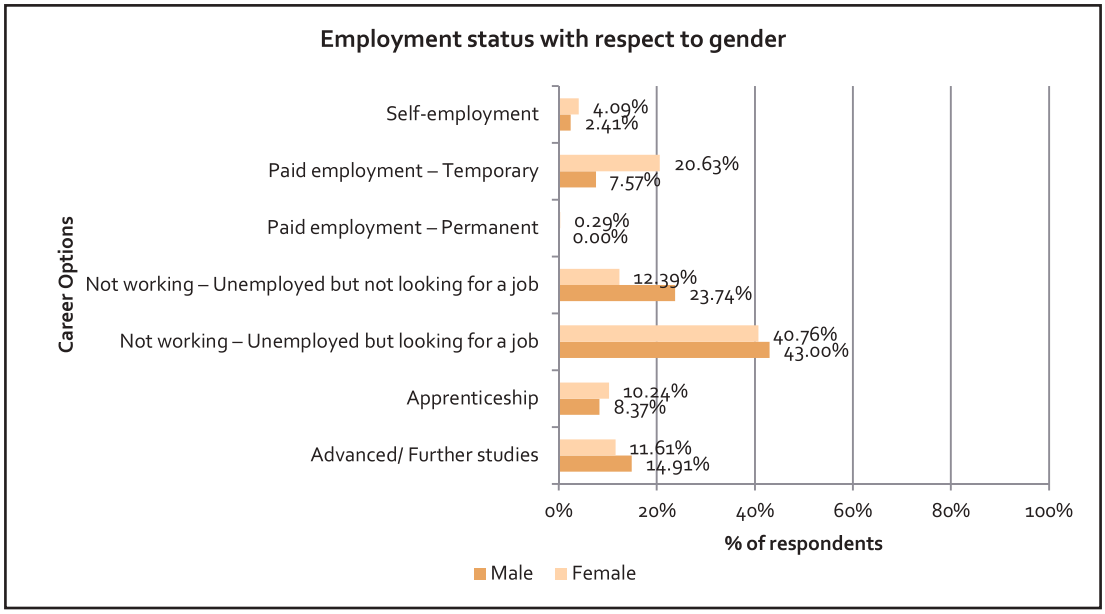

Figure 5. 7: Employment Status with respect to gender

On the other hand, the analysis reveals that out of the 7218 male respondents, about 40.76% are unemployed but looking for a job, and 12.39% are unemployed but not interested in any position. About 11.61% are pursuing advanced studies whereas 4.09% are self-employed. An estimated 20.63% of the male respondents have secured a temporary job, while a very low percentage of the respondents, i.e. 0.29%, are permanently employed in an industry. The analysis further reveals that around 10.24% have enrolled themselves in apprenticeships.

ITI PATAMUNDAI - "Going against all Odds"

ITI girl students generally prefer or choose any computer course (computer operating and programming assistance (COPA), stenography, data entry), sewing technology, fashion designing, etc. While conducting an interview with the Principal in Pattamundai ITI, we had an opportunity to interact with a girl student doing an ITI course in Electrical Trade. Many of her near & close relatives discouraged her from taking Electrical as a specialization because they believed that she wouldn't perform on the field as a girl. But breaking the Stereotype mentality & up against the odds, the same girl repaired an Electric fault in the village by climbing a tall 220 Volt electric pole all by herself, taking all the safety measures. She is now an inspiration and encourages many girls to take up the Electrical Trade in ITI. When queried about her choice, she replied - "Because some seats are always reserved for women, we can get the job easily".

5.8.3 Employment status with respect to caste

The study has also analysed the employment status and the respondents' social groups. It reveals that significantly fewer students have secured permanent jobs in all the castes. The percentage of unemployed but looking for a job is higher across all the social groups.

Table 5. 11 Employment status with respect to caste

Caste	Advanced/ Further studies	Appren-ticeship	Not work-ing –Unem-ployed but looking for a job	Not work-ing –Unem-ployed but not looking for a job	Permanent	Temporary	Self-em-ployment
General	13.01%	10.07%	38.01%	11.62%	0.45%	21.04%	5.79%
OBC	11.91%	8.67%	40.60%	13.46%	0.23%	21.31%	3.83%
SC	11.42%	9.81%	43.39%	13.82%	0.07%	18.62%	2.87%
ST	10.56%	13.99%	45.49%	18.14%	0.18%	10.29%	1.35%

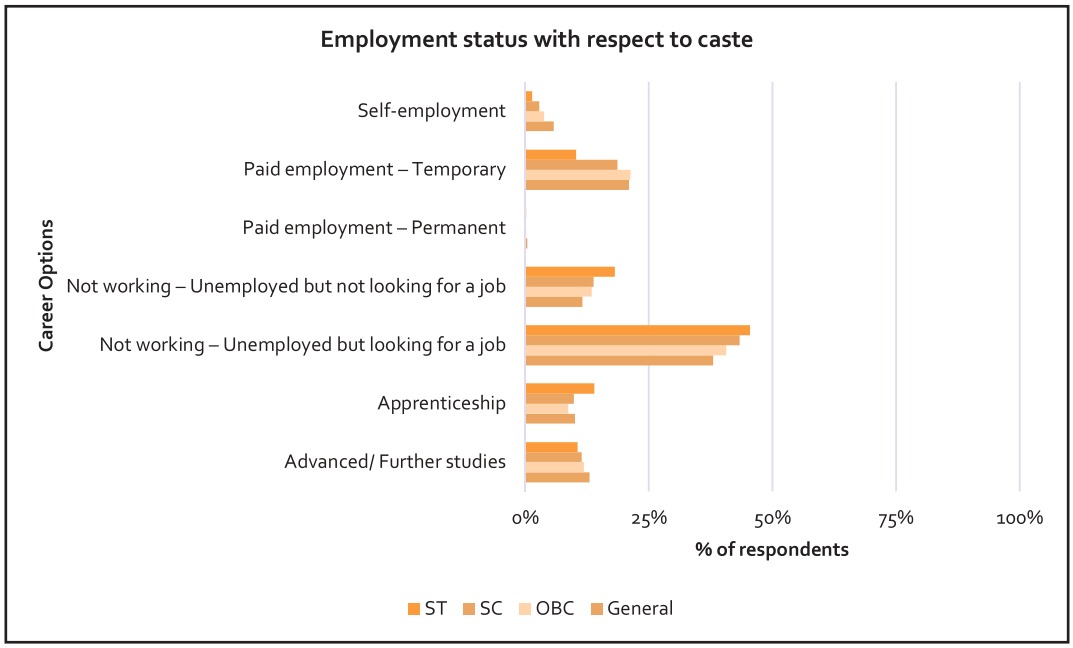

Figure 5. 8: Employment status with respect to caste

5.8.4 Employment status with respect to family size

On analysing the family size with the students' employment status, it is observed that most students with 1 or 2 siblings are currently not employed but are looking for a job.

Table 5. 12 Number of siblings vs Employment status

Number of Sib-lings	Ad-vanced/ Further studies	Appren-ticeship	Not work-ing – Un-employed but look-ing for a job	Not work-ing – Un-employed but not looking for a job	Paid em-ployment – Perma-nent	Paid em-ployment – Tempo-rary	Self-em-ployment	Grand Total
0	54	25	138	25	1	42	11	296
1	319	206	985	270	4	426	79	2289
2	302	295	1112	407	6	565	122	2809
3	156	156	572	207	5	270	54	1420

4	71	67	302	104	5	140	30	719
5	42	39	129	51	0	80	11	352
6	13	19	51	24	0	21	5	133
7	7	2	16	9	0	9	3	46
8	4	1	11	1	0	0	1	18
9	0	2	1	3	0	2	0	8

5.8.5 Employment status with respect to parent's occupational background

On further analysis of the parent's occupational background with student's employment status, most of the students whose parents are farmers are currently unemployed and looking for a job, or are currently working in a temporary job.

Table 5. 13 Respondent's Parent's Occupation vs Employment Status of Respondent

Occupation of Parent's	Ad-vanced/ Further studies	Appren-ticeship	Not working – Unem-ployed but look-ing for a job	Not working – Unem-ployed but not looking for a job	Paid em-ployment – Perma-nent	Paid em-ployment – Tempo-rary	Self-em-ployment	Grand Total
Farmer	462	381	1929	652	9	931	153	4517
Job	183	130	409	131	4	201	33	1091
Other (Please specify) - Late	42	61	165	61	-	66	17	412
Self-employ-ment/Entrepre-neur/Business	254	180	708	193	6	304	99	1744
Unemployed	27	60	106	64	2	53	14	326

5.8.6 Status of Respondents Who re Employed

A) Securing Jobs in their trade of study

On querying the 1576 respondents who are employed regarding securing a job in their relevant Trade studied at their respective ITIs, the response was captured as given in the below table.

Of the 21 respondents working in permanent paid employment, about 28.57% of respondents are relevant to the trade. In contrast, out of 1555 respondents working in temporary jobs, 60.51% of respondents are relevant to trade.

Table 5. 14 Relevance to Trade

Relevant to trade	Permanent	Temporary
Yes	28.57%	60.51%
No	71.43%	39.49%

B) Location of Employment

Out of 21 respondents working in permanent paid employment, 76.19% of respondents are placed in the same state, and the remaining 23.81% are placed out of state. In the case of temporary paid employment, out of 1555 respondents, 53.57% are placed outside the state, and the remaining 46.43% are placed in the state.

Table 5. 15 Place of Employment

Place of Employment	Permanent	Temporary
State	76.19%	46.43%
Outside the State	23.81%	53.57%

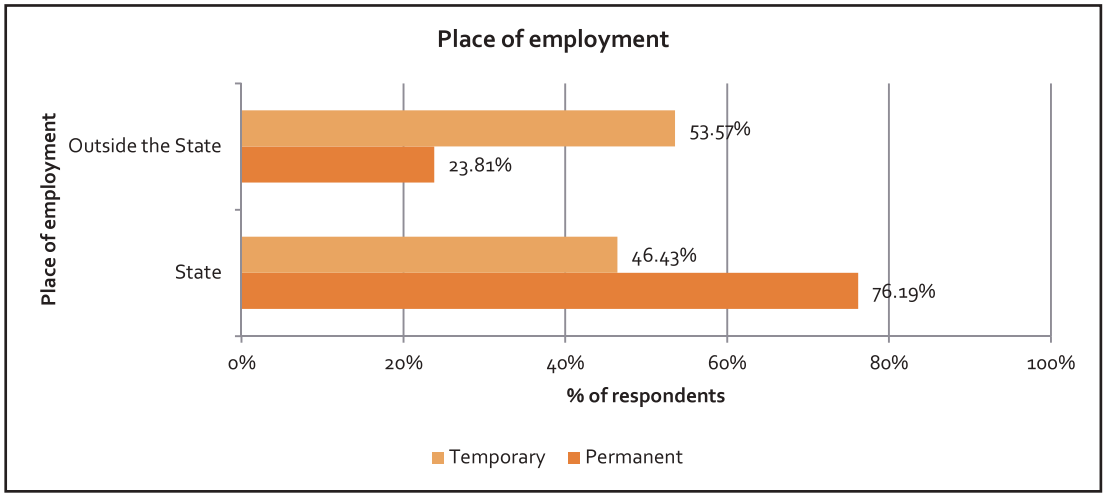

Figure 5. 9: Place of Employment

C) Sector/ Industries of Employment

The following table and graph represent the pass-outs' employment sector, i.e. respondents placed in permanent, temporary, apprenticeship, Public or Private sector, Non-Governmental Organizations, etc. Upon querying, it is observed that all the respondents (21 respondents) who have permanent paid employment are employed in Public Sector Units (PSUs).

Table 5. 16 Sector of Employment

Where are you employed?	Permanent	Temporary
Public Sector Unit (PSU)	100%	0.13%
Private Organisation	0%	99.74%
Non-government organization (NGO)	0%	0.13%

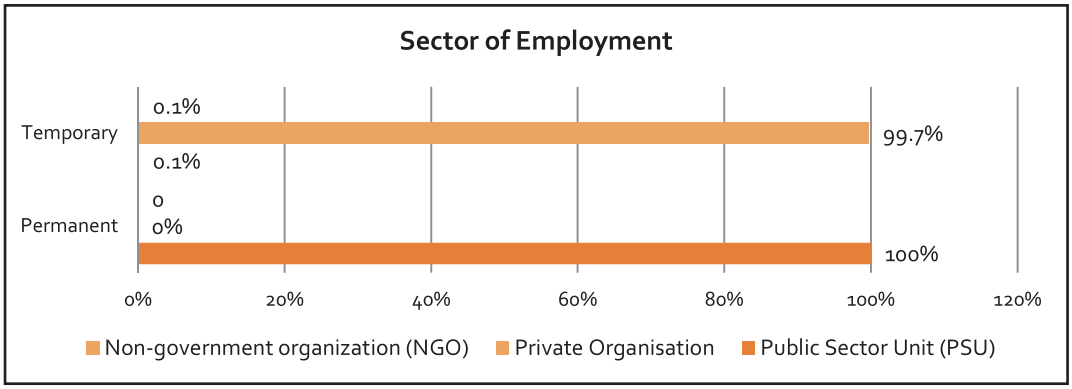

Figure 5. 10: Sector of Employment

Analysis of the below table indicates that of the 21 respondents who have secured permanent jobs, about 43% have positions in the public service, and 28.6% have jobs in the defence/armed forces. About 14% have secured jobs in the security forces sector, whereas 4.7% have secured employment in the metal/chemical industries.

The analysis also reveals that out of 1555 respondents who have secured temporary jobs, about 16% have secured employment in the mechanical engineering sector, 12% in the automobile sector and about 11% in the electrical engineering sector.

Table 5. 17 Industry of the first job

Industry	Permanent	Temporary
Agriculture & other rural sector	0.00%	6.17%
Automobile	0.00%	11.77%
Commerce	0.00%	0.84%
Computer Operator	0.00%	0.39%
Construction	0.00%	7.59%
Delivery Agent	0.00%	0.96%
Defence/Armed Forces	28.57%	0.13%
E- Commerce	0.00%	1.67%
Education	0.00%	1.48%
Electrical Engineering	0.00%	11.06%
Electronics Technicians	0.00%	0.19%
Financial Service	0.00%	3.60%
Food/beverage Processing Industries	0.00%	2.12%
Forestry & Wood	0.00%	0.39%
Health Care Service/Pharmacy	0.00%	2.12%
Hotels, Tourism, Restaurants	0.00%	1.09%
ICT, Telecommunication	0.00%	2.64%
Mechanical Engineering	9.52%	15.76%
Media, Culture, Graphics	0.00%	0.39%

Metal or Chemical industries	4.76%	6.17%
Mining & Oil/gas	0.00%	1.35%
Other (Please specify)	0.00%	3.54%
Public Service	42.86%	1.22%
Security Forces	14.29%	0.19%
Shipping, Fisheries	0.00%	0.32%
Textile, Leather, Footwear	0.00%	3.60%
Transport	0.00%	0.84%
Transport equipment manufacturing & maintenance	0.00%	10.29%
Utilities (water, gas, electricity)	0.00%	2.12%

D) Time Taken to Secure the Job

The analysis reveals that 23.81% of the respondents took 4-6 months, and 47.62% took 9-12 months to secure a permanent job. 9.52% of the respondents had to wait 6-9 months, and 14.29% took 2-4 months to secure a permanent job. Only 4.76% of the respondents took about 0-2 months to secure a permanent position.

The analysis further reveals that about 35.31% of the temporary paid employees took 9-12 months to get the job, and about 26.62% of them secured the position in 4-6 months.

Table 5. 18 Time taken for securing a job

Time taken (in months)	Type of employment	
	Permanent	Temporary
0-2 Months	4.76 %	8.68 %
2-4 Months	14.29 %	13.76 %
4-6 Months	23.81 %	26.62 %
6-9 Months	9.52 %	15.63 %
9-12 Months	47.62 %	35.31 %

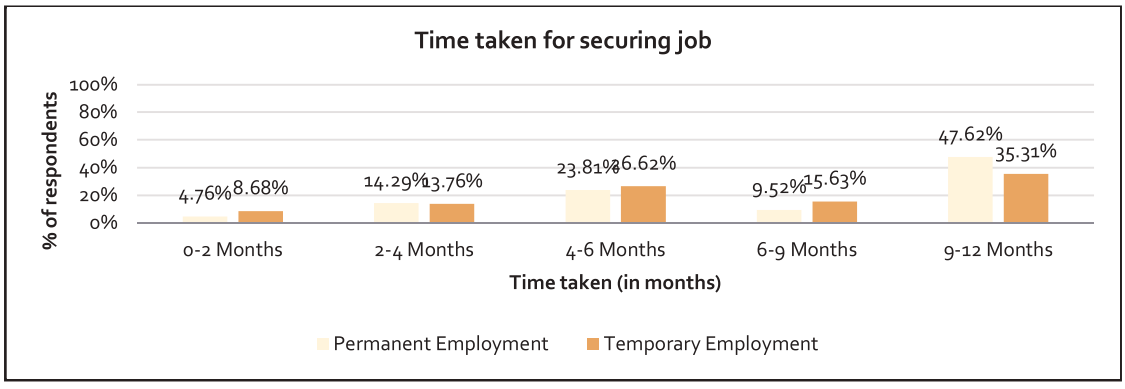

Figure 5. 11: Time taken for getting a job

E) Year of Joining Job After Passing Out from ITI

Data Analysis on the year of joining job, 23.81% of respondents with permanent paid employment have commenced their job in 2020. Of all the respondents, a maximum number of respondents started their careers in 2020, and the least was in 2017.

Analysis of the data reveals (48.30%) of the temporary paid employees joined the job in 2019, and 29.52% joined in 2020.

Table 5. 19 Year of joining job after ITI

Year of Joining	Permanent	Temporary
2017	0.0%	3.02%
2018	9.52%	19.16%
2019	66.67%	48.30%
2020	23.81%	29.52%

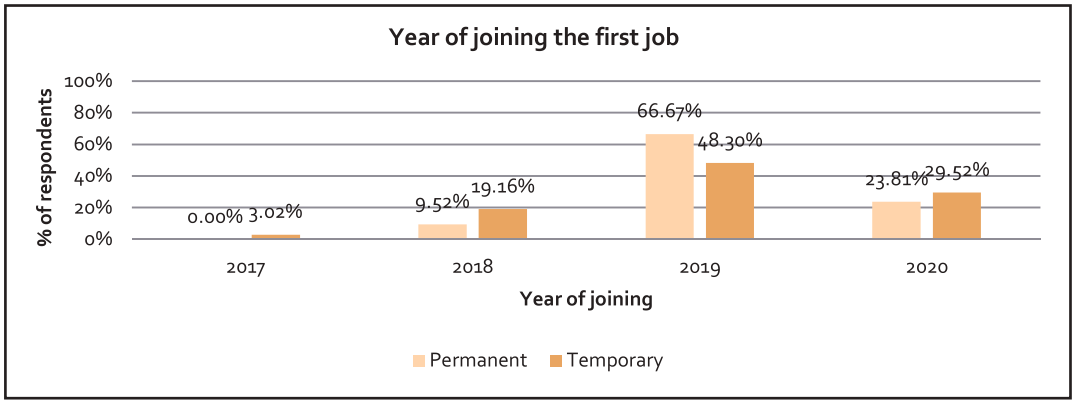

Figure 5. 12: Year of joining job after ITI

F) Monthly Earnings by the Pass-Out Students in Their First Job

On assessing the monthly income of different respondents (permanent and temporary) categories, 28.57% of total respondents (i.e. 21 respondents) having permanent paid employment earn around INR 8,000- INR 12,000 monthly. A significantly less percentage (4.76%) of permanently employed respondents earns in the bracket of INR 25,000- INR 30,000 monthly.

43.09% of total respondents (i.e. 1555 respondents) having temporary employment earn around INR 8,000- INR 12,000 monthly. A significantly less percentage (0.58%) of temporarily employed respondents earns in the bracket of INR 25,000- INR 30,000.

Table 5. 20 Monthly Income of respondents (in INR)

Monthly Income (in INR)	Permanent	Temporary
4000-8000	4.76%	15.56%
8000-12000	28.57%	43.09%
12000-16000	23.81%	28.87%
16000-20000	23.81%	9.13%
20000-25000	14.29%	2.51%
25000-30000	4.76%	0.58%
30000-40000	0.00%	0.19%
>40000	0.00%	0.06%

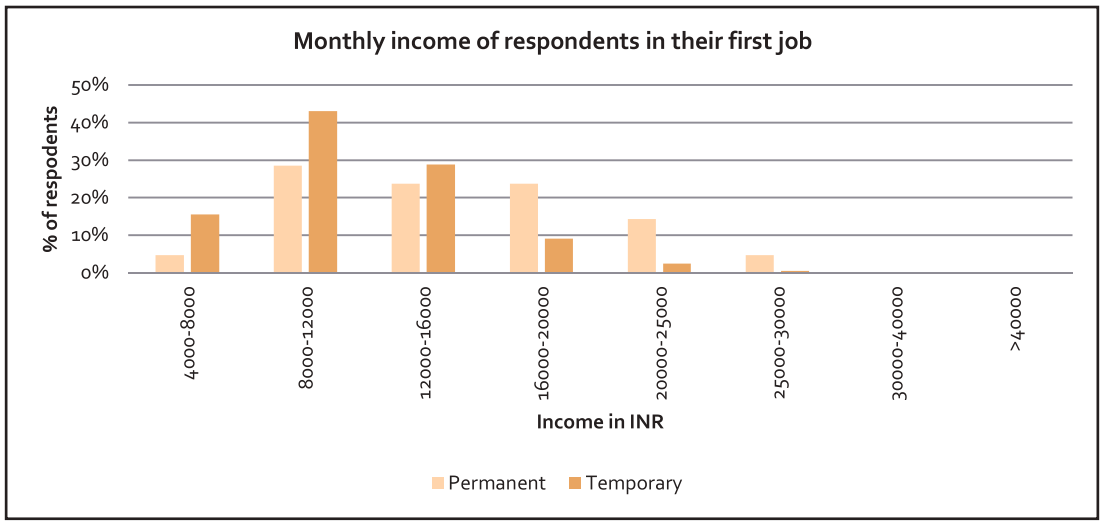

Figure 5. 13: Monthly Income of respondents

G) Methodology Adopted to Learn About Employment

The below table depicts that the most popular method adopted by the respondents to get the job is through job portals. 76.19% of the respondents with permanent employment and 4.76% of the respondents with temporary employment have adopted this method.

Table 5. 21 Method adopted for securing a job

The method adopted for job	Permanent	Temporary
Through contacts	19.05%	61.16%
Through newspaper add	0.00%	1.67%
Directly approached	4.76%	6.95%
Through ITI	0.00%	24.05%
Through job portals	76.19%	4.05%
HR Consultancy	0.00%	0.51%
Referral from the previous employer	0.00%	1.61%

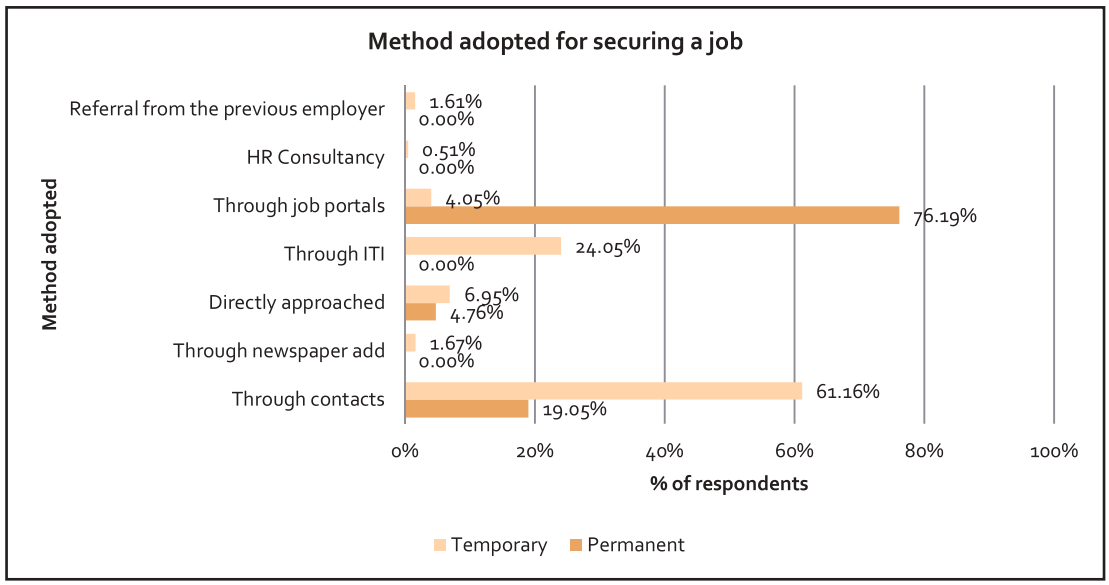

Figure 5. 14: Method adopted for securing a job

5.8.7 Status of Self-Employed Respondents

Out of the 812 respondents who are self-employed immediately after ITI, 40 respondents belong to ITI Cuttack, 36 respondents belong to ITI Puri and 33 respondents belong to ITI Sonepur.

A) Ownership of Business

The data analysis reveals that out of 316 self-employed respondents, about 51% are into the family business, and the remaining 49% have ventured into a new business setup.

Table 5. 22 Ownership of business when self-employed

Ownership of business	Response Percent	Response Count
Family Business	51%	160
New Business	49%	156
	Total	**316**

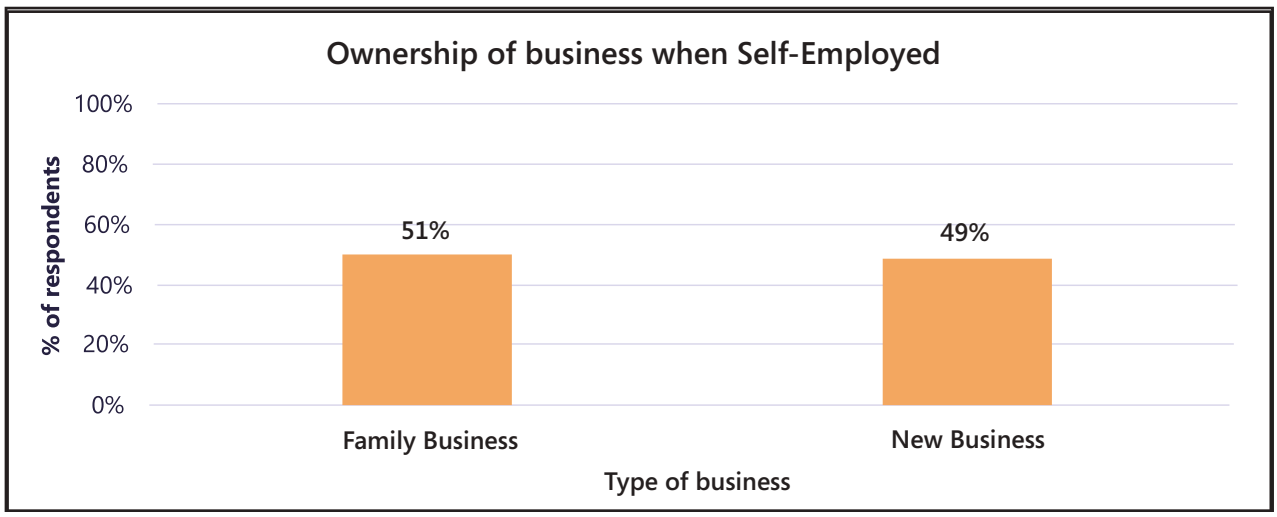

Figure 5. 15 Ownership of business when self-employed

B) Sector of Self-Employment

Further analysis indicates that out of the 316 self-employed respondents, about 21% have started their own business in the electrical and electronics sector. The analysis can inducted that this sector is the most preferred sector for self-employment.

Table 5. 23 Type of Self-Employment

Type of Self-Employment	Response Percent	Response Count
Agro Machinery-Repairs & Sales	0.63%	2
Automobile-Repairs/Garage	5.70%	18
Automobiles parts-Sales	3.48%	11
Barber Shop/Saloon	0.95%	3
Boutique	0.00%	0
Carpentry services	0.95%	3
Confectionary/Sweet Shop	1.27%	4
Construction/ Real estate	1.90%	6
Cyber Cafe/ Internet Cafe	1.90%	6
Electrical & Electronics	20.89%	66
Electrical Fitting & Wiring	7.28%	23
Fabrication-Services	2.22%	7
Farming	5.38%	17
Financial Services	4.11%	13
Flowers-Trading	0.63%	2
Garments-Mfg.	1.27%	4
Grocery/Vegetable/Meat Shop	8.54%	27
Hardware Shop	2.22%	7
Hotels & Restaurants	1.90%	6
Jewellery-sales	0.95%	3
Marriage Hall decorations	0.95%	3
Medical Shop	0.32%	1
Mobiles-Sales and Services	3.16%	10
Other (Please specify)	0.63%	2
Painting Services	1.27%	4
Photo studio	0.95%	3
Pipe Fittings-Sales & services	2.53%	8
Provisions Store/Warehouse/ Stock Yards	3.16%	10
Rewinding Shop	0.63%	2
Tailoring & embroidery	2.22%	7
Transport Services	7.91%	25
Tutor	4.11%	13
	Total	**316**

C) Location of Self-Employment

On further probing about the work location for the self-employed respondents, 84% (266 respondents) of them affirmed having set up their home as a workplace.

Table 5. 24 Self-Employed at Home Location

Self-employed at Home Location	Response Percent	Response Count
Yes	84%	266
No	16%	50
	Total	316

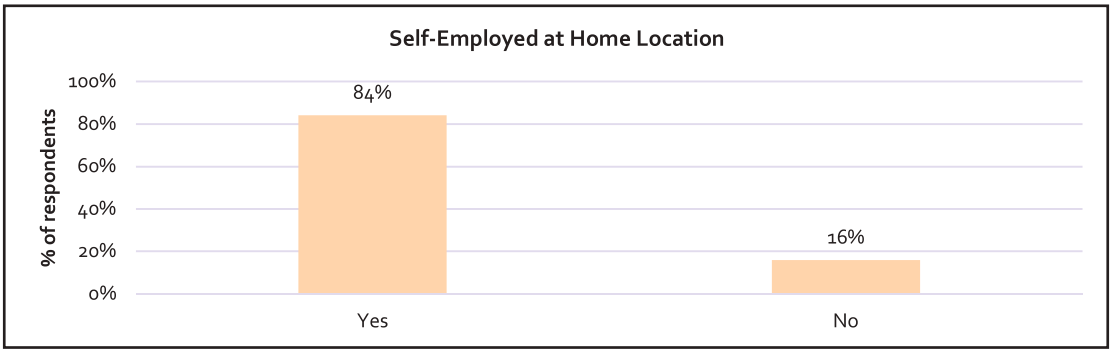

Figure 5. 16 Self-Employed at Home Location

D) Year of Self-Employment:

Table 5. 25 Year of Self-Employment

Self-employed – Year	Response Percent	Response Count
2017	6.96%	22
2018	19.62%	62
2019	38.92%	123
2020	34.49%	109
	Total	**316**

The above table illustrates the year in which the respondents started their businesses. It is clear from the analysis that around 38.92% have started their businesses in 2019 and about 34.49% in 2020.

E) Monthly Income of Self-Employed Respondents

On assessing the monthly income of 316 self-employed respondents, about 41.46% earn around INR 4,000 – INR 8,000 and 27.53% have their income range as INR 8,000 – INR 12,000. Only 0.63% (2 respondents) earns more than INR 40,000 monthly.

Table 5. 26 Monthly Income in self-employment

Monthly Income (INR) – Self Employment	Response Percent	Response Count
4000-8000	41.46%	131
8000-12000	27.53%	87
12000-16000	16.77%	53
16000-20000	5.38%	17
20000-25000	4.43%	14
25000-30000	2.22%	7
30000-40000	1.58%	5
40000 >	0.63%	2
	Total	316

5.8.8 Status of Unemployed Respondents Who are Looking for Job

The particular section details ITI Pass-out respondents' opinions on seeking a job, offered jobs by the institutes after their Pass-out, reasons for not accepting job offers, respondents opting for further studies, unemployed Pass-out students not aiming for any employment etc. The data analysis shall help correlate the relation between Students and the Institute's effort towards placing students.

Out of 3317 respondents who are unemployed but looking for job immediately after passing out of ITI, 336 belong to ITI Cuttack followed by 228 belong to ITI Balasore and 205 from ITI Hirakud.

A) ITI Pass-Out: Job Seekers

The study analyzed the information collected from the 3317 respondents who are unemployed but looking for a job immediately after completing their ITI course. The analysis indicates that more than half (51.58%) of the respondents have not applied for jobs. Around 19.48% of the respondents have applied for one job. The percentage of respondents who applied for two or more than two jobs is about 28.94%.

Table 5. 27 Number of jobs applied currently by not working category respondents

Number of jobs applied	Response Percent	Response Count
0	51.58%	1711
1	19.48%	646
2	14.20%	471
3	7.45%	247
4	3.80%	126
5	2.32%	77

6	0.87%	29
7	0.30%	10
	Total	3317

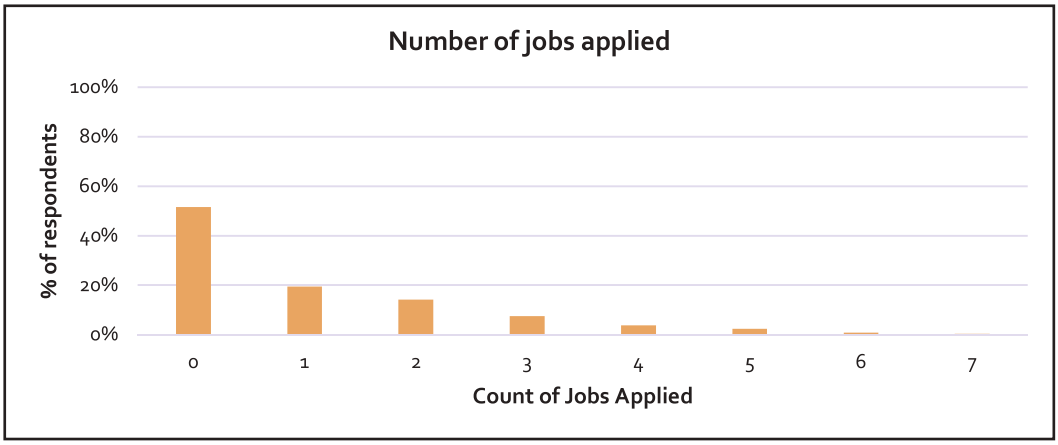

Figure 5. 17: Number of jobs applied currently by not working category respondents

B) Job Offered by Institutes Placement Cell

Upon querying whether any jobs were offered, it is observed that 92.25% of 3317 respondents were not offered any successful jobs. The rest 7.75% of the respondents have been offered successful jobs.

Table 5. 28 Successful Jobs Offered

Successful Job Offered	Response Percent	Response Count
Yes	7.75%	257
No	92.25%	3060
	Total	**3317**

Figure 5. 18: Successful Jobs Offered

C) Reason for Not Accepting Job Offers

The respondents who got successful job offers but refused to accept them were asked to choose the reasons among the multiple options provided. Of the 257 respondents, 38.52% didn't accept the offer because their expectation of the salary did not match with the offered salary scale, and 12.45% were seeking to secure a government job. 28.4% of the respondents have not accepted the offer because the workplace distance from their home was more.

Table 5. 29 Reasons for not accepting job offers

Reasons for not accepting the job offer	Response Percent	Response Count
Expected Salary was low	38.52%	99
Temporary job	14.79%	38
Jobs for untrained labour	2.33%	6
Far away from home	28.40%	73
Waiting for Govt. job	12.45%	32
Extended working hours	3.50%	9
	Total	257

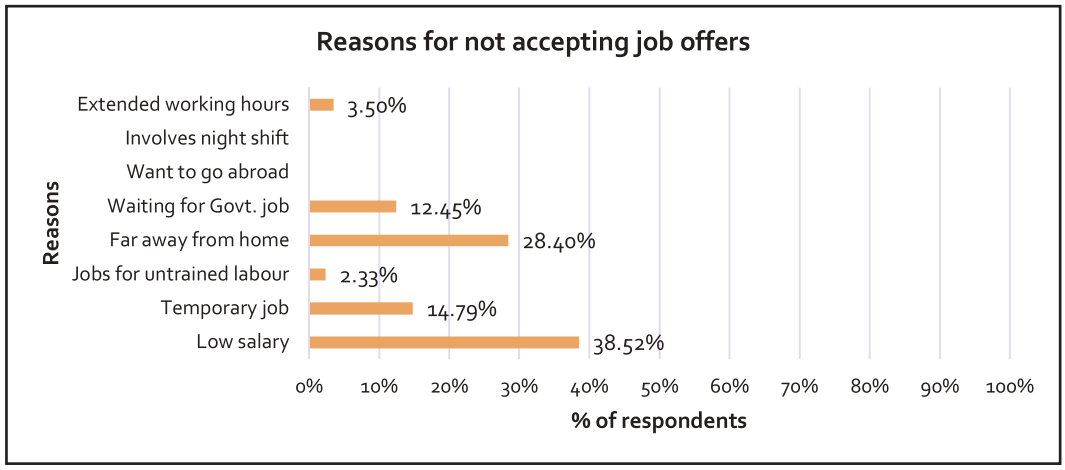

Figure 5. 19: Reasons for not accepting job offers

On analysing the reasons for not acceptig the job offer with respect to gender, out of 233 male respondents, about 36% of respondents did not accept the job offer as the expected salary was low, and 25.68% respondents stated that the job location is far away from home.

Out of 24 female respondents, about 2.33% of respondents did not accept the offer as the expected salary was low, and 2.72% stated that the job location is far away from home.

Table 5. 30 Gender vs Reasons for not accepting job offer

Reason for not accepting the job offer	Male Respondents %	Female Respondents %
Low salary	36.19%	2.33%
Temporary job	13.62%	1.17%
Jobs for untrained labour	1.56%	0.78%
Far away from home	25.68%	2.72%

Waiting for Govt. job	10.51%	1.95%
Extended working hours	3.11%	0.39%
Grand Total	90.66%	9.34%

D) Reasons for not able to secure a Job

The respondents were asked to choose the reasons for not getting a job from multiple options given. Analyzing the information collected from the 3317 respondents who are unemployed but looking for a job unveils various reasons for not securing a job. It is observed from the analysis that lack of demand of their trade of study forms be the significant reason for not getting a job as recorded by 24.90% of the respondents. It is also observed that employers demand work experience, which forms one of the primary reasons students are unable to secure a job, as recorded by 11.06% of the respondents. Another primary reason stands as waiting for a response. According to 33.80% of the respondents, companies do not communicate regarding the job offer and keep the respondents waiting.

Table 5. 31 Reasons for not getting a job

Reasons for not getting a job	Response Percent	Response Count
Not having the proper skill	10.16%	337
Not having skill in demand	5.00%	166
Demand for my trade is not available in my locality	24.90%	826
Employer prefers boys	0.54%	18
Employer prefers girls	0.69%	23
Poor communication skills	4.94%	164
Employers demand working experience	11.06%	367
Could Not answer properly in interviews	1.15%	38
Could Not demonstrate my skills	0.66%	22
Failed in written exam	7.08%	235
No communication was made from the company	33.80%	1121
	Total	**3317**

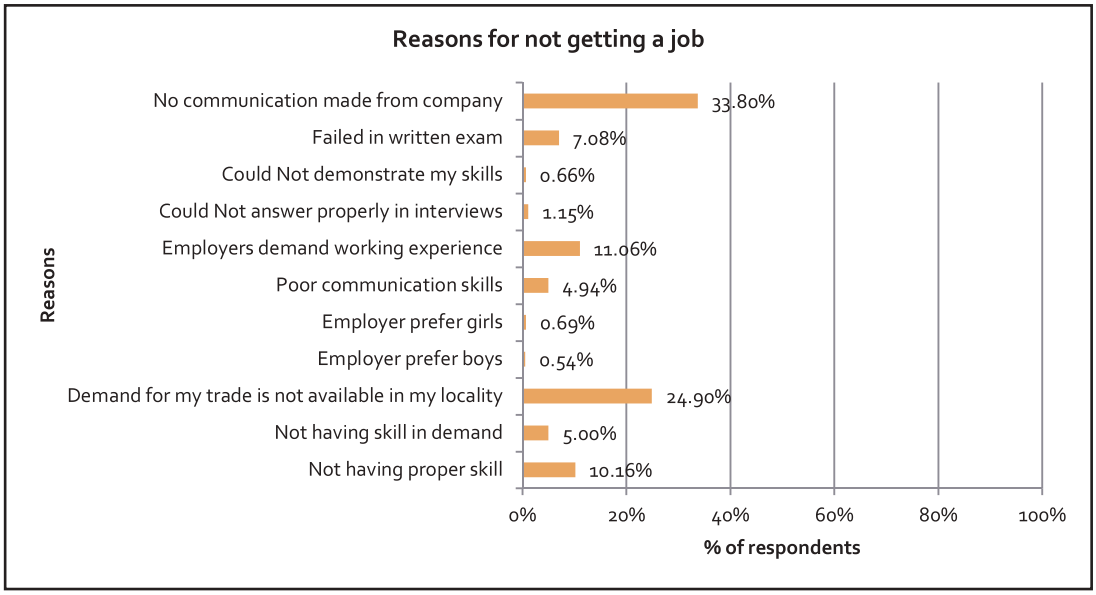

Figure 5. 20: Reasons for not getting a job

On analysing reasons for not able to secure a job with respect to gender, out of 2492 male respondents, 29.54% of respondents stated that there was no further information made from the company, and 21.47% of respondents mentioned that the demand for their trade was not available in their locality.

Out of 375 female respondents, 4.25% of respondents stated that the there was no further communication made from the company, and 3.44% stated that the demand for their trade was not available in their locality.

Table 5. 32 Reasons for not able to secure a job

Reasons for not able to secure job	Male respondents %	Female respondents %
Not having proper skill	9.53%	0.63%
Not having skill in demand	4.37%	0.63%
Demand for my trade is not available in my locality	21.47%	3.44%
Employer prefer boys	0.00%	0.54%
Employer prefer girls	0.69%	0.00%
Poor communication skills	4.61%	0.33%
Employers demand working experience	10.16%	0.90%
Could Not answer properly in interviews	0.99%	0.15%
Could Not demonstrate my skills	0.66%	0.00%
Failed in written exam	6.66%	0.42%
No communication made from company	29.54%	4.25%
Grand Total	**88.69%**	**11.31%**

5.8.9 Status of Unemployed Respondents but not looking for a job

Out of 1101 respondents who are unemployed and not looking for a job immediately after passing out of ITI, 83 respondents belong to ITI Sonepur 83 respondents belong to SIPT Pattamundai followed by 80 respondents from ITI Hinjilcutt.

A) Reasons for not looking for a job

The study captured information from 894 male students who are unemployed and not interested in job profiles anymore. The study focuses on understanding the primary reason for not taking up jobs after passing out the ITI. They were asked to choose the reasons from multiple options provided. Analysis of the information collected in this section reveals that 36.02% didn't pursue any job because of family issues. Similarly, 21.48% of the respondents are trying to seek apprenticeship. 4.36% of them have prepared for various entrance exams and government jobs.

On probing deeper into this context, it is found that 15% of the respondents have either lost or left their first job due to the COVID-19 pandemic.

Table 5. 33 Reasons for not looking for a job

Reasons for unemployed and not looking for a job	Response Percent	Response Count
No job related to my training is available	13.31%	119
Family Problem	37.81%	338
Preparing to go abroad	0.00%	0
Studying and not looking for a job	6.15%	55
Trying to get an apprenticeship	21.48%	192
Planning to start a business	2.46%	22
Preparing for Entrance Exam or Govt job	4.36%	39
Lost Job due to covid-19	9.73%	87
Left Job due to covid-19	5.37%	48
	Total	**894**

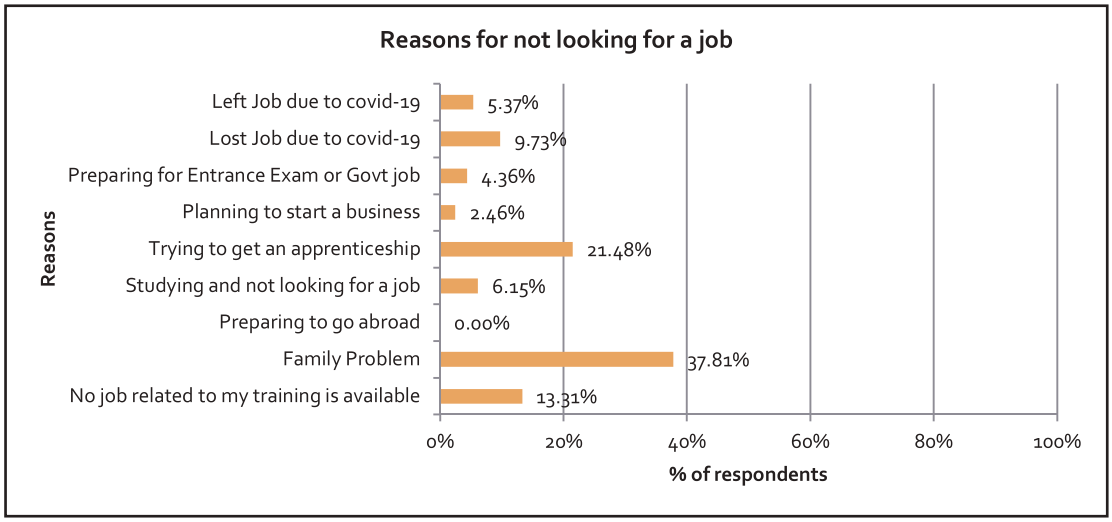

Figure 5. 21: Reasons for not looking for a job

B) Women-specific Reasons

The study also captures 207 female respondents who are unemployed and not interested in the job anymore. They were asked to choose the reasons from multiple options provided. Upon analysis of this information, it is observed that the primary reason behind not being interested in a job anymore for women respondents is that they had to get married, as reported by 24.64%. Another primary reason for the women respondents to not lookout for a job is familial problems, according to 22.71% of the respondents. 21.26% of the respondents mentioned that their family did not want them to pursue a job.

Table 5. 34 Women Specific Reasons

Women Specific Reasons	Response Percent	Response Count
The family didn't want me to do the job	21.26%	44
Got married	24.64%	51
The job was not available in nearby places	7.25%	15
I had to help my mother with housework	1.45%	3
No job related to my training is available	0.48%	1
Family Problem	22.71%	47
Studying and not looking for a job	2.42%	5
Trying to get an apprenticeship	3.86%	8
Planning to start a business	15.46%	32
Preparing for Entrance Exam or Government Job	0.48%	1
Lost Job due to covid-19	0.00%	0
Left job due to covid-19	0.00%	0
	Total	**207**

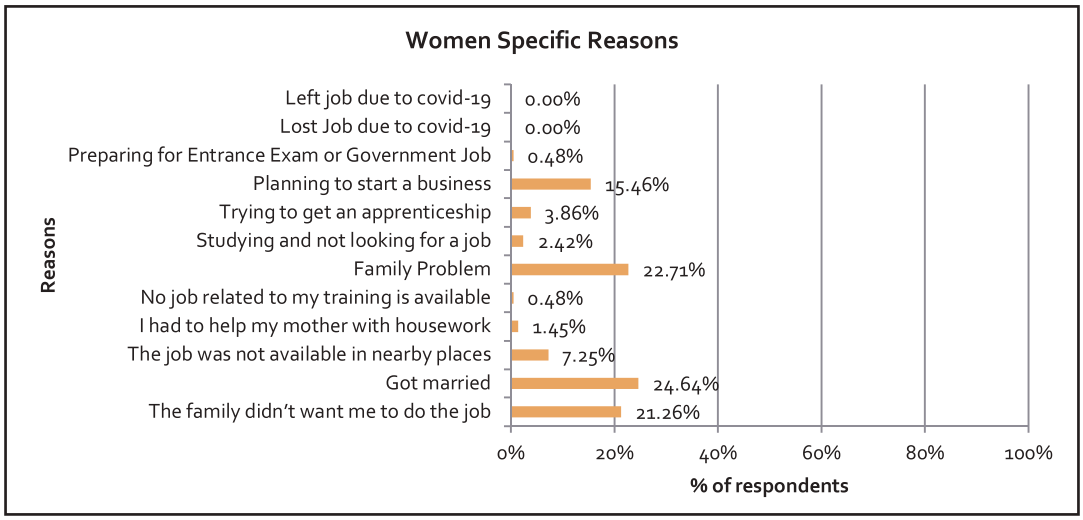

Figure 5. 22: Women-specific reasons

5.8.10 Pursuing Advanced or Further Studies

Out of 968 respondents who opted for advanced studies immediately after passing out of ITI, 125 respondents belong to ITI Cuttack followed by 90 respondents from ITI Berhampur and 60 respondents from ITI Puri.

A) Sector of Further Studies

The data analysis infers that out of the 968 respondents who have mentioned that they are pursuing higher studies after graduating from ITI, 58.57% are pursuing a Diploma, and 13.95% seek intermediate. About 10.95% pursue graduation, and 1.76% pursue post-graduation courses. About 13.53% opted for technical training, 0.93% for Engineering and 0.31% for other courses available.

Table 5. 35 Further Studies

Further Studies pursued by ITI Pass-Out	Response Percent	Response Count
Diploma	58.57%	567
10+2/+3	13.95%	135
Graduation	10.95%	106
Technical Training	13.53%	131
Engineering	0.93%	9
Post-Graduation	1.76%	17
Other Courses	0.31%	3
	Total	**968**

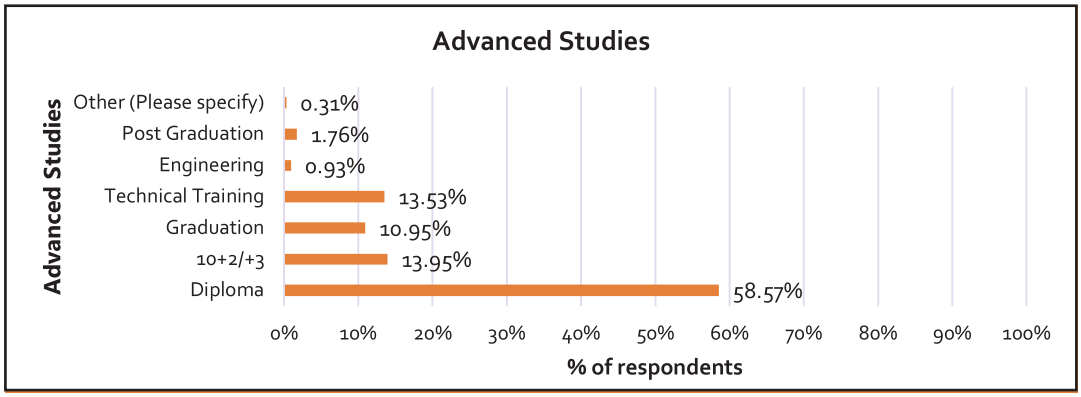

Figure 5. 23: Further Studies

B) Duration of Further Studies

Upon further probing, it may be inferred that the maximum course duration opted by the 968 respondents who are pursuing further studies is 2 years. About 54.75% have selected their course duration to be two years, and about 34.09% chose their course duration as three years. Moreover, it is observed that only 4.44% of the respondents have their course duration as less than 1 year.

Table 5. 36: Duration of current study

Duration of current study	Response Percent	Response Count
0-12 Months	4.44%	43
1 Year	6.71%	65
2 Years	54.75%	530
3 Years	34.09%	330
	Total	**968**

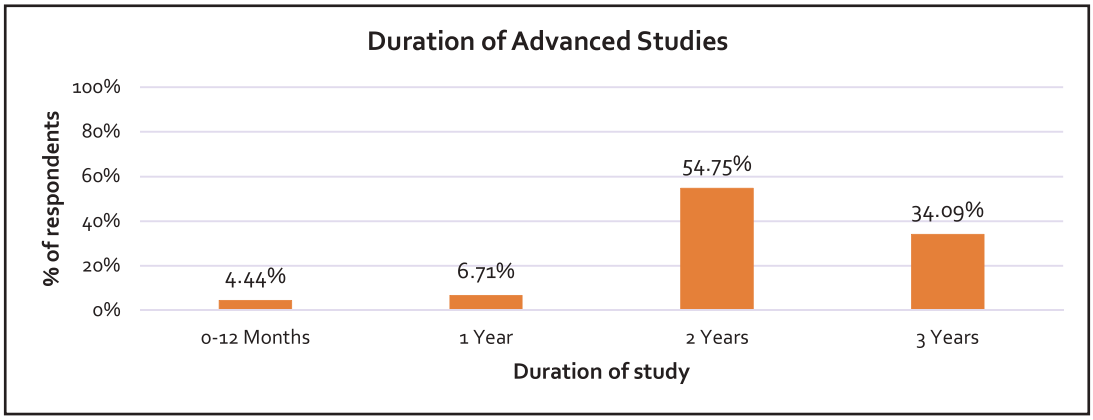

Figure 5. 24: Duration of the current study

C) Mode of Study

It is observed from the data analysis that 93.6% of the respondents are pursuing full-time courses. Only 3.2% of the respondents are pursuing part-time courses, and the remaining 3.2% are into distance education.

Table 5. 37: Mode of study

The current mode of study	Response Percent	Response Count
Part-time	3.20%	31
Full time	93.60%	906
Distance	3.20%	31
	Total	968

5.9 Current Employment Status of the Respondents

5.9.1 Current Employment Status

To understand the current employment status of the pass out students, the study collected data from 8090 respondents. The data analysis reveals that around 22.57% (1826 respondents) of the respondents are currently employed and among them about 1360 respondents are continuing their first job. Upon data analysis, it is observed that among 8090 respondents about 16.81% of the respondents are continuing their first job, and about 44.52% are not working but looking for employment. About 5.76% have secured paid

employment, out of which only 0.01% has secured permanent employment. The rest, 5.75%, have secured temporary employment. About 12.72% are unemployed and not looking for a job. About 4.54% of the respondents have joined apprenticeships, and 4.68% are self-employed. Of all the respondents, 10.96% are currently pursuing advanced/further studies.

Table 5. 38 Current employment status of the respondents

Current Employment Status	Response Percent	Response Count
Paid employment – Permanent	0.01%	1
Paid employment – Temporary	5.75%	465
Self-employment	4.68%	379
Apprenticeship	4.54%	367
Not working – Unemployed but looking for a job	44.52%	3602
Not working – Unemployed but not looking for a job	12.72%	1029
Advanced/ Further studies	10.96%	887
Continuing the first job	16.81%	1360
	Total	**8090**

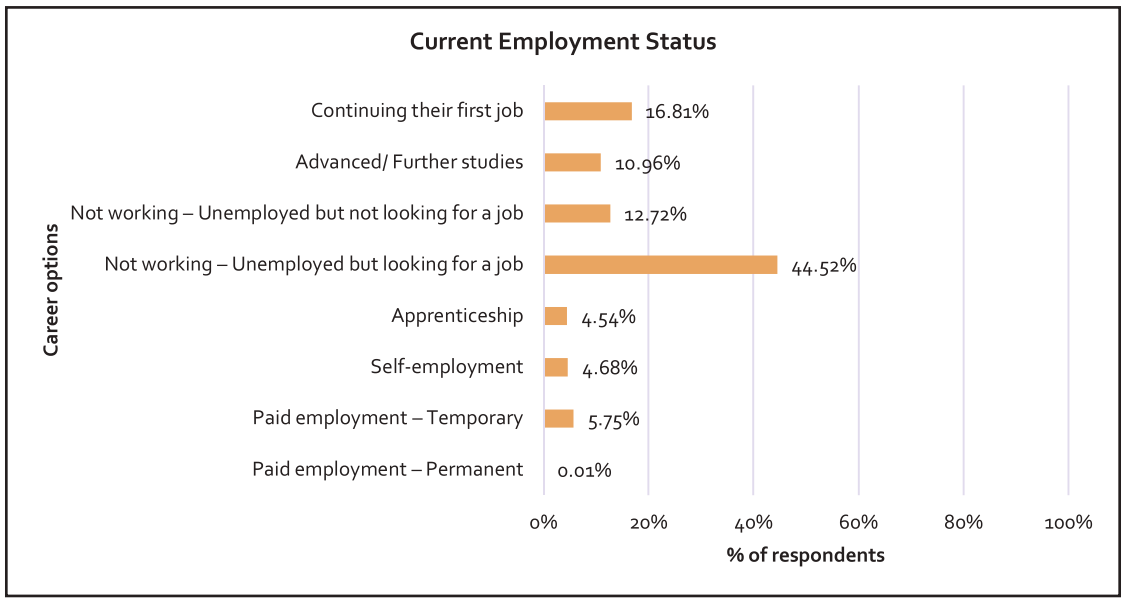

Figure 5. 25 Employment Status after ITI

Out of 1 respondent who has currently secured a permanent employment belong to ITI Sonepur. Out of 465 respondents who have currently secured a temporary employment, the maximum respondents of 72 belong to ITI Hirakud, followed by 51 respondents from ITI Cuttack and 32 respondents from ITI Chhatrapur, Ganjam. Out of 1360 respondents who are continuing their first job, maximum respondents of 207 belong to ITI Hinjlicutt, followed by 144 respondents from ITI Behrampur.

5.9.2 Employment Status with respect to Gender

Analysis of gender differences in the employment status indicates that out of the 872 female respondents, -47.7% are unemployed and still looking for a job, whereas 24.4% of respondents are unemployed. However, this 24.4% are not interested in the job anymore. About 12.2% are pursuing advanced studies, and 3.0% are self-employed. A significantly low percentage (8.8%) of female respondents has secured temporary employment. The analysis also shows that about 3.9% of the female respondents have secured an apprenticeship.

Table 5. 39 Current employment status with respect to gender

Gender	Advanced/ Further studies	Appren-ticeship	Not working – Unemployed but looking for a job	Not working – Unemployed but not look-ing for a job	Permanent	Temporary	Self-em-ployment
Female	12.2%	3.9%	47.7%	24.4%	0.0%	8.8%	3.0%
Male	10.8%	4.6%	44.1%	11.3%	0.3%	23.9%	4.9%

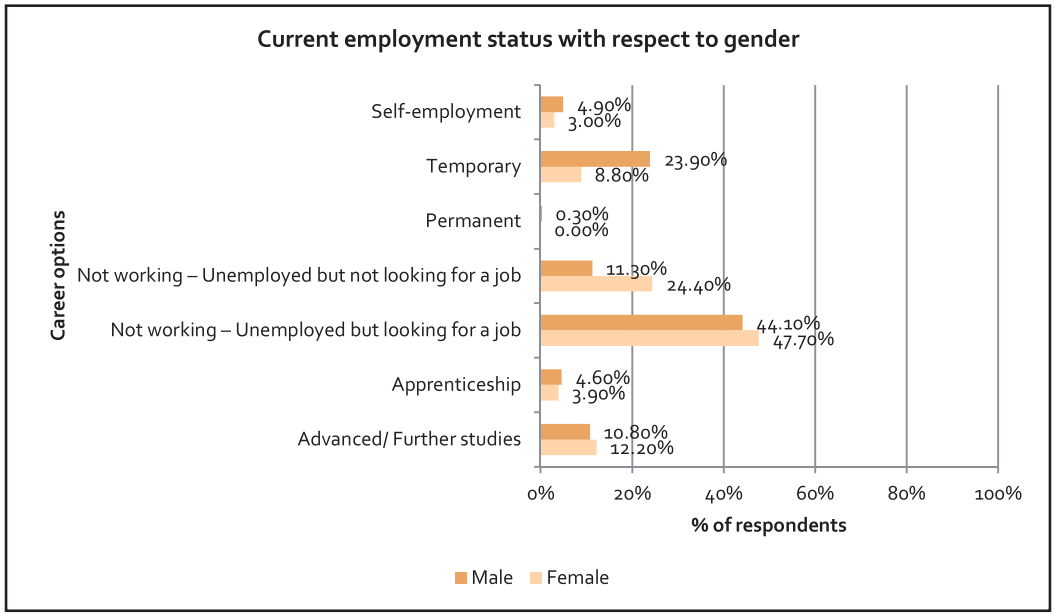

Figure 5. 26 Current employment status with respect to gender

On the other hand, the analysis reveals that out of the 7218 male respondents, about 44.1% are unemployed but looking for a job, and 11.3% are unemployed but not interested in any job. About 10.8% are pursuing advanced studies, whereas 4.9% are self-employed. An estimated 23.9% of the male respondents have secured a temporary job while a very low percentage of the respondents, i.e. 0.3%, is permanently employed in an industry. The analysis further reveals that around 4.6% have enrolled themselves in apprenticeships.

5.9.3 Employment status with respect to caste

The study has also pursued an analysis of the current employment status and the respondents' social groups in the study. It reveals that significantly fewer students have secured permanent jobs in all the castes. The percentage of unemployed but looking for a job is higher across all the social groups.

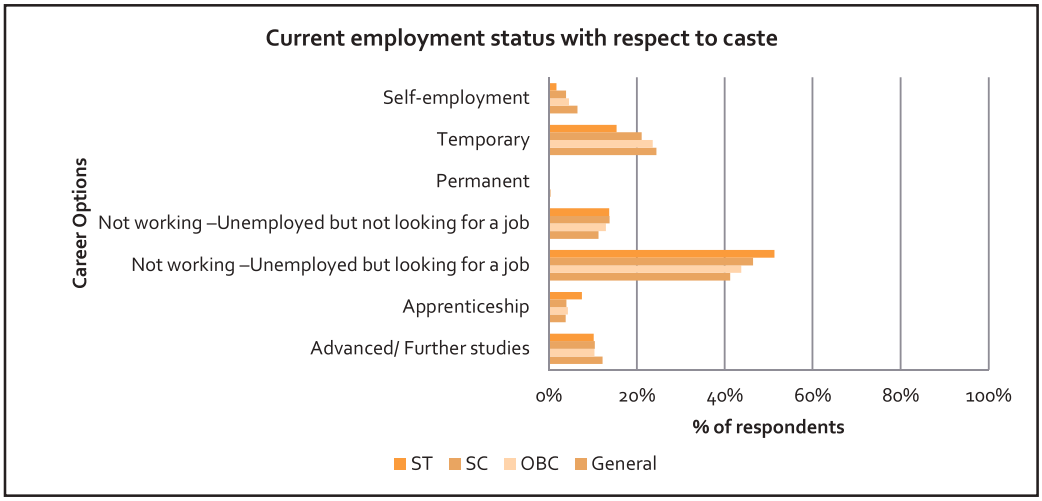

Figure 5. 27 Employment Status with respect to caste

5.9.4 Employment status with respect to family size

On analysing the family size with the students' employment status, it was observed that most of the students who have 1 or 2 siblings are currently not employed but are looking for a job.

Table 5. 40 Number of siblings vs Employment status

Number of Siblings	Advanced/ Further studies	Apprenticeship	Not working – Unemployed but looking for a job	Not working – Unemployed but not looking for a job	Paid employment – Permanent	Paid employment – Temporary	Self-employment	Grand Total
0	44	15	147	31	1	45	13	296
1	302	81	1047	271	4	492	92	2289
2	283	129	1200	390	6	655	146	2809
3	139	72	637	174	5	328	65	1420
4	62	35	330	91	6	158	37	719
5	37	22	149	40	0	88	16	352
6	10	7	63	21	0	27	5	133
7	5	3	17	8	0	9	4	46
8	4	2	10	1	0	0	1	18
9	1	1	2	2	0	2	0	8

5.9.5 Employment status with respect to parent's occupational background

On further analysis of the parent's occupational background with student's employment status, the majority of the students whose parents are farmers are currently unemployed and looking for a job, or are either currently working in a temporary job.

Table 5. 41 Respondent's Parent's Occupation vs Employment Status of respondent

Occupation	Advanced/ Further studies	Apprenticeship	Not working – Unemployed but looking for a job	Not working – Unemployed but not looking for a job	Paid employment – Permanent	Paid employment – Temporary	Self-employment	Grand Total
Farmer	421	188	2065	600	10	1052	181	4517
Job	167	52	455	128	4	248	37	1091
Other (Please specify) - Late	41	26	203	40	0	81	21	412
Self-employment/Entrepreneur/ Business	233	79	760	194	6	350	122	1744
Unemployed	25	22	119	67	2	73	18	326

5.9.6 Status of Respondents Who Are Employed

A) Securing Jobs in their trade of study

On querying the 1826 respondents who are employed regarding securing a job in their relevant trade studied at their respective ITI's, the response was captured as given in the below table.

Of the 22 respondents who are currently employed as permanent paid employees, 31.82% are working in the relevant trade and the rest 68.18% are working in sectors not related to their trade of study. Out of 1804 respondents working in temporary jobs, 57.32% of respondents are working relevant to their trade of study.

Table 5. 42 Relevance to Trade

Relevant to trade	Permanent	Temporary
Yes	31.82%	57.32%
No	68.18%	42.68%

B) Location of Employment

In the case of temporary paid employment, out of 1804 respondents, 47.34% are placed outside the state, and the remaining 52.66% are placed in the state. Among the permanent paid employees, 77.27% are employed in the state and the rest 22.73% are placed outside the state.

Table 5. 43 Place of Employment

Place of Employment	Permanent	Temporary
State	77.27%	52.66%
Outside the State	22.73%	47.34%

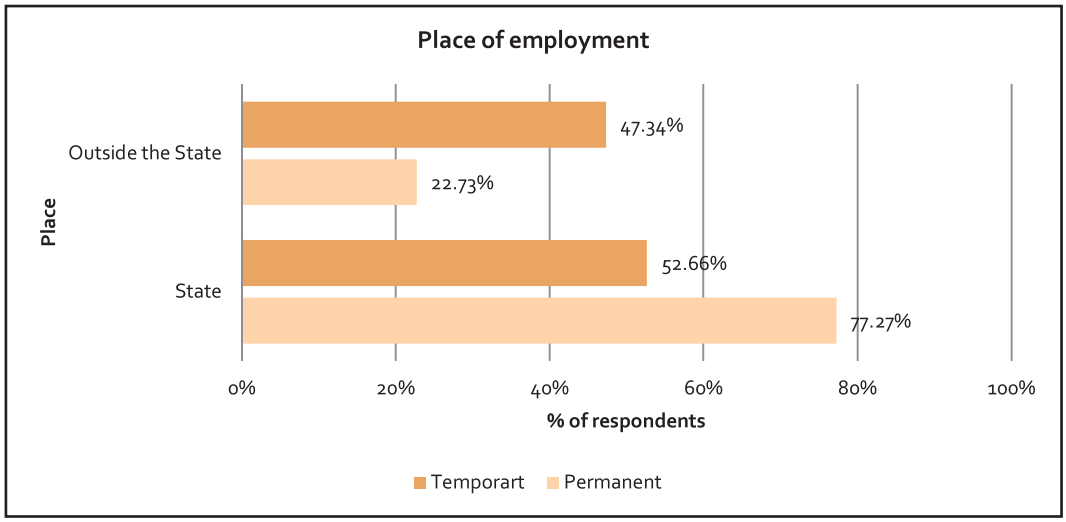

Figure 5. 28: Place of Employment

C) Sector/ Industries of Employment

The following table and graph represent the pass-outs' current employment sector, i.e. respondents placed in permanent, temporary, apprenticeship, Public or Private sector, Non-Governmental Organizations, etc.

Analysis of the below table indicates that of the 22 respondents who have secured permanent jobs, 40.91% are into public services and around 27.27% are into armed forces. The research also reveals that out of 1804 respondents who have secured temporary jobs, about 15.02% have secured employment in the mechanical engineering sector, 12.20% in the electrical engineering sector and about 9.98% in the automobile sector.

Table 5. 44 Industry of first job

Industry	Permanent	Temporary
Agriculture & other rural sector	0.00%	5.49%
Automobile	0.00%	9.98%
Commerce	0.00%	0.94%
Computer Operator	0.00%	0.22%
Construction	0.00%	6.71%

Delivery Agent	0.00%	1.16%
Defence/Armed Forces	27.27%	0.11%
E- Commerce	0.00%	1.61%
Education	0.00%	1.39%
Electrical Engineering	0.00%	12.20%
Electronics Technicians	0.00%	0.22%
Financial Service	0.00%	3.88%
Food/beverage Processing Industries	0.00%	2.16%
Forestry & Wood	0.00%	0.44%
Health Care Service/Pharmacy	0.00%	2.27%
Hotels, Tourism, Restaurants	0.00%	1.05%
ICT, Telecommunication	0.00%	2.61%
Mechanical Engineering	13.64%	15.02%
Media, Culture, Graphics	0.00%	0.28%
Metal or Chemical industries	4.55%	6.49%
Mining & Oil/gas	0.00%	1.61%
Other (Please specify)	0.00%	4.10%
Public Service	40.91%	1.55%
Security Forces	13.64%	0.61%
Shipping, Fisheries	0.00%	0.33%
Textile, Leather, Footwear	0.00%	3.88%
Transport	0.00%	0.83%
Transport equipment manufacturing & maintenance	0.00%	9.76%
Utilities (water, gas, electricity)	0.00%	3.10%

D) Year of Joining the Current Job

Data Analysis on the year of joining job reveals that around 63.64% of the respondents with permanent jobs have secured the job in 2019 and around 27.27% in 2020. About 9.09% have secured the job in 2018.

The data analysis reveals that 37.54% of the temporary paid employees joined in 2019 and 32.54% in 2020. About 13.69% of the temporary paid employees joined in 2021.

Table 5. 45 Year of Joining the job

Year of Joining	Permanent	Temporary
2017	0.00%	1.66%
2018	9.09%	14.19%
2019	63.64%	37.92%

2020	27.27%	32.54%
2021	0.00%	13.69%

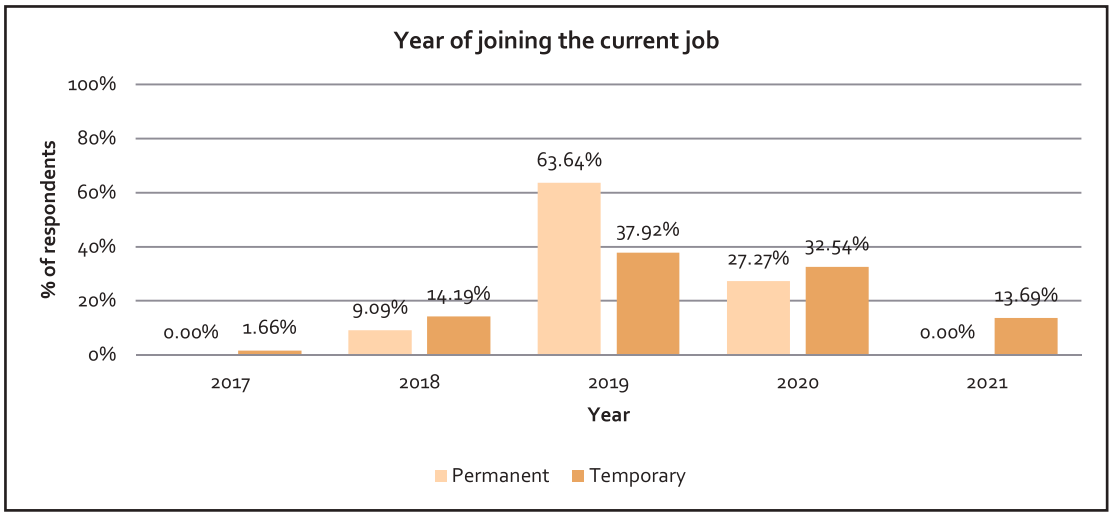

Figure 5. 29: Year of joining job after ITI

Table 5. 46 Year of Passout vs Year of Joining for permanently employed respondents

Year of Passout	Year of Joining					Total
	2017	2018	2019	2020	2021	
2017	0	1	4	1	0	6
2018	0	1	6	1	0	8
2019	0	0	4	4	0	8
2020	0	0	0	0	0	0

Analysis of the data reveals that among the 22 respondents who are currently employed in a permanent paid employment, 6 of them who passed out in 2018 have secured the job in 2019. One respondent who secured a permanent job passed out in 2017 and joined the job in 2020.

Table 5. 47 Year of Passout vs Year of Joining for temporarily employed respondents

Year of pass out	Year of joining					Total
	2017	2018	2019	2020	2021	
2017	30	155	95	30	43	353
2018	0	101	183	160	74	518
2019	0	0	406	341	116	863
2020	0	0	0	56	14	70

Analysis of the data reveals that out of 863 respondents who passed out of ITI in 2019, 116 respondents secured a temporary employed job in 2021, and 341 respondents secured a job in 2020. 406 respondents have secured a job in the same year as their pass out year, i.e., 2019.

Analysis of the data reveals that out of 518 respondents who passed out of ITI in 2018, 74 respondents secured a temporary employed job in 2021 and 160 respondents secured a job in 2020. Only 101 respondents have secured a position in the same year as their pass out, i.e., 2018.

F) Monthly Earnings by the Pass-Out Students in Their Current Job

On assessing the monthly income of different respondents (permanent and temporary) categories, 27.27% of the total respondents (i.e. 22 respondents) with permanent employment earn around INR 8,000- INR 12,000 monthly. Around 22.7.3% of the respondents earn about INR 12,000- INR 16,000 and about 22.73% earn around INR 16,000 – INR 20,000.

44.35% of total respondents (i.e. 1804 respondents) having temporary employment earn around INR 8,000- INR 12,000 monthly. A significantly less percentage (0.72%) of temporarily employed respondents earns in the bracket of INR 25,000- INR 30,000. About 0.06% of the temporarily employed respondents are earning more than INR 40,000.

Table 5. 48 Monthly Income of respondents (in INR)

Monthly Income (in INR)	Permanent	Temporary
4000-8000	4.55%	14.63%
8000-12000	27.27%	44.35%
12000-16000	22.73%	28.38%
16000-20000	22.73%	8.92%
20000-25000	13.64%	2.83%
25000-30000	9.09%	0.72%
30000-40000	0.00%	0.11%
>40000	0.00%	0.06%

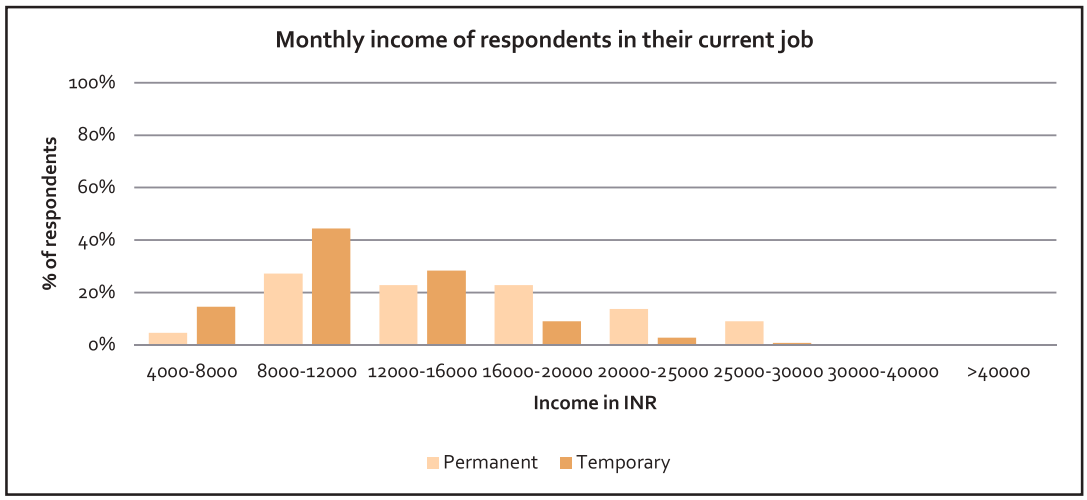

Figure 5. 30: Monthly Income of respondents

G) Methodology Adopted to Learn About Employment

The below table depicts the most popular method adopted by the respondents to get the job is through job portals. About 63.47% of the respondents with temporary employment have adopted the method of

securing jobs through contacts, and around 18.74% of the respondents with temporary employment have secured the position through ITI.

Table 5. 49 Method adopted for securing a job

Method adopted for job	Permanent	Temporary
Through contacts	18.18%	63.47%
Through newspaper add	0.00%	1.72%
Directly approached	4.55%	8.70%
Through ITI	0.00%	18.74%
Through job portals	77.27%	5.54%
HR Consultancy	0.00%	0.50%
Referral from the previous employer	0.00%	1.33%

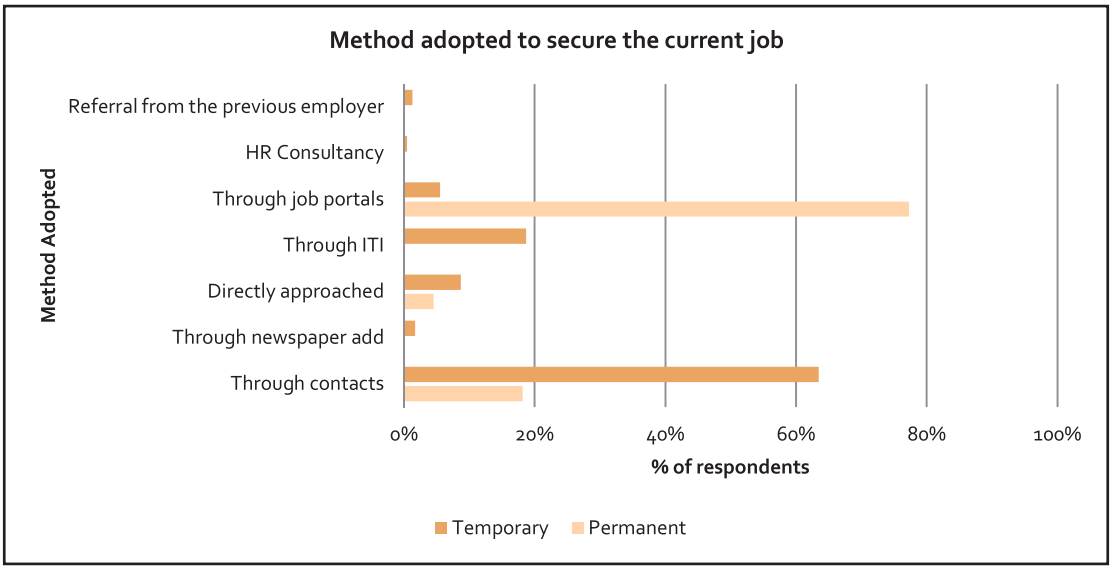

Figure 5. 31: Method adopted for securing a job

5.9.7 Status of Self-Employed Respondents

Out of 379 currently self-employed respondents, maximum of 47 respondents belong to ITI Cuttack, followed by 40 respondents from ITI Puri, and 37 respondents from ITI Sonepur.

A) Sector of Self-Employment

Further analysis indicates that out of the 379 self-employed respondents, about 20.58% have started their own business in the electrical and electronics sector. The analysis can inducted that this sector is the most preferred sector for self-employment.

Table 5. 50 Type of Self-Employment

Type of Self-Employment	Response Percent	Response Count
Agro Machinery-Repairs & Sales	1.06%	17

Automobile-Repairs/Garage	6.86%	7
Automobiles parts-Sales	3.17%	56
Barber Shop/Saloon	0.53%	13
Boutique	0.26%	2
Carpentry services	1.32%	10
Confectionary/Sweet Shop	1.06%	6
Construction/ Real estate	1.85%	3
Cyber Cafe/ Internet Cafe	2.11%	2
Electrical & Electronics	20.58%	6
Electrical Fitting & Wiring	8.18%	0
Fabrication-Services	2.64%	0
Farming	4.75%	7
Financial Services	2.64%	2
Flowers-Trading	0.79%	9
Garments-Mfg.	1.06%	1
Grocery/Vegetable/Meat Shop	7.65%	5
Hardware Shop	2.90%	26
Hotels & Restaurants	2.11%	1
Jewellery-sales	1.06%	4
Marriage Hall decorations	0.79%	1
Medical Shop	0.00%	7
Mobiles-Sales and Services	2.90%	2
Other (Please specify)	1.06%	1
Painting Services	1.06%	12
Photo studio	1.06%	5
Pipe Fittings-Sales & services	3.43%	2
Provisions Store/Warehouse/ Stock Yards	3.17%	6
Rewinding Shop	1.32%	8
Tailoring & embroidery	2.64%	8
Transport Services	6.86%	0
Tutor	3.17%	2
	Total	379

B) Ownership of Business

The data analysis reveals that out of 379 self-employed respondents, about 47.23% are into the family business, and the remaining 52.77% have ventured into a new business setup.

Table 5. 51 Ownership of business when Self-Employed

Ownership of business	Response Percent	Response Count
Family Business	47.23%	179
New Business	52.77%	200
	Total	379

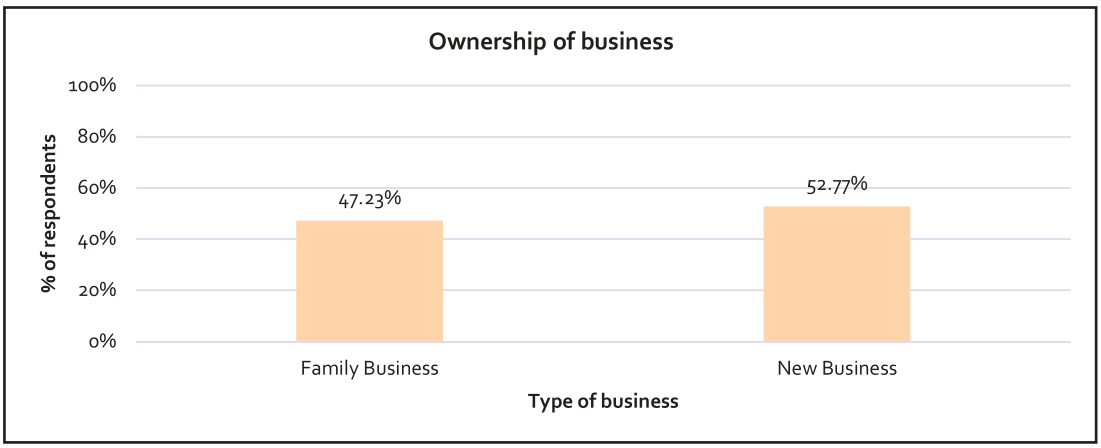

Figure 5. 32: Ownership of business when Self-Employed

C) Location of Self-Employment

On further probing about the work location for the self-employed respondents, 84.17% of them affirmed (379 respondents) having set up their home as a workplace.

Table 5. 52 Self-Emploted at Home Location

Self-employed at Home Location	Response Percent	Response Count
Yes	84.17%	319
No	15.83%	60
	Total	379

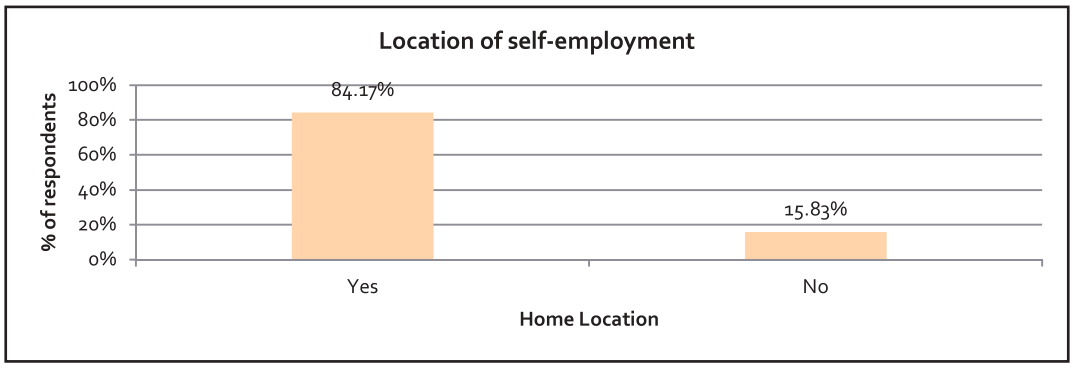

Figure 5. 33: Self-Employed at Home Location

D) Year of Self-Employment:

Table 5. 53: Year of Self-employment

Self-employed – Year	Response Percent	Response Count
2017	5.28%	20
2018	16.09%	61
2019	33.51%	127
2020	36.15%	137
2021	8.97%	34
	Total	379

The above table illustrates the year in which the respondents started their businesses. It is clear from the analysis that around 33.51% have started their businesses in 2019 and about 36.15% in 2020.

Table 5. 54 Year of Passout vs Self-Employment Start year

Year of pass out	Year of joining					Total
	2017	2018	2019	2020	2021	
2017	12	31	31	28	8	110
2018	3	24	40	24	7	98
2019	5	5	56	80	18	164
2020	0	1	0	5	1	7

Analysis of the data reveals that out of 164 respondents who passed out of ITI in 2019, 80 respondents started their own business in 2020 and 18 respondents in 2021. About 56 respondents started their own business in the same year as their pass out, i.e., 2019.

Analysis of the data reveals that out of 110 respondents who passed out of ITI in 2017, 31 respondents started their own business in 2018, and 28 respondents in 2020. About 12 respondents started their own business in the same year as their pass out, i.e., 2017.

E) Monthly Income of Self-Employed Respondents

On assessing the monthly income of the total 379 self-employed respondents, about 37.73% of them earn around INR 4,000 – INR 8,000 and 33.51% have their income range as INR 8,000 – INR 12,000. Only 0.53% (2 respondents) earn more than INR 40,000 monthly.

Table 5. 55 Monthly Income in Self-Employment

Monthly Income (INR) – Self Employment	Response Percent	Response Count
4000-8000	37.73%	143
8000-12000	33.51%	127
12000-16000	15.57%	59
16000-20000	5.54%	21
20000-25000	3.69%	14
25000-30000	2.37%	9
30000-40000	1.06%	4
40000 >	0.53%	2
	Total	**379**

5.9.8 Status of Unemployed Respondents Who are Looking for Job

The particular section details ITI Pass-out respondents' opinions on seeking a job, offered jobs by the Institutes after their Pass-out, Reason for not accepting Job Offers, Respondents opting for further studies, Unemployed Pass-out not seeking for any kind of employment etc. The data analysis shall help correlate the relation between Students and the Institute's effort towards placing students.

Out of 3602 respondents who are currently unemployed but looking for a job, a maximum of 324 respondents belong to ITI Cuttack, followed by 271 respondents from ITI Hirakud and 231 respondents from ITI Balasore.

A) ITI Pass-Out: Job Seekers

The study analyzed the information collected from the 3602 respondents who are currently unemployed but looking for a job. The analysis indicates that more than half (53.44%) of the respondents have not applied for jobs. Around 20.54% of the respondents have applied for one job. The percentage of respondents who applied for two or more than two jobs is about 26.01%.

Table 5. 56 Number of jobs applied currently by not working category respondents

Number of jobs applied currently	Response Percent	Response Count
0	53.44%	1925
1	20.54%	740
2	13.88%	500
3	6.72%	242
4	2.58%	93
5	1.89%	68
6	0.67%	24
7	0.28%	10
	Total	**3602**

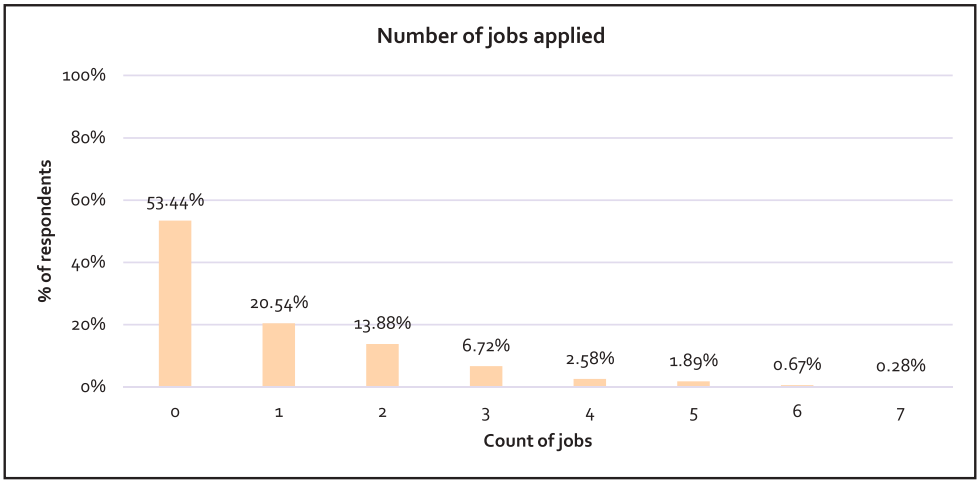

Figure 5. 34: Number of jobs applied currently by not working category respondents

B) Job Offered by Institutes Placement Cell

Upon querying whether any jobs were offered, it is observed that 93.84% of 3602 respondents were not offered any successful jobs. The rest, 6.16% of the respondents, were offered successful jobs.

Table 5. 57: Successful Jobs Offered

Successful Job Offered	Response Percent	Response Count
Yes	6.16%	222
No	93.84%	3380
	Total	**3602**

Figure 5. 35: Successful Jobs Offered

C) Reason for Not Accepting Job Offers

The respondents were asked to choose the reasons for not accepting the jobs offers from multiple options. Of the 222 respondents who got successful job offers, 41.89% didn't accept the offer because of the low salary, and 13.51% because the nature of the job offered was temporary. 30.63% of the respondents have not received the offer because the workplace distance from their home was more.

Table 5. 58 Reasons for not accepting job offers

Reasons for not accepting the job offer	Response Percent	Response Count
Low salary	41.89%	93
Temporary job	13.51%	30
Jobs for untrained labour	1.80%	4
Far away from home	30.63%	68
Waiting for Govt. job	8.56%	19
Extended working hours	3.60%	8
	Total	222

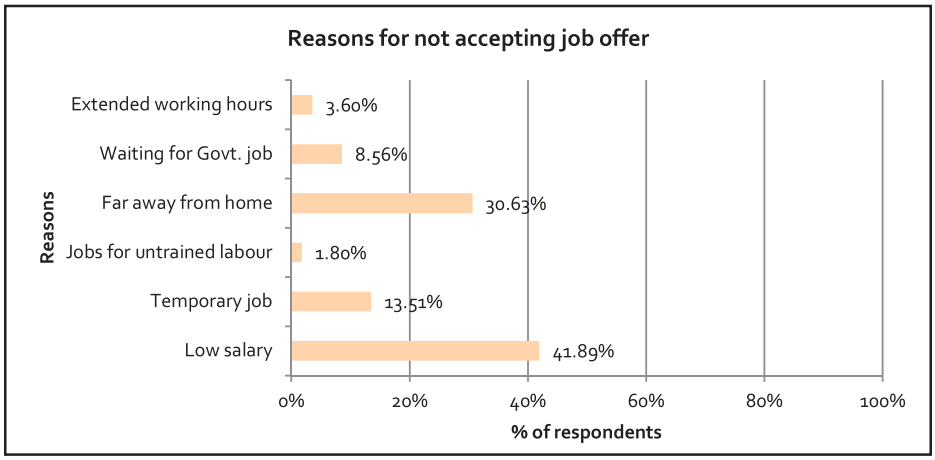

Figure 5. 36: Reasons for not accepting job offers

Table 5. 59 Gender vs Reasons for not accepting the job offer

Reason for not accepting the job offer	Male respondents %	Female respondents %
Low salary	39.19%	2.70%
Temporary job	10.81%	2.70%
Jobs for untrained labour	1.35%	0.45%
Far away from home	27.03%	3.60%
Waiting for Govt. job	6.76%	1.80%
Extended working hours	3.15%	0.45%
Grand Total	**88.29%**	**11.71%**

On analysing the reasons for not accepting the job offer of currently employed respondents with respect to gender, out of 196 male respondents 39.19% of respondents mentioned that the expected salary was low, and 27.03% had a concern that the job location was far away from home.

Out of 26 female respondents, 3.6% of respondents stated that the job location was far away from home, and 2.7% of respondents mentioned that they expected a higher salary and did not want a temporary job.

D) Reasons for not able to secure a Job

Analyzing the information collected from the 3602 respondents currently unemployed but looking for a job unveils various reasons for not securing a job. The respondents were asked to choose from the multiple options provided. It is observed that employers demand work experience, which forms the primary basis behind students being unable to secure a job, as recorded by 38% of the respondents. Another primary reason stands as waiting for a response. According to 27% of the respondents, companies do not communicate regarding the job offer and keep the respondents waiting.

COVID 19 is also a reason for not getting the job, according to 10% of the respondents. Improper skills are another reason, as recorded by 10% of the respondents.

Table 5. 60 Reasons for not getting a job

Reasons for not getting a job	Response Percent	Response Count
Not having the proper skill	9.33%	336
Not having skill in demand	3.53%	127
Demand for my trade is not available in my locality	11.10%	400
Employer prefers boys	0.50%	18
Employer prefer girls	0.42%	15
Poor communication skills	5.86%	211
Employers demand working experience	28.01%	1009
Left Job due to covid-19	7.25%	261
Could Not answer properly in interviews	1.11%	40
Could Not demonstrate my skills	0.44%	16
Failed in written exam	3.53%	127
No communication was made from the company	28.93%	1042
	Total	**3602**

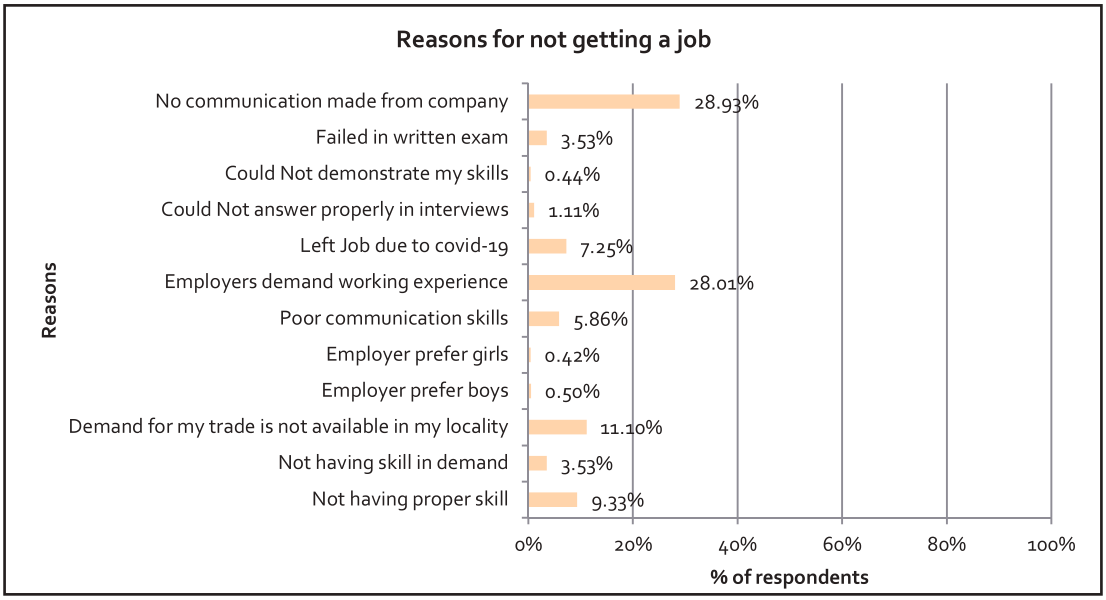

Figure 5. 37: Reasons for not getting a job

Table 5. 61 Gender vs Reasons for not able to secure a job

Reasons for not able to secure job	Male respondents %	Female respondents %
Not having proper skill	8.69%	0.64%
Not having skill in demand	3.19%	0.33%
Demand for my trade is not available in my locality	9.66%	1.44%
Employer prefer boys	0.00%	0.50%
Employer prefer girls	0.42%	0.00%
Poor communication skills	5.50%	0.36%
Employers demand working experience	24.68%	3.33%
Left Job due to covid-19	6.33%	0.92%
Could Not answer properly in interviews	1.03%	0.08%
Could Not demonstrate my skills	0.44%	0.00%
Failed in written exam	3.30%	0.22%
No communication made from company	25.21%	3.72%
Grand Total	**88.45%**	**11.55%**

On analysing the reasons for not able to secure a job of currently employed students with respect to gender, out of 3186 male respondents 25.21% of respondents mentioned that there was no further communication made from the company and 24.68% of respondents stated that the employers demand for working experience.

Out of 416 female respondents, 3.72% of respondents mentioned that there was no further communication made from the company and 3.33% of respondents stated that the employers demand for working experience.

5.9.9 Status of Unemployed Respondents but not looking for a job

Out of 1029 respondents who are currently unemployed and are not looking for a job, a maximum of 86 respondents belong to ITI Sonepur, followed by 82 respondents from SIPT Pattamundai, and 78 respondents from ITI Hinjlicutt.

A) Reasons for not looking for a job

The study captured information from 816 male unemployed students and not interested in job profiles anymore. The study focuses on understanding the primary reason for not taking up jobs after passing out the ITI. They were asked to choose the reasons from the multiple options provided. Analysis of the information collected in this section reveals that 40.20% didn't pursue any job because of familial issues. Similarly, 11.15% of the respondents have plans of starting their businesses. 5.27% of them have prepared for various entrance exams and government jobs.

On probing deeper into this context, it is found that 16.91% of the respondents have either lost or left their current job due to the COVID-19 pandemic.

Table 5. 62 Reasons for not looking for a job

Reasons for unemployed and not looking for a job	Response Percent	Response Count
No job related to my training is available	12.13%	99
Family Problem	40.20%	328
Preparing to go abroad	0.00%	0
Studying and not looking for a job	3.19%	26
Trying to get an apprenticeship	11.40%	93
Planning to start a business	11.15%	91
Preparing for Entrance Exam or Govt job	5.27%	43
Lost Job due to covid-19	10.17%	83
Left Job due to covid-19	6.74%	55
	Total	**816**

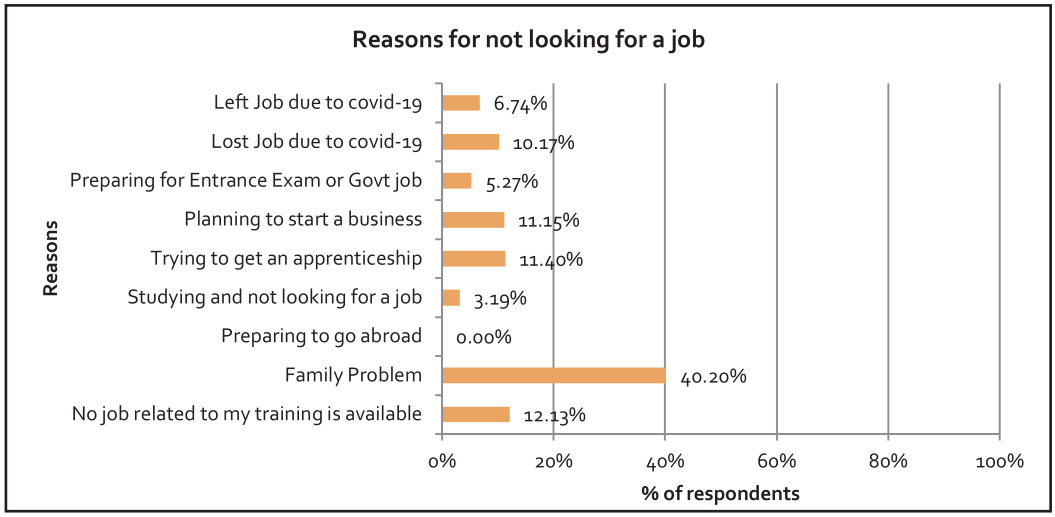

Figure 5. 38: Reasons for not looking for a job

B) Women-specific Reasons

The study also captures 213 women respondents who are unemployed and not interested in the job anymore. They were asked to choose from multiple options the various reasons for not looking for a job. Upon analysis of this information, it is observed that the primary reason behind not being interested in a job anymore for women respondents is that they had to get married, as reported by 26.76%. Another primary reason for the women respondents to not lookout for a job is familial problems, according to 22.07% of the respondents. 29.11% of the respondents mentioned that their family did not want them to pursue a job.

Table 5. 63 Women Specific Reasons

Women Specific Reasons	Response Percent	Response Count
No job related to my training is available	1.41%	3
Family Problem	22.07%	47
Preparing to go abroad	0.00%	0
Studying and Not looking for job	3.29%	7
Trying to get apprenticeship	6.57%	14
Planning to start business	0.94%	2
Preparing for Entrance Exam or Govt job	0.00%	0
Lost Job due to covid-19	0.47%	1
Left Job due to covid-19	0.47%	1
Family didn't want me to do job	29.11%	62
Got married	26.76%	57
Job was not available in nearby places	7.98%	17
Had to help my mother in house work	0.94%	2
	Total	213

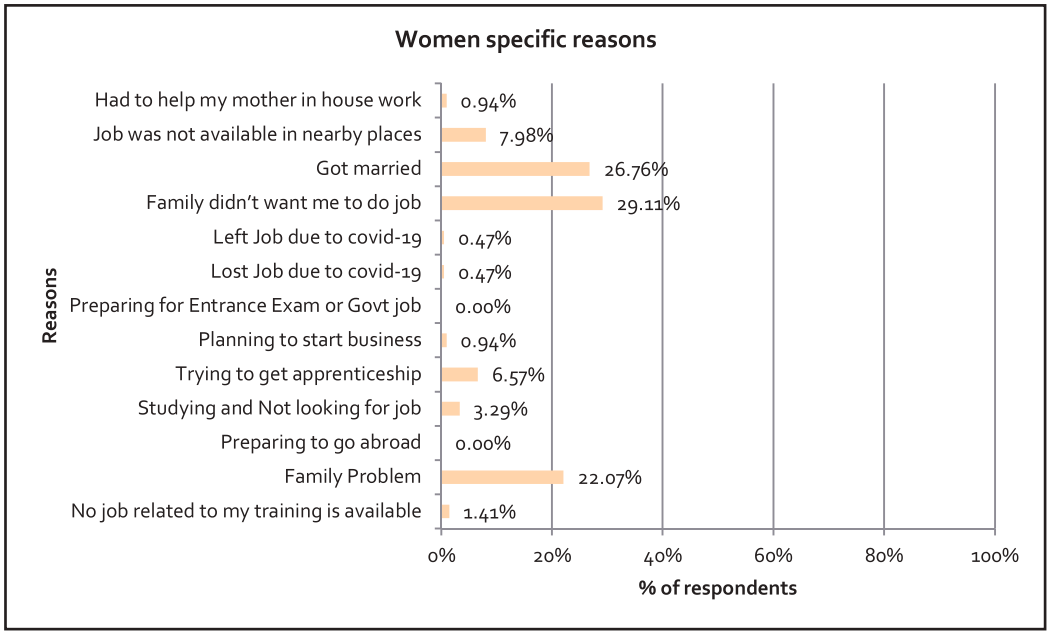

Figure 5. 39: Women-specific reasons

5.9.10 Pursuing Advanced or Further Studies

Out of 887 respodents who are currently pursuing advanced or further studies, a majority of 125 respondents belong to ITI Cuttack, and 78 of respondents are from ITI Behrampur and 59 of respondents are from ITI Hirakud.

A) Sector of Further Studies

The data analysis infers that out of the 887 respondents who have mentioned that they are pursuing higher studies after passing out from ITI, 63.13% are pursuing a Diploma, 12.51% are pursuing intermediate. About 14.09% are pursuing graduation, and 1.47% is pursuing post-graduation courses. Around 7.55% are pursuing technical training and 1.24% are into engineering.

Table 5. 64 Further Studies

Further Studies pursued by ITI Pass-Out	Response Percent	Response Count
Diploma	63.13%	560
10+2/+3	12.51%	111
Graduation	14.09%	125
Technical Training	7.55%	67
Engineering	1.24%	11
Post-Graduation	1.47%	13
	Total	887

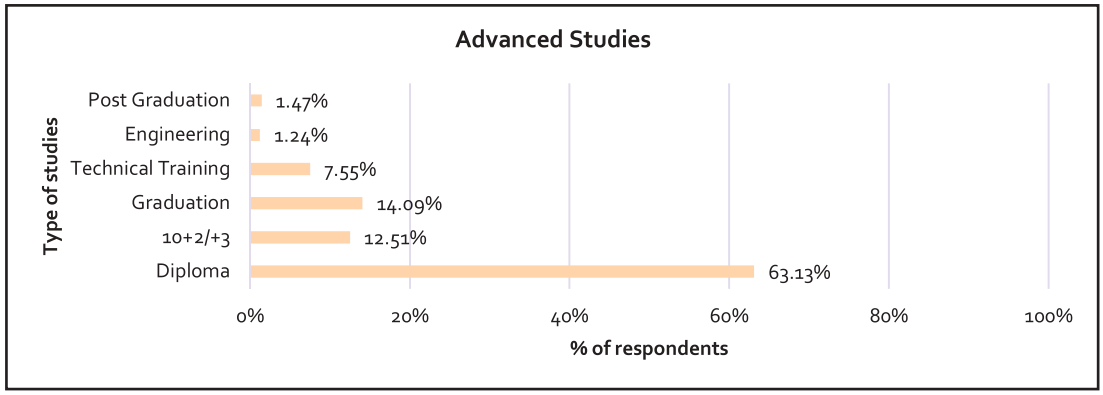

Figure 5. 40: Further Studies

B) Duration of Further Studies

Upon further probing, it may be inferred that the maximum course duration opted by the 887 respondents who are pursuing further studies is two years. About 53.10% have selected their course duration to be two years, and about 41.38% chose their course duration as three years. Moreover, it is observed that about 3.72% respondents have their course duration as 1 year and only 1.8% of the respondents have their course duration as less than 1 year.

Table 5. 65 Duration of current study

Duration of current study	Response Percent	Response Count
0-12 Months	1.80%	16
1 Year	3.72%	33
2 Years	53.10%	471
3 Years	41.38%	367
	Total	887

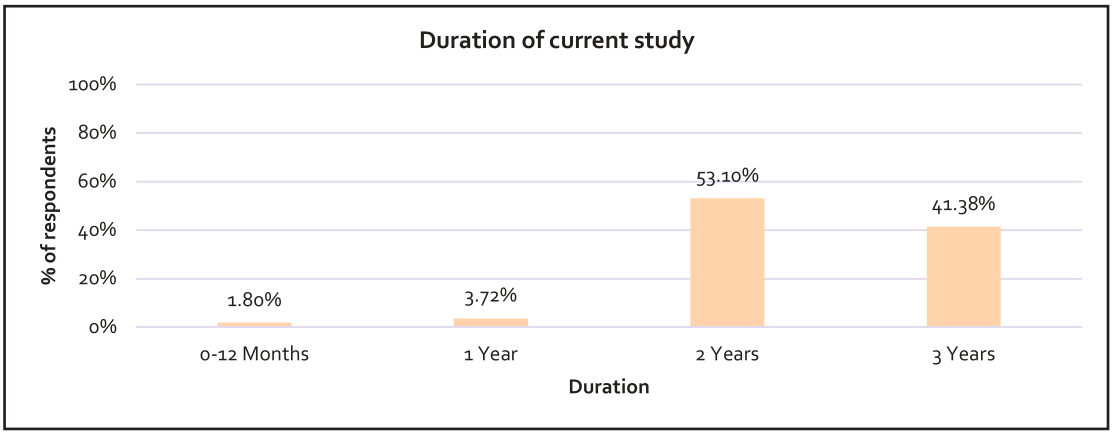

Figure 5. 41: Duration of the current study

C) Mode of Study

It is observed from the data analysis that 98.7% of the respondents are pursuing full-time courses. Only 0.86% of the respondents are pursuing part-time courses, and the remaining 0.43% are into distance education.

Table 5. 66 Current mode of study

The current mode of study	Response Percent	Response Count
Part time	0.90%	8
Full time	98.80%	870
Distance	1.01%	9
	Total	**887**

5.10 On The Job Training

On the job training is a hands-on method of teaching the skills, knowledge, and competencies needed for employees to perform a specific job within the workplace. Upon analysing the data collected from the 8090 respondents, it was identified that about 94.92% of them did not receive any on-the-job training in their workplace. In contrast, the remaining 5.08% of them have received on-the-job training.

Table 5. 67 On the Job Training

On the job training	Response Percent	Response Count
Yes	5.08%	411
No	94.92%	7679
	Total	**8090**

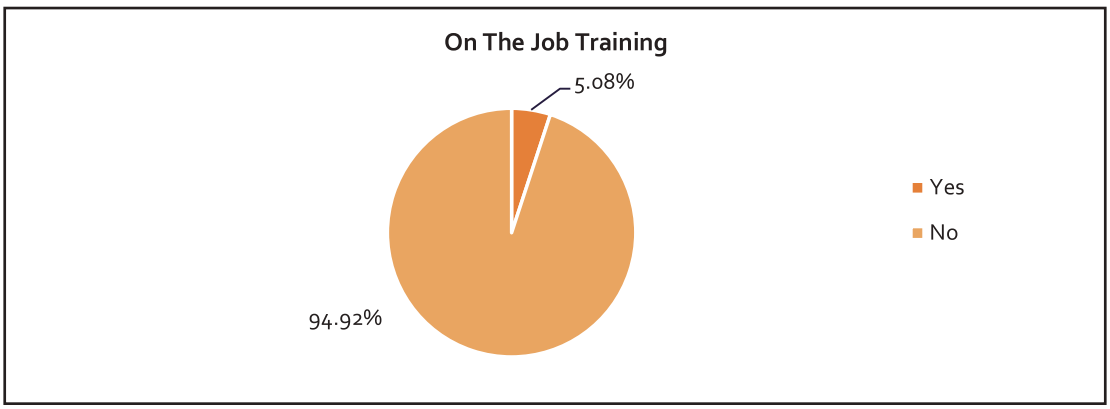

Figure 5. 42: On The Job Training

Upon further probing, it was observed that the On-The-Job training for about 83.45% of the respondents is around 1-5 days. For 14.11% of the respondents, the duration is approximately 6-10 days, as mentioned below.

Table 5. 68 Duration of On the Job Training

Duration of On-The-Job Training	Response Percent	Response Count
1-5 days	83.45%	343
6-10 days	14.11%	58
11-15 days	2.43%	10
	Total	**411**

5.11 Apprenticeship Training

5.11.1 Apprenticeship – Immediately After Completion of ITI Course

The 8,090 pass-outs interviewed for the study; it was found that 10.00% had joined apprenticeship training immediately after passing out the ITI course. The coverage of apprenticeship training was more amongst the males (91.01%) than females (8.99 %).

Out of the respondent's majority of them are OBC (32.39%), followed by general (30.42%), ST (19.09%), and SC (18.10%) category. Most of the apprenticeship was undertaken in either public or private sector companies. The stipend given to the trainees during an apprenticeship was below INR 4000 for about 3.94% of the respondents, between INR 4000- INR 8000 for 74.01% of the respondents and between INR 8000-INR 12000 for approximately 21.31% of the respondents. Only 0.74% of the respondents earn above INR 12000 as a stipend in the apprenticeship.

Further probing into the duration of the apprenticeship program revealed that about 7.88% of the respondents have the duration of apprenticeship as six months, 86.8% have the duration as 12 months, and about 6.03% of respondents have the duration as 24 months.

Out of 812 respondents who have pursued apprenticeship immediately after ITI, it was found that 197 respondents are from ITI Hirakud, 79 respondents are from ITI Rourkela, 64 respondents from ITI Cuttack.

A) Year of Joining of Apprenticeship

About 10% (812 respondents) of the total respondents (8090) have taken up apprenticeship immediately after passing out of ITI. About 48% joined the apprenticeship program in 2020, and approximately 34.85% joined in 2019. 3.33% of the respondents joined the apprenticeship program in 2017.

Table 5. 69 Year of joining of Apprenticeship

Year of joining of apprenticeship	Response Percent	Response Count
2017	3.33%	27
2018	13.79%	112
2019	34.85%	283

2020	48.03%	390
	Total	**812**

B) Monthly Income of Respondents in Apprenticeship

On analysis of the stipend received by Apprenticeship students, 74.01% of respondents engaged in apprenticeship immediately after completing the ITI course earned around INR 4,000- INR 8,000 monthly. Only about 0.74% of respondents made more than INR 12,000 a month.

Table 5. 70 Monthly Stipend of Apprenticeship

Monthly Stipend during the apprenticeship	Response Percent	Response Count
< 4000	3.94%	32
4000-8000	74.01%	601
8000-12000	21.31%	173
12000 >	0.74%	6
	Total	**812**

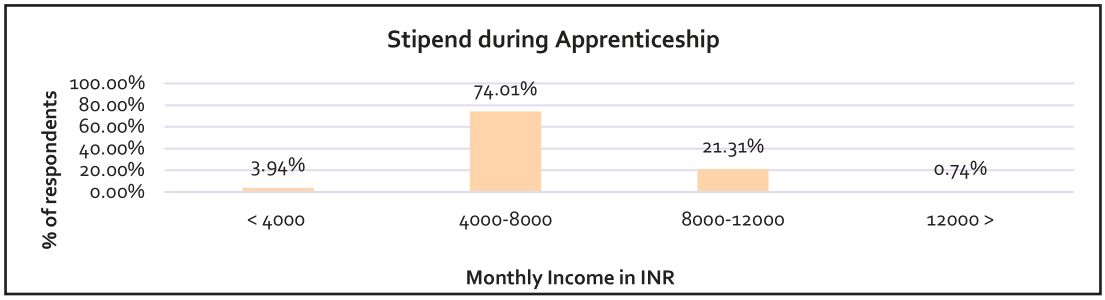

Figure 5. 43: Monthly Stipend of Apprenticeship

Of the 812 respondents who have secured an apprenticeship, 531 respondents have completed the apprenticeship program. Among those who have completed the apprenticeship, 290 of them are unemployed and are looking for a job, 143 of them have secured temporary employment.

5.11.2 Apprenticeship – Current Scenario

The study also revealed that around 4.54% of the respondents are currently doing an apprenticeship. The coverage of apprenticeship training currently was observed to be more amongst males (90.74%) than females (9.26 %). Out of the respondents, the majority of them are OBC (34.46%), followed by general (26.01%), ST (22.30%) and SC (17.23%) category.

Out of 367 respondents who have pursued apprenticeship immediately after ITI, it was found that 58 respondents are from ITI Hirakud, 42 respondents are from Gopabandhu ITI Ambaguda, Koraput, 34 respondents from ITI Cuttack.

A) Year of Joining of Apprenticeship

About 4.54% (367 respondents) of the total respondents (8090) have taken up an apprenticeship. Approximately 58.86% joined the apprenticeship program in 2020, and about 36.51% joined in 2021. About 4.63% of the respondents joined the apprenticeship program in 2019.

Table 5. 71 Year of Joining of Apprenticeship

Year of joining of apprenticeship	Response Percent	Response Count
2017	0.00%	0
2018	0.00%	0
2019	4.63%	17
2020	58.86%	216
2021	36.51%	134
	Total	**367**

B) Monthly Income of Respondents in Apprenticeship

On analysis of the stipend received by Apprenticeship students, 79.29% of 367 respondents currently engaged in apprenticeship earn around INR 4,000- INR 8,000 monthly. Only about 1.36% of respondents make more than INR 12,000 a month.

Table 5. 72 Monthly Stipend of Apprenticeship

Monthly Stipend during the apprenticeship	Response Percent	Response Count
< 4000	1.36%	5
4000-8000	79.29%	291
8000-12000	17.98%	66
12000 >	1.36%	5
	Total	**367**

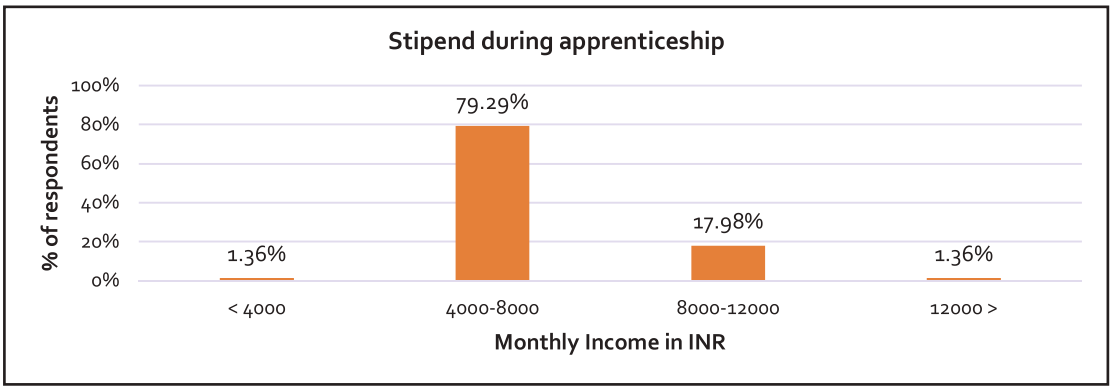

Figure 5. 44: Monthly Stipend of Apprenticeship

5.12 Respondents Opinion About Training Counselling & Placement Cell

The respondents' perceptions about the availability of Training Counselling and Placement Cell (TCPC) and their services are detailed below. TCPC plays a vital role in the labour market consequences. It prepares students with various talents that they wish to be placed in areas like personality development, organizing interviews, preparing interns for competitive tests, making it easier for them to write their own CVs, etc. Also, it helps in finding professional prospects for the students. The respondents' perceptions on the availability of TCPC and their services are detailed below.

A) Job Fairs/ Campus Placements Conducted at the ITI Campuses

Data Analysis reveals that for 49.49% of the respondents, the campus placements have been conducted in the ITI's & for 50.51% of respondents, the campus placements have not been conducted in their respective ITI's.

Table 5. 73 Job Fairs conducted on Campus

Job fairs in Campus	Response Percent	Response Count
Yes	49.49%	4004
No	50.51%	4086
	Total	**8090**

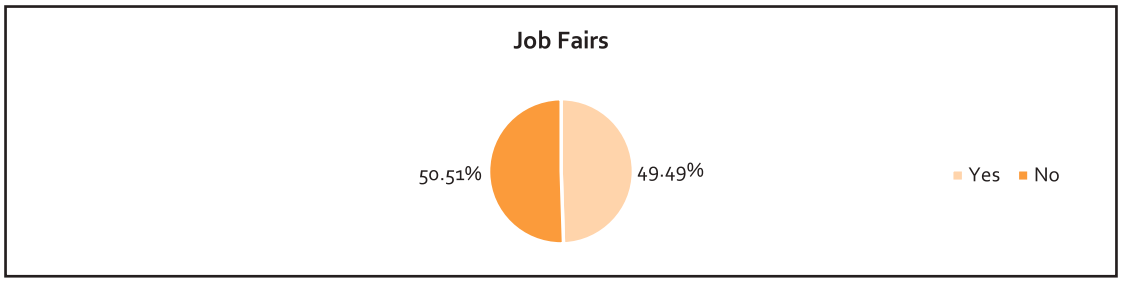

Figure 5. 45: Job fairs conducted on the campus

B) Attending Job Fair/ Campuses at the Institute

Almost 48.13% of the students have attended the campus placements at their respective ITI's & the rest, 51.87%, never participated in the campus placements.

Table 5. 74 Attending job fairs at the campus

Attended job fairs	Response Percent	Response Count
Yes	48.13%	1927
No	51.87%	2077
	Total	4004

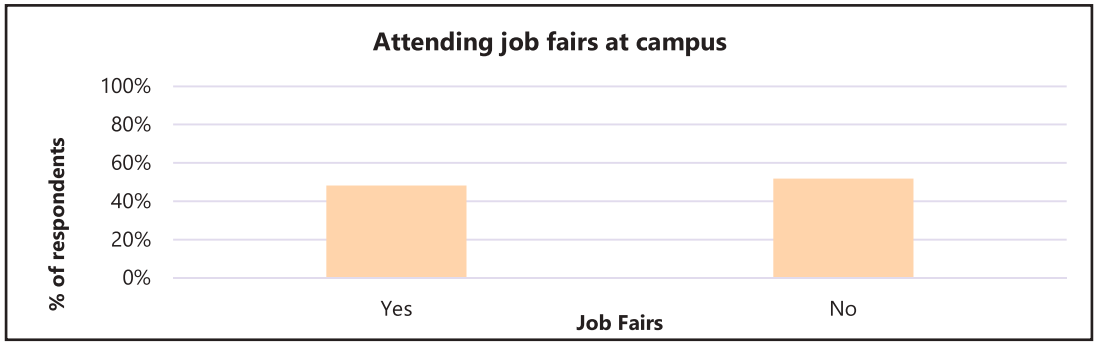

Figure 5. 46 Attending job fairs at the campus

C) Reasons for not attending Campus Interviews

The respondents were asked to choose from multiple options, the reasons for not attending campus interviews. Upon further probing in this context, the primary reason behind not attending the campus placements is the respondent unable to make himself available for the selection process, as recorded by 52.53% of the respondents. The following major reason was the company not being good according to 16.71% of the respondents.

Table 5. 75 Reasons for not attending job fairs at the campus

Reason for not attending	Response Percent	Response Count
I was not available	52.53%	1091
Companies were not good	16.71%	347
No clarity on posting and salary	2.02%	42
Salary was low	3.56%	74
I didn't want to relocate	3.85%	80
Age Issue	4.62%	96
Health Issue	4.72%	98
Below academic criteria/ Back paper/ Percentage Shortage	11.94%	248
	Total	**2076**

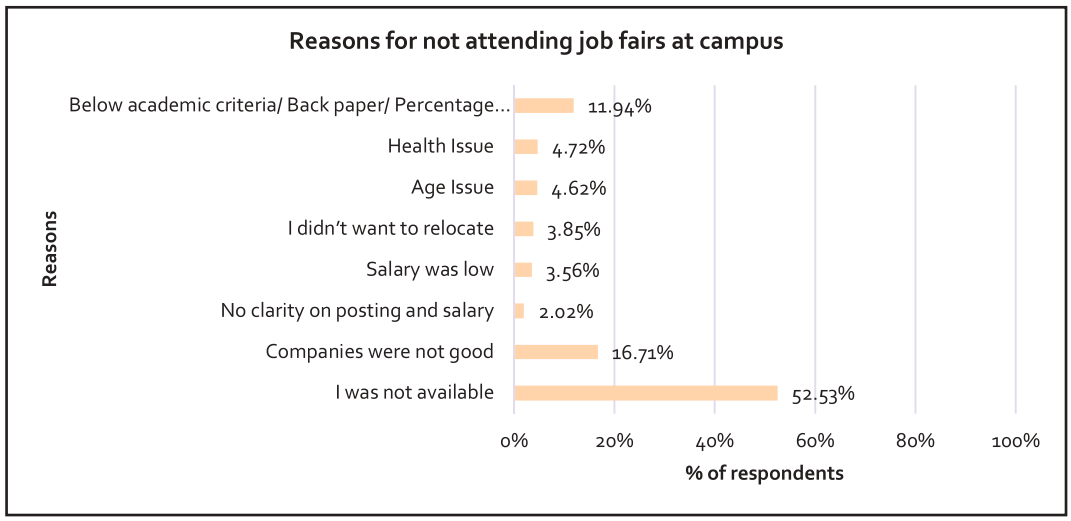

Figure 5. 47 Reasons for not attending job fairs at the campus

D) Selected/ Offered Jobs at the Campus Interviews

The analysis indicates that 75.82% of the students received a job offer through the campus placements, whereas 48.13% of students attended the interview process& the other 24.18% got rejected in the interview process.

Table 5. 76 Selection at job fairs

Selection	Response Percent	Response Count
Yes	75.82%	1461
No	24.18%	466
	Total	**1927**

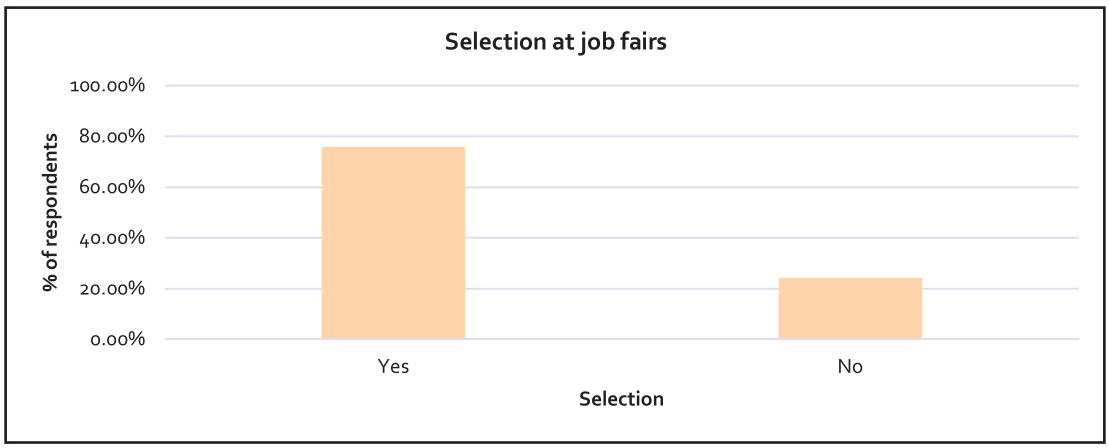

Figure 5. 48: Selection at job fairs

E) Reasons for not getting selected at the Campus Interviews

The respondents who were not selected in the campus interviews were asked to choose the reasons for not getting selected from multiple options give. From the data analysis it is deduced that 65.02% of them were unable to state the reason for not getting selected & 13.73% of the students were not selected as their pass out certificate was not available at the time of the interview process. Moreover, 13.09% of the students rejected the offer.

Table 5. 77: Reasons for not getting selected

Reason for not getting Selected	Response Percent	Response Count
Don't know	65.02%	303
Pass out certificate was not available	13.73%	64
My communication was not good	8.15%	38
I rejected the offer	13.09%	61
	Total	466

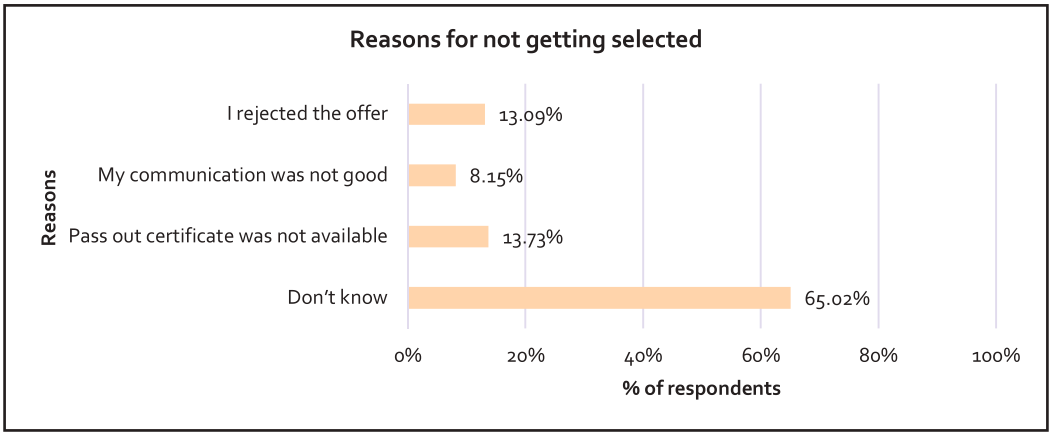

Figure 5. 49: Reasons for not getting selected

F) Acceptance/ Rejection of Job Offers at the Campus Placements

From 1461 respondents selected in the campus placements, 69.06% of them accepted the offer, and the rest, 30.94%, rejected the offer.

Table 5. 78: Acceptance of offer

Acceptance of offer	Response Percent	Response Count
Yes	69.06%	1009
No	30.94%	452
	Total	1461

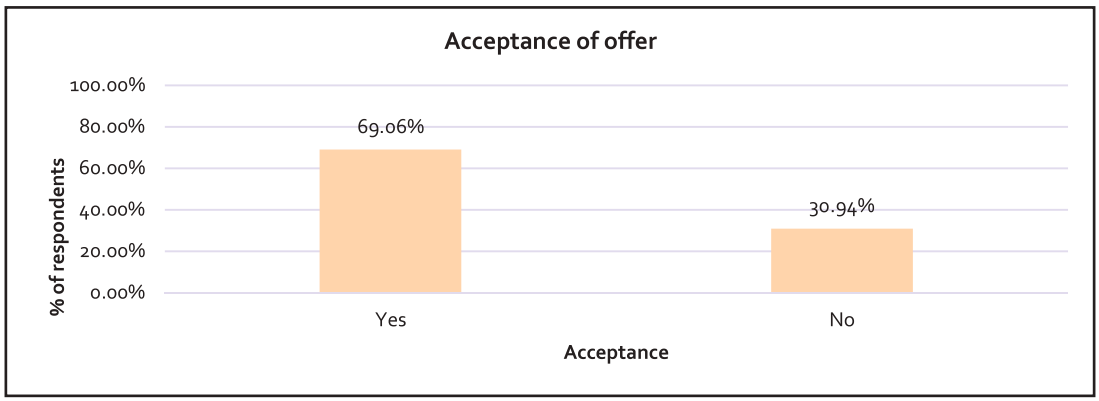

Figure 5. 50: Acceptance of offer

Upon further probing, the primary reason for not accepting the offer is that the jobs being offered were out of the respondent's hometown, as recorded by 35.40% of the respondents. 28.98% of the respondents have rejected as the salary offered was low & 1.77% of the students stated that ITI didn't inform them about the offer.

Table 5. 79: Reasons for not accepting the job offer

Reason for not accepting the offer	Response Percent	Response Count
Job Not related to ITI Education	1.77%	8

I got another job with a higher salary	4.65%	21
The salary offered was low	28.98%	131
Outside my home town	35.40%	160
Family/Personal Problems	13.05%	59
Lost interest in ITI related jobs	0.66%	3
Inadequate career opportunities	1.11%	5
Job offered required over time	0.44%	2
I did not have a mark sheet	2.65%	12
Job offered was trainee position	0.88%	4
ITI did Not inform me about the offer	1.77%	8
No communication was made from the company	8.41%	38
	Total	**451**

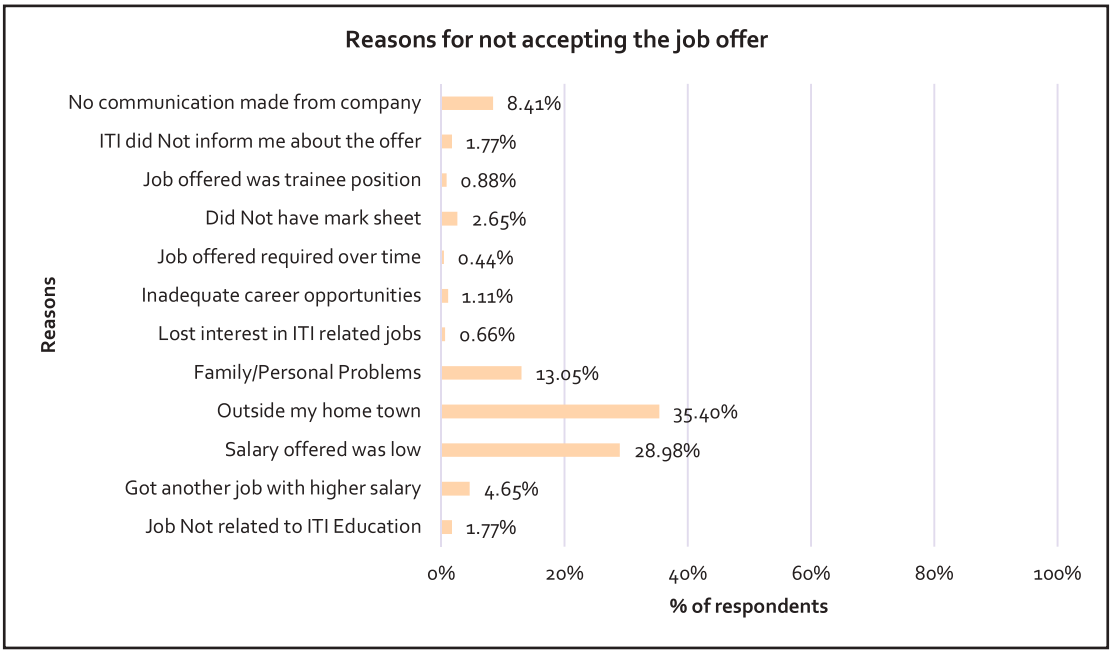

Figure 5. 51: Reasons for not accepting the job offer

5.13 Overall Opinion On ITI Institute

To better understand the respondents' opinion on the quality of training received at the ITI Institutes, the respondents were requested to rate the same on five scales, namely excellent, very good, good, poor, and very poor.

Upon analysis of the data received, it has been observed that (50%) of the respondents have rated the training obtained in the ITI to be good. 34.03% of the respondents have expressed that the quality of training received in the ITI is very good.

Table 5. 80: Opinion about ITI

Opinion about ITI	Response Percent	Response Count
Very Poor	0.59%	48
Poor	1.90%	154
Good	49.41%	3997
Very Good	34.03%	2753
Excellent	14.07%	1138
	Total	8090

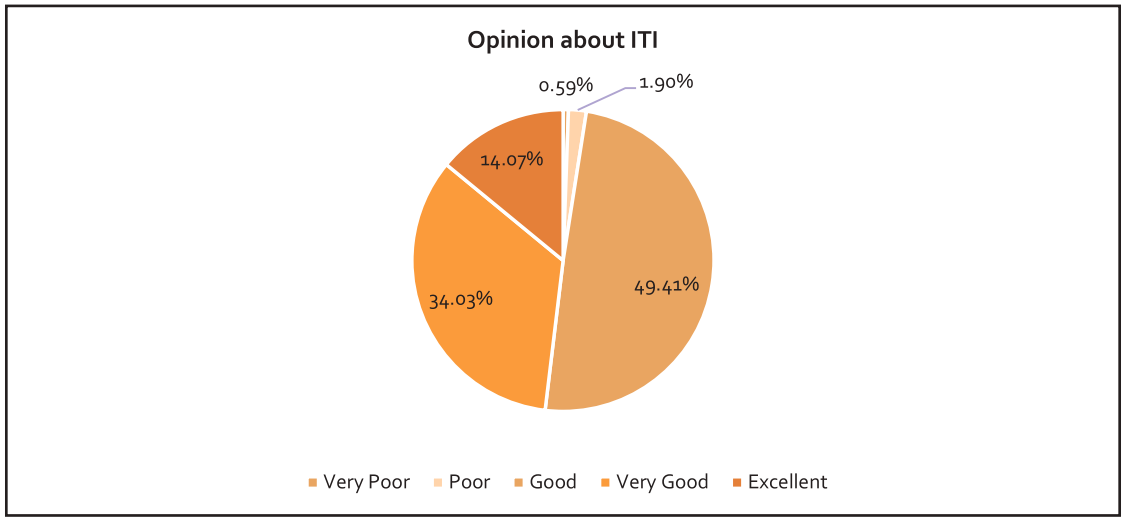

Figure 5. 52: Opinion about ITI

SUGGESTION AND IMPROVISATION AREAS

6.1 Improvisation Areas: As Suggested By ITI Pass-Out Respondents

Taking into consideration all the areas, a set of 9 areas have been listed, and respondents were requested to express their opinion on the improvisation at the ITI institutes. The respondents were then asked to state their agreement from "strongly disagree", "agree", "neutral", "disagree", and "strongly agree" for the following questions. Data analysis indicates that about half of the respondents (51%) strongly emphasized a need to increase the campus placements in the ITIs. About 44% of the respondents have expressed that a better branding of the ITI education is the need of the hour. About 42% of the respondents have emphasized that enhancing part-time earning opportunities is required during the course term.

Table 6. 1: Areas for Improvisation as suggested by ITI Respondents

Areas for Improvisations	Strongly Agree	Agree
Teaching Methodology	27.95%	31.47%
Teacher's Credibility (e.g. Behaviour)	26.60%	28.42%
Practical Training to be increased	32.83%	30.59%
Practical Training tools & Machinery need to be improved	33.40%	30.05%
Safer Working Practices	31.20%	31.33%
Behavioural / Soft Skills Training/ Exposure to employment credibility (Tata Strive)	32.77%	31.46%
Campus Placements to be increased	50.93%	33.79%
Part-time earning opportunities can be enhanced	42.01%	35.77%
A better Brand for ITI education need to be established	44.26%	31.06%

6.2 Major Concerns: As Suggested By ITI Principals

The consultations with Principals of ITIs and rigorous focus group discussions with the placement officers and faculty of ITI were conducted, and the following concerns were raised.

- Most of the time, the industries or service providers hire the students as skilled labour rather than acknowledging their specialisation. The students thus are unable to work in their field of specialisation and often get experience which is irrelevant to their skill. This reduces their scope to move on to get a better opportunity.
- The delay in publishing the students' final results incurs a loss of one academic year for the students. The current practice is to publish the results in July or August, but one or two months is delayed.

The students interested in pursuing higher studies have to wait until the results get published. The admission process ends by the time the results get published, leading to a loss of one academic year. The student has to sit idle until the admission process starts in the consecutive academic year.

- The pass-out students mostly get placed through a third-party organisation which does not hire them with the industry payroll. This is discouraging to the students since they do not consider this a good form of employment. The students get more encouragement if the placements are arranged on the campus by CPC.
- Academic eligibility for placement in most companies is a minimum score of 50%. This is also a significant issue for pass-out students.
- Few students pass out from the ITI at 17, which is not ideal for getting an apprenticeship or a job. In such conditions, the student must wait until they acquire the appropriate age and then look for jobs. This is a demotivating factor for the students. About 4.62% of the students have mentioned that they could not attend the job interviews due to the age issue.
- The commitment given by the companies to students while hiring is not always fulfilled. This increases the burden on the student. For instance, the provision of free food and accommodation is not fulfilled, and most of the time, the student is charged 50% of the cost.
- The interviews for placements are usually conducted in Cuttack or Bhubaneswar by CPC. The students from ITIs who are far away do not participate in the discussions owing to financial issues.
- There is a lack of interest in jobs offered to students outside the home state. This is primarily in the case of female students. Students do not prefer to work outside the home state owing to language, food, safety and financial reasons.
- Another major concern raised in the consultations was the structure of the Center of Excellence (COE) model. This model is not very successful since the time given to students to understand the technicalities of each trade is very little. Two months are not sufficient to understand all the courses. After that, they have to undergo elaborate classes on each trade for six months. A total of 9 institutes offering 126 seats are present in Odisha. Unfortunately, these seats are not utilized thoroughly. The job prospects are also very poor.
- Many trades do not fit in today's industry requirements. Trades like pump mechanics, diesel mechanics, and tractor mechanics are not in much demand. And few trades like carpentry need up-gradation in terms of tools and machinery. There are no job prospects for mechanical repair and maintenance of the heavy vehicle (MRMSV), an ITI Barbil.

SUMMARY OF KEY FINDINGS OF STUDY

As the analyses in the chapter showed, ITI graduates from the surveyed ITIs appeared rather satisfied with their experience in ITI education. In particular, graduates provided overall feedback about the importance of qualification and teaching quality of teaching and training staff, adequate practical training - particularly adequate equipment of schools to provide training plays an important role for the development of practical skills and competencies as well as for graduates' overall satisfaction with ITI education. In addition, the integration of training at industries into ITI education is considered to contribute to the quality of the pass-out. The responses of graduates who had participated in regular practical training in companies during the course work and after ITI as an apprenticeship provide a relatively positive picture with regard to the students' look out towards job prospects in the industries. Nonetheless, some answers regarding the provision of systematic feedback and the introduction to different work areas in the company indicate that there still might be areas for improvement in the organisation of practical training in the companies to support the development of skills and competencies of ITIs trainees and help them to gain a better understanding about the interconnectedness of work processes in a company. However, more information on the companies' characteristics in which the trainees completed practical training would be necessary to assess these statements' accuracy and relevance.

The results show that the unemployment rate (57.24%) among ITI graduates lies considerably above the state average of persons, around 6.2% . This result is mainly attributed to low salary, lack of job opportunities in the nearby areas, no proper offer from the company and lack of experience. Furthermore, the results suggest that the potential in finding a job relatively quickly after graduation from ITI is higher compared to subsequent years. The average search duration until finding employment is 4-12 months. In contrast, most unemployed ITI graduates have been looking for employment since graduating from ITI. Only a small number of graduates (5.76%) had been employed in between and were once again unemployed at the time of the survey. It remains open whether and how many more ITI graduates will find employment more than one year after leaving TVET. With regard to search strategies, for many employed graduates it proved successful to take initiative and contact companies directly. Nonetheless, however majority of the employed and unemployed highlights low salary is a major concerns for them after passing out from ITI. Industry and student response about the quality of work indicates that many ITI pass out are predominantly active in work areas of the company that entail relatively little propsects for career growth and responsibility. When looking at the current area of work, it becomes clear that the nature of the job mostly shifting towards contractual position rather than earlier era of permanent job for most of the ITI position. The study reveals that 4.68% of the ITI pass out were self-employed and 57.24% were unemplyed. One of the major reasons for ITI passout not having the job is with the increasing temporaty/contractual nature of the job propsects for ITI pass out students and majority of the opportunities are far away from their locality or near by regions and in the distance metro/industrial belts. Many times the young ITI passout students stuggle to manage work and personnel life in these distance city/industrial hamlets and live in very detrimental state. From the standpoint of human development and access to social protection, the opportunities under the prospective jobs for ITI passouts are emerging at the bottom of the pyramid. Contractual employment, precarity of

The Economic Survey has quoted the Periodic Labour Force Survey (PLFS) Report 2019-20 to say that the unemployment rate in Odisha is 6.2 percent, which is higher than the national average.

livelihoods, indignity of labour, and the criminalization of collective bargaining are generalized phenomena these days. Contractual nature of the job doesnot gurantee job security or long term growth prospects and question the fundamentals of propsects after pasing out from ITIs. In the light of the current political and economic circumstances in our country, the study find that ITI passout struggle to find out a decent job has the potential to be a watershed moment in Indian workers demanding their rights. These demands therefore assume a great significance and need to be addressed through a broader policy framework.

MAJOR AREAS OF CONCERNS

Practical skills and preparation for work are at the heart of ITI programmes to integrate youth into labour markets. They are a defining feature of technical and vocational education and training (TVET). It can significantly improve the young workforce's employability, productivity, and livelihoods.

However, the programmes frequently underperform, skills shortages, and labour market mismatches continue to be serious concerns for the government. For larger and more outward-oriented innovative enterprises, this skills limitation is often more binding, meaning that they can constrain structural development.

The section below highlights the critical concerns and suggested measures to increase employability, including TCPC management systems, institutional and policy changes, and changing students' perceptions and adaptive capacity. What is needed is an enabling environment and strategies that will help the students to gain more job prospects.

8.1 Labour Market Outcomes:

The primary purpose was to measure the labour market performances of ITI graduates across various sectors and streams. The results indicated that only 0.03% of the ITI graduates fared well in the job market by securing permanent jobs. While 19.5% of the respondents are wage labourers, leaving around 44.52% unemployed and are looking for jobs. Additionally, many female pass-out students could not secure jobs due to marriage and other family commitments.

The monthly average wage range for the employed respondents varied from INR 8000 to INR 25000. It was also observed that the respondents looking for a job have more expectations in terms of wages. This indicates that the expectations of the industries and the trainees are on different levels. Industries, many of them from the informal sector, hire trainees as labourers rather than skilled workers, reducing the possibility of higher wages. Such practices challenge the interest of the trainees too.

Ministry of Rural Development have upgraded the wage rates under rural job guarantee program, NREGS for the financial year 2022-23. The revised wages for unskilled workers have been revised from Rs 315 to Rs 326, semi-skilled workers from Rs 335 to Rs 366, skilled from Rs 405 to Rs 416 and highly skilled workers from Rs 465 to Rs 476. When compared to the other states, the skilled workers wage is around Rs 600 per day.

8.2 Engagement with local industries :

Most ITI students always aspire to get recruitment at the local industries considering it is near their home. However, it has been changed a lot during the last few years. The study captures the feeling of industry representatives and ITI pass out students who no longer want to have locals in their job considering various issues. Locals create social problems and often engage in strikes and unrest, which hampers productivity. Thus, industries have an unwritten policy not to recruit people from local regions for floor work. This has been observed in the various industrial

belt of Odisha, including Hirakud, Talcher, Anugul, and Jharshuguda. In addition, organizational structures in the formal sector have changed and the majority of floor work is outsourced to third parties' contractors. Although most of these third parties hire ITI students, the job provisions are primarily temporary and come with lots of unprofessional engagement with students in terms of less pay package, long working hours, and no welfare schemes. Thus, although the formal sector can be instrumental in job creation in local areas, these are not truly translating to significantly improve Odisha's work economy.

8.3 Home Sickness

Though many ITI students are of reasonable skill and have a solid academic record, many remain unemployed because they are unwilling to relocate to another city or state to obtain a respectable job. Homesickness is a significant barrier considering many ITI students are 16-18 years of age, which prevents them from getting suitable positions with a competitive wage package. Many ITI students face perception barriers during their first job: a low salary package and poor living and working conditions in many informal sectors. It is observed that 33.1% of students have only followed their careers in the job market.

8.4 Communication and Computer Knowledge

It was noticed that the ITI students had good domain knowledge but lacked employability skills like communication, teamwork, positive attitude, resilience, etc. These are skills that the employers deem important as they equip the employees to carry out their roles better.

At the primary level, the education offered by schools has deteriorated during the past years. Many ITI coursework students are from a weaker section of society and weak in basic information, such as arithmetic, language, and so on, due to insufficient primary level education.

Even after completing their matriculation, they cannot execute simple arithmetic calculations or speak and write correct english, both required for ITI education. So they experience difficulty being selected by a company. Another constraint that results in an unemployed or underemployed qualified student is a lack of communication skills. The majority of businesses desire that their staff possess strong communication abilities.

While computers have become an integral part of modern life, so for ITI students, there are still many for whom they remain a barrier. However, they are very much acquainted with social media on their mobile. In the current scenario, people have access to the internet via computers but lack basic computer skills such as managing excel, PowerPoint, and Word documents. As a result of poor language, communication and computer skills, ITI students have difficulty securing job opportunities.

8.5 Training, Counselling and Placement Cell:

The TCPC cell is critical for boosting labour market performance, and according to the report, each of the 49 ITIs has its placement cell. The study advises that efficient TCPC cells to be established within each ITI, backed up by the TCPC cells of the cluster's Nodal ITIs.

Campus employment is popular in the modern era, particularly in the technical and vocational education sector; ITIs are of no exception. Several ITIs expressed interest but were hampered by lack of funding for campus

interviews. Many ITIs lacked official campus recruitment plans. Campus interviews were seen solely in Cuttack and Bhubaneswar. This increases the travel burden on students from distant ITIs, and as a result, many decline to participate in the interviews. However, a review of the TCPCs' data/records suggests that the TCPCs were not particularly dynamic in providing support to trainees or pass-outs. The data on campus placement activities indicates that these were primarily employer-led campaigns to recruit skilled labour from common trades.

8.6 Apprenticeship Training

The study also indicates that very few students have gone for apprenticeship training. Only 10% of the total respondents have taken apprenticeship immediately after passing out of ITI, and only 4.54% are currently doing the apprenticeship. It was observed in the study that among the respondents who completed the apprenticeship, around 54.6% are unemployed and looking for a job. This indicates that a significantly low percentage of respondents have secured apprenticeships and are not employed after the apprenticeship.

There have been a few documented cases where students failed to show up for the final exam administered by the relevant authority at the conclusion of the apprenticeship training programme, stopping them from receiving their completion certificate. When PSUs like Nalco and NTPC request the experience certificate during the hiring process, this poses a serious issue.

8.7 ITI-Industry Engagement

One stark reality is a significant gap between industrial education and ITI education. Today's industry makes no distinction between low- and intermediate-skilled workers. Frequently, employers are unappreciative of ITI students' knowledge in their specialized fields. This gap must be addressed for the sake of the ITIians' future. The industrial policy has to consider policy intervention in addressing these issues during future engagements with various large industries in the Aluminium, Steel and cement sector.

8.8 Market-oriented course curriculum

ITIs cater mainly to the needs of the traditional manufacturing sector, representing less than 10% of the total workforce. ITIs must collaborate with the industry to provide the necessary curriculum to produce marketable ITI graduates in industry and service sectors. It is absolutely critical to position the coursework. Trades like pump mechanics, diesel mechanics, mechanical repair and maintenance of the heavy vehicle (MRMSV) or tractor mechanics need to be replaced by more knowledge-centric subjects. Service sectors like information technology, communication and strategy electronics will increase youth employability and position them as a more valuable resource pool than the low-skill workforce. The local handloom industry occasionally requires skilled craftsmanship. ITI should upgrade the technological know-how of the students in handloom, carpentry and other micro to small enterprises with high demand in the market.

For the concerns mentioned above, the following recommendations could be considered.

RECOMMENDATIONS

9.1 Focusing on short and flexible courses

The duration of the course structure needs to be flexible to allow a quick and adapt response to the changing needs of the world of work. Making the course curriculum more market-oriented is critical to bridging the gap between skills being taught and those required by the industry. Industries necessitate the development of intellectual, analytical, linguistic, interpersonal, and technical abilities. As the market advances constantly in terms of technology and equipment, there is a need to upgrade the institute's existing machinery and other resources as then students can meet industry requirements. There is an adequate proportion of male and female graduates who have provided perception that the quality of ITI institutes needs an improvement. Special sessions with guest lecturers and industry professionals who can discuss their experiences in the area can replace the usual classroom's reliance on guest lecturers, therefore enhancing the comprehension of the field among students.

9.2 Promoting advanced courses

The Directorate of Vocational Education and Training (DVET), Maharashtra has policies to promote courses in advanced technological fields such as Information Technology, Industrial Electronics, Medical Electronics, Computer Hardware Maintenance, Advanced Machine Tool Maintenance, and so on, as well as to increase the percentage of vocationalization up to 25% in order to make Vocational Education more accessible to the general public. (Directorate of Vocational Education & Training, n.d.)

The Government of India's Director General of Employment and Training (DGE&T) has launched a scheme to upgrade 500 existing ITIs. As part of the project titled "Externally Aided Project for Reforms and Improvement in Vocational Training Services Provided by the Central and State Governments," the first 100 ITIs are upgraded using domestic resources, while the remaining 400 are upgraded using World Bank funds. The scheme's goal is to create a multi-skilled workforce that meets global standards. The primary goal of the programme is to provide adequate infrastructure and equipment, update syllabi, and introduce new courses in ITIs. The government chose ITI Cuttack and ITI Rourkela. of India for improvement This scheme's introduction of multiskilling courses (Broad Based Basic Training) during the first year may be more successful than the previous CoE curriculum. (https://dgt.gov.in/VTIP)

One of the newly designed courses is the 'Drone Technician' Trade under the Craftsman Training Scheme (CTS) programme of the Directorate General of Training (DGT). CTS courses are offered across the country through a network of ITIs. After completing the training programme, the trainee is awarded a National Trade Certificate (NTC) by DGT, which is globally recognized. (TRAINING)

Gujarat government has allotted funds in the drone sector and it aims to establish a school of drones where the entire drone value chain from drone flying to assembly and maintenance will be taught. (Kapil Dave, 2022)

Since the industry is slowing booming, the opportunity of growth in Drone services sector is tremendous. Drone is now being used in agriculture sector for pest control, fertilizers, and also widely in the construction sector. By introducing this course in the curriculum, the job prospects of ITI pass outs can increase.

9.3 Streamlining hands-on training

Hands-on training methods are of utmost importance and should be an essential part of the course curriculum. Training on management of the automated machines should be an integral part of practical sessions. This gives a better understanding of the practical usage of machinery, communication and teamwork.

Mini Tool Room & Training Centre provides excellent opportunities for developing high-end technical skills through rigorous exposure of Trainees to various theoretical aspects as well as adequate hands-on practice to prepare them for employment. In collaboration with the Central Tool & Training Center (CTTC) in Bhubaneswar, three mini tool rooms have been inaugurated at ITIs in Cuttack, Berhampur, and Hirakud. A total of 12 ITI campuses has mini tool rooms that collaborates with the central tool room, of which 8 are operational and three are in the pipeline. (Express, 2020)

Therefore, it is recognized that there is an urgent need for all ITIs to develop more and more Tool Rooms/ Training Centers. This will significantly support government policy that aims to give students more opportunities to acquire skilled jobs.

9.4 Virtual mode training

The use of digital content and virtual mode training can help to improve training quality. The Skill Development and Technical Education department can assist in providing digital classrooms in order to attract this generation of students, and students can also access study material online from anywhere using their smartphones or laptops. (Express, Digital classes for ITI students from this month, 2019)

In some cases, industrial visits can be conducted virtually to provide students with knowledge about how industries actually operate.

9.5 Improving Communication and Computer Skills

Special classes on effective communication skills is highly recommended. Basic to advance computer skills involving Microsoft word, power point and excel should be included as compulsory course work.

The Odisha state government has acknowledged the importance of computer knowledge leading to programmes like Tata STRIVE, Bagchi Life skills Development Programme. These initiatives not only brought government, industry and an HNI donor in one platform, also encouraged the ITI students to develop communication and computer skills. As part of this programme, trainees are encouraged to develop their soft skills by participating in role plays, making presentations, and teaming up for projects that take them out to the real world. Focus on immersion sessions and behavioral change techniques have assisted the students' inner transformation process. The introduction of modules on Safety, Sustainability, Total Quality Management and Design Thinking has made their learning more relevant and in sync with industry expectations. The study hopes TATA STRIVE may bring in desired changes.

To achieve a perfect balance, one must balance technical knowledge with personality development. Personality development is a tool for enhancing one's innate abilities for self-recognition and instilling confidence in one's ability to face the outside world. ITI graduates require proper training in the development of soft skills in order to be prepared for the recruitment process and to find better career opportunities.

9.6 Campus placements needs to be streamlined

Networking directly with the local and distant industries can minimise the overpowering role of third-party contractors. It will also ensure the right payments and recognition of the craftsman skills of the ITI pass-outs. Efficient TCPC cells need to be established within each ITI, backed up by the TCPC cells of the cluster's Nodal ITIs. Efforts should be made to arrange placement interviews at a location for all the ITI's under the cluster. Securing jobs should be backed by TCPC through effectively sharing information on various job sites. Convincing employers to arrange campus placements or send their trainees to job fairs by giving free transportation should be promoted more often.

Career coaching and frequent workshops on job markets will make students more competent to face the labour market challenges. It will help develop a practical understanding of the skill requirements and reality-check their dreams and aspirations.

9.7 Internships should be made mandatory

In collaboration with leading industries, internships will enable ITI pass-outs to acquire skills that otherwise cannot be learned in the classroom environment. Mandatory internships in the final year will increase the probability of securing jobs. This, to a great extent, will address the problem emanating from the mismatch between employers' skill requirements and job seekers' skill base. Through internships, industries can discover the students' abilities and skills and hire them whenever the opportunity arises. It will also create opportunities to develop entrepreneurial skills and prepares them for self-employment.

9.8 Moving out from traditional apprenticeships

Traditional apprenticeships form a significant share of informal training. Apprenticeships in more commercially demanding trades can address the problem of rising unemployment and under-employment. There is a need for increasing the coverage of apprenticeship training. ITIs should be partnered with the local industries to encourage apprenticeship. This will improve the exchange of information which the industries can only provide. Special assistance must also be given to trainees who belong to tribal communities and far-off places to gain apprenticeships. There is a need to establish a framework for information exchange between the ITI and apprenticeship systems.

9.9 Connecting with local industry, particularly MSMEs

The role of MSMEs will be significant in generating jobs and making India self-reliant. MoUs with micro, small and medium enterprises will open up opportunities for ITI students. Practical understandings through industry tours will make the students better aware of the job requirements. This will also improve their standard as a specialized labor force rather than a skilled laborer. There is increased potential for job creation in renewable energy, service sectors (Carpentry, plumber, EV motor mechanic and electronic appliance mechanics) and health care. These sector players need to be connected by the placement cell and ITIs.

In the recent past, Odisha has also attracted a number of significant investments in mining, steel, port and infrastructure. The government of Odisha may consider introducing policy where all these sector players

must absorb the majority of the ITIs qualified workforce only from ITIs in Odisha. Encouraging private companies to hire locals as part of their strategy could effectively tackle unemployment.

In reference to the proposal submitted by DTET Cuttack, Odisha to SD&TE Department, Bhubaneswar, Odisha, outlining the scheme for incentivizing industries/through MSME's sharing of stipend for apprenticeship training, it is essential that MSME's recruit students as part of their apprenticeship programmes. The scheme requires establishments to appoint apprentices in proportions ranging from 2.5% to 10% of their human resources and to register them online via the NCVT MIS Portal. The Apprenticeship Contract Registration entitles online-registered apprentices to a monthly stipend equal to 70% of the minimum wage prescribed by the government for semiskilled workers. The online registered establishments are responsible for the entire stipend, of which 25% is reimbursed quarterly by the Government of India or Ministry of Small and Medium Enterprises in DGT, New Delhi.

Even though the scheme is still undergoing review, once it is accepted, all three major stakeholders, ITI, Industry, and Society, stand to gain substantially. For the purpose of enhancing their employability, ITI students will gain greater exposure to the industry work environment and practical experience. MSME's can also participate in the training programme conducted at the ITI level in order to quickly adapt to technological advances.

More micro, small, and medium-sized enterprises will be encouraged to hire more apprentices at nominal cost (i.e., 35%, or 50% of the 70% minimum wage for semiskilled workers) in order to increase industrial productivity.

9.10 Creating Job prospects for female pass outs

At the ITI level, female students can be made aware of employment opportunities in the manufacturing sector, with a focus on the fact that such sectors do not compromise employee safety and health. This may be accomplished more effectively with the use of MoUs with companies employing a greater proportion of women, which can boost the confidence of female graduates and encourage them to enter the workforce. Regular counselling workshops with successfully employed seniors and career coaches could help generate confidence among the female students, positively shaping their career aspirations. ITIs should be equipped with in house counselling cells, and psychologists.

During the placement drive, a clause may be drawn up along with the MoU with firms that a particular percentage of female students should be recruited, ensuring that sourcing and hiring follows a strict procedure that focuses entirely on the individual's competence and skill rather than gender. To reduce unconscious bias and stereotypes, companies and students can participate in a gender-awareness training programme at the ITI level. It also discusses the successful global practices where women have been given the opportunity and conducive conditions, they have excelled.

9.11 Making ITI a bridge to higher diploma or graduation

ITIs were established to train craftspeople who can work as skilled workers in the organized sector of the Indian labor market. Teachers and trainers should focus on motivating students to take up higher education. This would increase their probability of managerial positions in traditional and service sectors.

The Directorate of Vocational Education and Training (DVET), Maharashtra has made changes to ITI courses and 10+2 courses. The most recent admission process for ITI graduates into degree programmes is granted when they pass the two language subjects with the necessary equivalence. Because of the equivalence to classes X and XII, this policy will attract more admissions to the ITI course. (India, 2021)

9.12 Promoting self-employment

The study shows that 7.9% of the pass-out students are self-employed, although many are not associated with their trade. There are many emerging jobs and self-employment opportunities in metros and second-tier cities, mostly carpentry, electricians, tailoring, mechanics and plumbers. Some of the new-age companies like "Urban Company" engage thousands of people to provide services in a structured manner. Similarly, electric vehicles, battery charging stations, garment manufacturing, home appliances, and solar power companies are growing multi-fold, requiring a thousand workforce and entrepreneurs in this space. In addition, with the increasing government focus on increasing farmer income to double, there will be great demand for agriculture tools and support for disseminating information on agriculture best practices and weather information systems. A large educated workforce is needed to meet the demand, and ITI graduates can be prepared to take up opportunities in these sectors. Positioning each of it and its students can help improve their income and attract many more to the job market.

Nano-Unicorn Entrepreneurship Programme, Odisha, organised by the Odisha Skill Development Authority, invites applications from skill-trained youth who are the domiciles of Odisha. The program aims to encourage entrepreneurship at the grass-roots level by providing mentoring, training and capital funding to skilled youth who could be prospective entrepreneurs. This programme provides training and funding up to INR 1 lakh to selected candidates. A course on entrepreneurship needs to be introduced in the ITI course work where the course work should provide mentoring, training and business fundamentals. Nano unicorn scholarship program can be extended up to 30lakhs for 10 members of the group to create employment generation at Panchayat level.

9.13 Mentoring

It is difficult for students of ITIs to decide what they should do after the ITIs considering many of them are from economically backward sections and doesn't have much guidance from parents and close circles. During this time, if someone holds their hand without judging and imposing their dreams on them, it will result in better decision making in their career path. If someone wants to pursue their career and there are opportunities, then there should be someone to guide them and let them know of the process and research for them as a mentor. It is usually problematic in most ITI students' households where generational patterns choose professions, and it often restricts the child in following his/her interests. The mentor's work is to provide help, guidance, and ideas that can be instrumental in bringing in quality students from ITIs. The mentorship can be open to interested mentors who would like to support the students through the phone and can be available to anyone from Odisha or other states. There can be specific criteria that can be defined for people who will apply for mentors. An APP can be developed that can be instrumental in connecting the students with the mentors based on mutual interests. A detailed plan in this direction elaborating functionality, efficacy, safety, and security needs to be worked out.

9.14 A better branding of the ITI education is the need of the hour

Better branding and advertising of the ITIs will help get and keep the attention of the companies in a positive way. It will help echo the identities and values for which ITI stands. This will have a multifaceted impact on the students and their families, developing a sense of association, unity and pride. Proper branding through mainstream and social media advertising will help the hiring companies recognize the students and develop a relationship of trust among them. Documentary on successful case studies particularly female entrepreneurs can be used as a catalyst to encourage female ITI pass outs in entering into the job market/business.

REFERENCES

- P. Wberkevwe. L. Victoria, APRIL 26, 2021. What we've been reading: How to improve technical and vocational education and training for youth in developing countries. https://blogs.worldbank.org/jobs/what-weve-been-reading-how-improve-technical-and-vocational-education-and-training-youth
- Study of ITI Graduates in India Final Report Submitted to DGE&T, Ministry of Labour and Employment, Govt of India CENPAP
- Mau, W. C., &Bikos, H. (2000) "Educational and vocational aspirations of minority and female students: A longitudinal study ", Journal of Counseling& Development, 78, 186-194.
- Senthilselvam.S , Subramonian.G (2015), "Level of aspiration among higher secondary students of Coimbatore district", Paripex-Indian journal of research , Vol.4, issue:6, pg no.401-403
- Becker, G S and H G Lewis (1973), "On the Interaction Between the Quantity and Quality of Children", Journal of Political Economy 81(2), S279- S288.
- Becker, G. S. (1973). On the Interaction Between the Quantity and Quality of Children. Journal of Political Economy 81(2), S279- S288.
- Directorate of Vocational Education & Training, M. S. (n.d.). Directorate of Vocational Education & Training, Maharashtra State, Mumbai. . Retrieved from https://www.dvet.gov.in/en/dvet-policies/
- Express, T. N. (2019, October 12). Digital classes for ITI students from this month. Bhubaneswar, Odisha, India: The New Indian Express.
- Express, T. N. (2020, September 20). Odisha to transform ITIs into centres of excellence. Odisha, India: The New Indian Express.
- India, T. T. (2021, Jan 21). 2-year industrial training made equivalent to Class XII. Aurangabad, Maharashtra, India: The Times of India.
- Kapil Dave, T. o. (2022, April 19). Gujarat: Drone operation to be part of ITI curriculum. Times of India.
- Mau, W. C. (2000). Educational and vocational aspirations of minority and female students: A longitudinal study. Journal of Counseling& Development, 78, 186-194.
- Senthilselvam.S, S. (2015). Level of aspiration among higher secondary students of Coimbatore district. Paripex-Indian journal of research , Vol.4, issue:6, pg no.401-403.
- TRAINING, D. G. (n.d.). DRONE TECHNICIAN, CRAFTSMEN TRAINING SCHEME (CTS). Retrieved from COMPETENCY BASED CURRICULUM,:
- https://dgt.gov.in/sites/default/files/DRONE%20_TECHNICIAN%20_NSQF%20_LEVEL_4.pdf