RAKSHAK FOUNDATION

Four year action plan for up-gradation of existing ITI system in Uttar Pradesh

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Preface

My name is Anup Digambar Phulsundar. I am currently pursuing a PGDM course from IIM Indore. I have done computer engineering from Dr. MGR university, chennai. I chose to participate in the program because I wanted to know how governmental policies are formed and implemented. I have a greater understanding of public administration which I believe would help me as a manager. Rakshak Foundation researches different public policy issues and creates awareness about them. Rakshak Foundation sponsors Seminars on public policy matters, sponsors activities to involve the youth in social issues including volunteering and supports programs to help the needy.

Acknowledgements

I would like to thank Shri VikasGothalwal, IAS for agreeing to mentor me. Through the course of the internship we have learnt a lot due to his able guidance. I would also like to thank Rakshak foundation for providing me an opportunity to work with them. My sincere thanks also go to Shri Rajeev Kapoor (IAS), Anita Shrivastav (additional secretary) and directorate of vocational education and training for their help.

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Executive Summary

The report consists of four year action plan for up-gradation of existing ITI system in Uttar Pradesh. The current system of vocational training in Uttar Pradesh suffers from a number of deficiencies.

- The total capacity is far less than the actual demand. Again, the geographical distribution of ITIs/ITCs is heavily skewed.
- The existing infrastructure needs up-gradation as per the changing needs of the market. There is no availability of hostel facility for the candidates.
- The employability of trainees is very low around 15-18%. The courses are not in sync with the current market needs.
- There is an acute shortage of trainers and also there is no institutional mechanism for upgrading the knowledge and capacities of the trainers.
- The participation of industries and professional training providers is very low because of lack of comprehensive policy framework to engage them in a positive manner. Under these circumstances, there is an urgent need to draw a comprehensive plan for development of ITIs/ITCs in the State.
- There is no up to date data on all the existing ITI's. Thus there is a need to develop a Management Information System to overcome this problem.

Report also consists of proposed solution for the problems faced by current ITI system and implementation for the same. Following areproposed solutions:-

- MIS to be developed to gather data from all ITI's.
- As geographical distribution of ITIs/ITCs is heavily skewed, to reduce this, districts have been prioritized based on various factors such as population, literacy, density, existing number of ITI's and seats in those ITI's. A ranking has been provided to increase number of ITI's and seat capacity.
- Centralized purchasingprocess has been proposed to reduce corruption and to ensure that standards can be maintained for the equipment in the workshop.
- Centralized placement portalcan be created for all ITI's across UP with industry and student access so that all new jobs in the state can be seen by all students across UP.
- Instructor training in the industry to ensure that they remain competent.
- Trade analysis has been done to analyze the non- performing trades based on the admissions and seats vacant. Recommendation has been given to reduce the number of units intake or to discontinue the trades altogether.
- Malpractice can be reduced in Examination by sending papers directly to exam centres rather than district headquarters.

1. Introduction

1.1 Background Information

The Directorate General of Employment & Training (DGE&T)[4][5] in Ministry of Labour is the apex organisation for development and coordination at National level for the programmes relating to vocational training including Women's Vocational Training and Employment Services. Employment service is operated through a countrywide network of Employment Exchanges. Industrial Training Institutes are under the administrative and financial control of State Governments or Union Territory Administrations. DGE&T also operates Vocational Training Schemes in some of the specialised areas through field institutes under its direct control. Development of these programmes at national level, particularly in the area concerning common policies, common standards and procedures, training of instructors and trade testing are the responsibility of the DGE&T. But, day-to-day administration of employment Exchanges and Industrial Training Institutes rests with the State Governments/ Union Territories Administrations.

The Directorate General of Employment & Training (DGE&T) in the Ministry of Labour, Government of India initiated Craftsmen Training Scheme (CTS) in 1950 by establishing about 50 Industrial Training Institutes (ITIs) for imparting skills in various vocational trades to meet the skilled manpower requirements for technology and industrial growth of the country. The second major phase of increase in ITIs came with the oil-boom in West-Asia and export of skilled manpower to that region from India. Several new private ITIs were established in 1980's in southern states mostly in Kerala, Karnataka and Andhra Pradesh, etc. from where trained craftsmen found placement mainly in Gulf countries. In 1980, there were 830 ITIs and the number rose to 1900 ITIs in 1987. During 1990's, the growth of ITIs had been steep and presently there are over 4971 ITIs (1869 in Govt. & 3102 in Private Sector) having a total seating capacity of 7.18 lakhs

Under the constitution of India, Vocational training is the concurrent subject of both Central and State Governments. The development of training schemes at National level, evolution of policy, laying of training standards, norms, conducting of examinations, certification, etc. are the responsibilities of the Central Government, whereas the implementation of the training schemes largely rests with the State Governments/Union Territory Administrators. The Central Govt. is advised by the National Council of Vocational Training (NCVT), a tripartite body having representatives from employers, workers and Central/State Governments. Similar Councils known as State Councils for Vocational Training are constituted for the same purpose by the respective State Governments at state levels.

Broad objectives of CTS scheme [4]:

- To provide semi-skilled/skilled workers to industry by systematic training to students who have left school due to various reasons.
- To reduce unemployment among educated youth by equipping them with suitable skills for industrial employment

Broad objectives of Apprenticeship Training Scheme [1]:

- To regulate the program of training of apprentices in the industry so as to conform to the syllabi, period of training etc. as laid down by the Central Apprenticeship Council
- To utilize fully, the facilities available in industry for imparting practical training with a view to meeting the requirements of skilled manpower for industry.

The DGET is the enforcing body that implements both the schemes in the different states of India.

1.2 Main Problems, their scope and impact on the society

Major issues that we faced include but are not limited to the following:

- Lack of data on the various ITI's that operate in the state.
- Funds are not properly utilized. The centre releases funds but only a very small percentage finally reaches the ITI's.
- Lack of funds which leads to understaffed ITI's and lack of proper equipment.
- Rampant cheating in the examinations because of which the dedicated students lose out.
- Lot of scrap material is occupying space in the ITI's which is not being auctioned.
- Poor job prospects after completion of the course.
- Mark sheets not reaching the students on time. Many times the students receive their mark sheets after 2 years.
- The total capacity is far less than the actual demand. Again, the geographical distribution of ITIs/ITCs is heavily skewed.
- The existing infrastructure needs up-gradation as per the changing needs of the market. There is no availability of hostel facility for the candidates.
- The employability of trainees is very low around 15-18%. The courses are not in sync with the current market needs.
- There is an acute shortage of trainers and also there is no institutional mechanism for upgrading the knowledge and capacities of the trainers.

1.3 Goals and Objectives

The Plan shall consider the following aspects and suggest definitive actionable strategy for development of ITIs/ITCs:

Policy for opening new ITIs/ITCs: In order to meet the demand, new infrastructure has to be created. However, there shall be a policy framework to decide how and at what rate the new infrastructure should be created so that not only the gap shall be met but also the geographical disparity shall also be addressed.

Funding Pattern for New Infrastructure: Other than the regular departmental budget, there are number of central schemes such as MSDP, BADP, SCA to SCSP, BRGF etc. through which this infrastructure can be created. The Plan shall consider all the available scheme so that sufficient funds can be generated for creating the infrastructure.

Up-gradation of Existing Infrastructure of ITIs: The existing infrastructure has not been upgraded as per the need and demand of new trades and courses. The equipment and machinery has also become obsolete. The plan shall assess the existing infrastructure (buildings, equipment, machinery) and suggest the requirements for up-gradation.

Hostel Facility for the Candidates: It has been felt that non availability of functional hostel facilities in ITIs/ITCs not only affects the quality of the training program but also affect the accessibility especially for vulnerable sections of the society. The Plan shall include the assessment of existing infrastructure of hostels within ITIs and shall find out the additional requirement of hostel facilities. A large number of hostels were constructed under other schemes which are not functional currently. This infrastructure shall also be considered for optimal use.

Rationalization of Courses: There are a number of courses which are no longer in demand. Also, there are a larger number of similar trades which can be grouped together. Some of the courses are affiliated to SCVT because the requirements of NCVT are not met, though the syllabus is as per NCVT. There is demand to design the courses as per the local and market needs. All such aspects shall be considered and analyzed, in order to, rationalize the courses, so that employability of trainees can be enhanced.

Capacity Building of Human Resources: There is an acute shortage of trainers both in ITIs and ITCs. Also, there are no institutional arrangements for capacity building of

existing human resources. The Plan shall include the assessment of all human resources, engagement/recruitment of technical faculty, methods and institutional arrangements for capacity building.

Employability of Trainees: Presently, the employability of trainees is very low approx. 15-18%. There are very minimal arrangements for linkages to employment. The plan shall suggest methods to enhance the employability of the trainees and strategies to establish strong linkages for employment.

Management Information System: The directorate of employment and training does not have a functional MIS to monitor the schemes being implemented. The plan shall design a robust MIS for the directorate.

2. Methodology

2.1 Literature Search

- Book on The Apprenticeship training act, 1961 [1]:-

This book helped in understanding different schemes such as ATS, CTS, COE. It helped in understanding the apprenticeship training act 1961 and provisions of the act and besides that it helped to understand different trades and requirement of those trades in terms of period of training and educational qualifications required for that trade

- Policy for skill development in Uttar Pradesh [3]

It helped in understanding the funding schemes and which districts are covered under which scheme.

- Report on Financial aspects by vocational education department[2]

It gives an idea about the allocation of the money and money spent in that year. It also provides data related to financial heads under which the money has been allocated and helped to carry out the gap analysis.

2.2 Field Visits

Sl.No.	Outcome(Problems that have been observed)	Action Planned
1	Lack of instructors. More units per instructor overburden the instructor thus hampering the quality of teaching. Leads to a lack of enthusiasm from the instructor	**To work on Recruitment policy**
2	Lack of well-trained instructors. Instructors should be proficient in their subject and must have practical knowledge. Only theoretical knowledge will not suffice	**Training sessions can be scheduled**
3	Principals are notavailable to look afterthe training programs given to instructors and students, as they are busy with budget allocation and purchasing equipment'sand hence they are not able to give enough timeto these vital activities	**Burden on Principal can bereduced through centralized purchasing**
4	Exam results are not handled properly. Mark sheets come after 6 months. They invariably end up having wrong names or wrong parent names. A very cumbersome process ensues to get this data corrected which frustrates the students	**Students can verify their names online during filling the form for exam itself. This way it can be ensured there will be no mistake in mark sheets. Computerizing the process would also help.**
5	Stores are filled with useless scrap and as such cannot accommodate any more scrap. So it becomes a problem for the instructor to take care of the unserviceable equipment	**Auction of Scarp material can be carried out**
6	Lack of budget for guest faculty for advanced courses. They are paid a paltry sum of 150 Rs per hour and hence lose interest in teaching the students	**Special provisions can be made for budget allocation of guest faculty**

2.3 Surveys

Since there is no data of all the institutes available the need of the hour was to develop an MIS that could capture data. To this end a prototype was developed. Please refer to the appendix for the ER diagram, Schema and snapshots of the forms. The process involved the following steps

- Development of an ER diagram to identify the various entities and relationships in the ITI system.
- Development of a schema from the ER diagram to ensure that the data is consistent and can be queried to throw automatic results.
- Development of a working prototype with a Graphic User Interface to make the system easy to use and speed up the data collection process.

The MIS was deployed and over the course of a month data was collected. Data was collected under various heads including infrastructure, hostel availability, funds, IMC details, job details, academic details and staff details. Thus steps were undertaken to create and maintain a repository of the most basic information with respect to ITI's all across the state of UP.

A sample response under the trades head is as shown below:

Serial number	**Name of Trade**	Original Seating capcity - Excluding Supernumeries	Unit size	Number of units run	Number of seats filled	Number of males	Number of females	Vacancies	Seats filled by SC students	Seats filled by ST students	Seats filled by OBC students	Seats filled by Minority students	Seats filled by Physically handicapped students	**ITI Code**
1	**FITTER**	**16**	**1 + 1**	**1 + 1**	**21**	**18**	**03**	**_**	**04**	**0**	**12**	**01**	**_**	**052**

2	MECH. REFRIGERATION & AIR CONDITION	16	1 + 1	1 + 1	21	20	02	_	03	0	09	02	_	
3	STENO HINDI	16	1	1	21	05	16	_	04	01	08	02	_	
4	HAIR & SKIN CARE	16	1	1	16	_	16	05	03	0	05	02	_	
5	CUTTING & SEWING	16	1	1	14	_	14	07	02	0	07	02	_	
6	ELECTRICAL COE (PPP)	96	1	1	126	114	12	_	26	03	65	10	_	
7	MECHANIC MOTOR VEHICLE	16	1	1	_	_	_	_	_	_	_	_	_	
8	MECHANIC DIESEL	16	1	1	21	19	02	_	03	01	10	02	_	

Also surveys were conducted by physical going to ITI's and obtaining data from the various stake holders. After doing the survey, we found out various problems faced by students, faculty, industry and suggestions given by them. Following are the problems and suggestions given by the stake holders from their perspective:-

Faculty perspective:

1. Lack of instructors. More units per instructor overburden the instructor thus hampering the quality of teaching. Leads to a lack of enthusiasm from the instructor.
2. Lack of well-trained instructors. Instructors should be proficient in their subject and must have practical knowledge. Only theoretical knowledge will not suffice.
3. The ATI is not doing a good job of training the instructors. It is producing poor quality instructors.
4. Workshops in the district do not take on the students for the internship duration even when students are ready to work for free. This leads to dissatisfaction in the program.
5. Students are made to work without remuneration. This could lead to student abuse by the workshop owners possibly to extract maximum work for no pay.
6. Students are not given travel allowance. Most students are from a very under privileged background and cannot afford to pay for the travel even if it is a small amount like 50 Rs per day.
7. No centralized purchasing of equipment for the workshops. This could lead to corruption.
8. Principals are not that worried about the training programs given to instructors and students. They are more concerned about budget utilization and hence are not able to give enough attention to these vital activities.
9. Since the system encourages individual procurement of equipment there is no standardization in the purchased equipment. Individual procurers do not have an exact idea of what equipment to buy. The purchase of equipment's should be standardized so that quality remains consistent and also bulk purchasing can lead to rebates which could lead to funding of other underfunded activities.
10. Tenders for procurement are not published on the web or advertised in the papers. Tenders are being handled by the principals themselves. This is another possible source of corruption.
11. Exam results are not handled properly. Mark sheets come after 6 months. They invariably end up having wrong names or wrong parent names. A very cumbersome process ensues to get this data corrected which frustrates the students.
12. Another issue is that instructors with B.E. backgrounds can teach the theory very well but are unwilling to dirty their hands in the practical training. They do not wish to do these jobs as they have the mindset that this is menial work.
13. Power cuts are a major problem in most ITI's. Without power practical classes cannot happen. This hampers the students greatly.
14. Lack of hostel facilities at the ITI even with the presence of buildings.
15. Stores are filled with useless scrap and as such cannot accommodate any more scrap. So it becomes a problem for the instructor to take care of the unserviceable equipment.

16. Lack of budget for guest faculty for advanced courses. They are paid a paltry sum of 150 Rs per hour and hence lose interest in teaching the students.
17. The same class has students who are fresher's who have only passed class 8 and also people who have done MSc and are 28 to 30 years old. This leads to heterogeneity in the class as different people have different grasping power and different amount of experience. The instructor is not able to meaningfully instruct such a class.
18. In the Centre of excellence the student has to do 6 months of industry training apart from 6 months of internship. And the student is given the certificate from NAC only after 6 months of apprenticeship. In this process the student loses 6 to 8 months.

Student perspective:

- No hostel facility, hence students are forced to travel and spend a lot of money which many of them cannot afford.
- No proper workshop/lab facilities. Sometimes the students have to make do without even the most basic facilities.
- Children do not learn. They just do rote learning as the instructors have no latest knowledge on the subject.
- Text books are in English. Hence it becomes difficult for most students to follow.
- Basic facilities like water and toilets are missing.
- No travel allowance given for students who come from very far off places.
- Instructors are missing from class rooms - they are never regular to classes. No mechanism to ensure that instructors are on time. Many of the time they are posted on one duty or the other and hence are not able to focus on teaching.
- No computer facility. It becomes difficult to teach computer aided subjects. Just one computer for the whole class whereas industry requires work to be done on computers.
- No continuous improvement plans for instructors. They have very outdated knowledge.
- No incentives for instructors to perform.
- Exam results are never out on time. Often students waste more than one year because of this.
- Session is supposed to start on 1 August but actually starts sometime around December or January as seats are never filled on time.
- Poor prospect of jobs after passing out of the ITI.
- No railway concession forms are available in spite of government promises.

Principal perspective:

- Foremen only signing attendance register but not doing their duty properly.
- No instructor assessment program.
- Machines are lying around unserviceable and hence clogging up the scrap room. The burden falls on the instructor to take care of these machines. They should be auctioned and the money generated should be used for the development of ITI's.
- Hostels should be opened up so that the students do not have to travel from very long distances.
- Principal cannot focus on the day to day operations of the ITI because of bureaucratic processes and fund utilization activities.
- Cheating is very rampant in the examinations. If one can reduce cheating then one can ensure that only the deserving candidates pass and get the good jobs.
- A fee of 40 Rs is negligible and is of no use for the government ITI's. The fee should at least be increased to 400 Rs so that the functioning of the ITI's can be smoothened.
- The government should have linkages with PSU's which must ensure that whenever there is a requirement of candidates the ITI students should get a chance to apply for these companies.
- Surprise visit by faculties to industries to ensure that the students are not being abused in terms of over work or minimum wage.
- Focus must be on basic facilities like fans in workshops, generators for power backup and glass panes in workshops to prevent the rain from entering and ruining the machines in the workshops.

Private ITI perspective:

- Some of the students do not turn up for classes in both the years. They cheat in the exams and get good marks. This happens in both Government ITI's and private ones as well. A strong examination system would do away with these practices.
- The QCI system is very strict and ensures only good quality ITI's will be opened in the future. It is not possible to open dud ITI's which function only during the time of exams and remain closed the rest of the year. Many ITI's always remain locked throughout the year. Such ITI's must be identified and immediately closed.
- A centralized portal for placement of all ITI students is advisable. The private ITI's have no way of getting the big companies to hire at their campuses. The best option would be to have a centralized placement portal for students across all ITI's in UP. When a company has a requirement it should put up the job details along with the location and pay on this portal. The students could sit for these companies based on their interest. This would greatly simplify the lives of many students who struggle to find jobs after the ITI course.

Industry suggestions:

- Students who are ready for the apprenticeship are available throughout the year. This should be changed so that all students who are looking for apprenticeship come out at one season during the year so that all companies can come and recruit them during that one season.
- In the future one can look at a joint entrance examination system for both private and govt. ITI's with a seat counselling system which is the procedure followed in engineering colleges. This could go a long way in maintaining quality and also ensure that students can get the subject that they want in an area that they are comfortable with and this would ensure some way to gauge the ability of private ITI students for the industrial sector.
- Syllabus should be upgraded. The syllabus in ITI's is not of any practical use. Students should be taught the current industry requirement.
- The instructors should have training in the industry once every 3 years to ensure that they remain abreast of the latest technologies in the industry. The government should facilitate such a process.
- Continuous assessment of the teachers with surprise inspections from the government by persons of authority will ensure that the ITI system is up to date and the teachers are doing their duty.
- The government fixes the limit for the stipend at 2000 Rs. The government could look at increasing this figure so that it will help the students to sustain themselves. If any damages or wastages are incurred because of the student then the student can be penalized up to the point that he takes at least 2000 Rs home with him per month.
- Audit the private ITI's as some of them are below the mark. The government should close all the ITI's that are not performing up to the mark or are not meeting minimum requirements.
- When opening new trades in any district please open them according to the requirements in that district based on the industries that operate in that district or in the nearby districts. This would ensure more children get jobs with minimum migration of students.

2.4 Meetingsand Interviews

Date	Name	Designation	Institution	Topic of Discussion
8-4-13	Shri B. N Shrivastav	Senior Instructor	ITI Aliganj, Lucknow	• Procurement process • Instructor Training Program
8-4-13	Shri Rajendra Prasad	Principal	ITI aliganj, Lucknow	• Problems related with the apprenticeship program • Problems related with instructor trainings and its schedules
26-4-13	Shri M. H. Osnani	Principal	ITI Allahabad	• Problems related with infrastructure

3. Current NGO and Government Efforts

- State vocational education department has tied up with industry association Confederation of Indian Industries and Tata Consultancy Services to conduct a faculty development programme to enhance the employability skills of teachers in the state-run Industrial Training Institutes (ITIs).
- Tata Motors Ltd and Confederation of Indian Industry (CII) with the support of ISTD and Government of Uttar Pradesh organised a day-long workshop on 'Positive Attitude' catering to the staff of government-run Industrial Training Institutes in Lucknow.
- The National Skill Development Corporation (NSDC) is supporting the setting up of profit-making companies that run ITI's, since 2010, to promote skill up-gradation. The number of private ITI has shot up to around 1400 institutes.
- Government is looking at increasing the funding to upgrade the entire ITI system in UP by setting up new ITI's and developing existing ones. This is being done through a corpus of 23 CroreRs just for ITI up gradation.

Analysis:

- While it is a positive step to see industry interaction the need of the hour is for constant and involved participation by the industry. A week or day long workshop is sometimes not enough to bring the staff up to mark.
- A dedicated centre to train the staff and provide certification courses so that staffs has detailed, practical and current knowledge is the requirement. The ITI staffs needs to be trained by industry experts and this process can be incentivised for both the trainers and the staff to ensure its success.
- Although the number of private ITI's has shot up, the quality of these institutes is still a cause for concern. Private ITI's should have surprise inspections from the centre to ensure compliance at all times. The new QCI system is proving to be good in terms of maintaining quality and standards for private ITI's.
- The fund should be used to create a centralized purchasing mechanism and placement portal that would benefit the students greatly.

4. Results and Discussions

4.1 Findings from the literature

Helped in understanding different schemes such as ATS, CTS, COE [1-5]. It helped in understanding the apprenticeship training act 1961 and provisions of the act and besides that it helped in understanding the different trades and requirement of that trades in terms of period of training, educational qualifications for that trade It helped in understanding the funding schemes and which districts are covered under which scheme. It gives an idea about the allocation of the money and money spent in that year. It also provides data related to financial heads under which the money has been allocated and helped to carry out the gap analysis.

4.2 Finding from the fields and impact on the theoretical focus of the project

- **Introduce centralized purchasing.** This will reduce corruption and standards can be maintained for the equipment in the workshop. A good technical team to co-ordinate the procurement process. This will ensure that standards are maintained.
- A systematic procedure to **float tenders** with national standards to be followed while purchasing the equipment.
- **Scrap needs to be auctioned immediately** to clear the store so that unserviceable equipment can be transferred to the store.
- **Lack of instructors** is a major problem. Possible ways to overcome this problem is to increase their remuneration.
- **Instructor training in the industry to ensure that they remain competent.** This should be done regularly once every three years. For example, get the instructors trained at companies like TATA so that they have the latest up to date knowledge and are able to better instruct the students.
- Introduce a **centralized placement portal** for all ITI's across UP with industry and student access so that all new jobs in the state can be seen by all students across UP. This would also strengthen the bond with the industry.
- Unify the registration and the exam result process. So the names gathered during registration can be verified by the respective teachers in the classrooms and ultimately this data can be used to give the final results. **Computerize the results and mark sheets.**
- **Joint entrance examination system with counselling of seats for both private and government ITI's.** This would ensure a transparent process.

- **Reduce cheating in examinations.** Possible ways are to have surprise inspections across random examination centres, involve a third party like security agencies to conduct free and fair examinations or involve the police. The board examinations are conducted across UP and there is very less cheating in that system. Similar thought process can be applied in this case as well.
- **Upgrade to a semester wise system rather than having a single examination at the end of a 2 year or a 3 year course.**
- **The allocation of examination centres must be done by the administration and not by the principals to reduce the scope of cheating.**
- Make the **name change process in mark sheet a transparent process** without making it unnecessarily cumbersome.
- **Open up the hostels** for the students. Without open hostels the students would unnecessarily suffer.
- Travel allowance must be provided to students. This would make ITI's more attractive to students.
- Government must ensure that students are given minimum wage when they do internships outside the ITI to prevent abuse or ill treatment.
- Increase budget for guest faculty to rope in more quality faculty with good industry experience. This would help both the faculty and the students.

4.3 Gap analysis

Financial analysis for CTS scheme	Funds sanctioned	Funds utilized	Unutilized funds
2007-2008	5900	4006.48	1893.5
2008-09	4602.07	5747.06	-1145
2009-10	9156	6579.95	2576.1
2010-11	10837.32	9079.18	1758.1
2011-12	11305.51	9272.32	2033.2
2012-13	20300	-	-
Total except for 12-13	41801	34685	7115.9

All figures in lakhs **Source: [2]**

Staff vacancies [2]:

Sl. No.	Class	Available posts	Filled posts	Vacant posts	% posts vacant
1	1	32	23	9	28.13
2	2	224	166	58	25.89
3	3	5151	3260	1891	36.71
4	4	2110	1642	468	22.18

The figures in this table are as of 2012

As can be seen a majority of the funds remain unutilized. As of 2011-12 about 7115.9 Lakh rupees remain unutilized.

The major reason for such poor utilization is as follows:

- There is no centralized purchasing mechanism for equipment.
- Staff vacancies have not been filled leading to poor management of ITI's
- Too many bureaucratic formalities for purchasing and hence funds not properly utilized.
- Possible corruption because each principal is responsible for purchasing equipment rather than having a centralized purchasing mechanism.
- Scrap is not being sold and hence the ITI's are clogged with old and unused machines which is leading to lack of buying new machinery.
- Unattractive salaries and poor advertising to fill the vacant posts.

5. Recommendations, Scope and Strategy for Implementation

5.1 Recommendation & Scope

Trade Analysis:

The various trades were analysed and their performance was studied. Those trades which have very few takers across the state have been identified. These trades should either be discontinued or their intake has to be considerably reduced. The following table provides a snapshot of the analysis:

क्र0सं0	2012	एन0सी0वी0टी0			एस0सी0वी0टी0			योग				2011 एन0सी0वी0टी0			एस0सी0वी0टी0			योग					
	व्यवसाय का नाम	कुल क्षमता	कुल प्रवेशि	रिक्त सीटें	कुल क्षमता	कुल प्रवेशि	रिक्त सीटें	कुल क्षमता	कुल प्रवेशि	रिक्त सीटें	प्रतिशत प्रवेशित	कुल क्षमता	कुल प्रवेशि	रिक्त सीटें	कुल क्षमता	कुल प्रवेशि	रिक्त सीटें	कुल क्षमता	कुल प्रवेशि	रिक्त सीटें	प्रतिशत	Average Percentage (2011&2012)	ranking(lower to higher)
1	कम्प्यूटर एडेड इम्ब्राइड्री एण्ड निडिल वर्क (डब्लू)	0	0	0	483	170	313	483	170	313	35.20	0	0	0	483	115	368	483	115	368	23.81	**29.50**	1
2	ड्राफ्ट मैन सिविल (डब्लू)	21	16	5	42	14	28	63	30	33	47.62	63	36	27	42	6	36	105	42	63	40.00	**42.86**	2
1	ड्रेस मेकिंग	210	160	50	1483	690	793	1693	850	843	50.21	231	172	59	1491	608	883	1722	780	942	45.30	**47.73**	3
3	प्लास्टिक प्रोसेसिंग ओपरेटर	42	28	14	105	71	34	147	99	48	67.35	42	29	13	273	124	149	315	153	162	48.57	**54.55**	5
2	फेशन टेक्नालाजी (डब्लू)	252	216	36	1815	1032	783	2067	1248	819	60.38	273	208	65	1827	887	940	2100	1095	1005	52.14	**56.23**	4
4	इलैक्ट्रानिक मैकेनिक (डब्लू)	42	34	8	21	15	6	63	49	14	77.78	21	7	14	42	18	24	63	25	38	39.68	**58.73**	6
5	हेयर एण्ड स्किन केयर	357	287	70	1252	723	529	1609	1010	599	62.77	357	261	96	1281	660	621	1638	921	717	56.23	**59.47**	7
6	डाटा एन्ट्री ओपरेटर	0	0	0	273	189	84	273	189	84	69.23	0	0	0	294	158	136	294	158	136	53.74	**61.20**	8
7	मैकेनिक रिपेयर एण्ड मेन्टीनेन्स (टू व्हीलर)	0	0	0	189	121	68	189	121	68	64.02	0	0	0	189	113	76	189	113	76	59.79	**61.90**	9
9	नेटवर्कस टेकनीशियन	0	0	0	273	201	72	273	201	72	73.63	0	0	0	294	157	137	294	157	137	53.40	**63.14**	11
10	बाशुलिपि बग्रेजी	273	206	67	21	13	8	294	219	75	74.49	273	149	124	21	7	14	294	156	138	53.06	**63.78**	12

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As can be seen from this analysis the Computer aided embroidery and needle work trade has an average intake of 29.5%. This figure is very poor and something needs to be done to correct this.

ITI opening criteria:

We can open new ITI's but work should also be done with regards to increasing the number of seats in existing ITI's which have the capacity to expand.

1. In ITI's you have 3 shifts in which the units have to be run. But in reality only 2 or less shifts are being run. We can look into the possibility of increasing the number of shifts to 3 so that the working population per seat is reduced. So instead of making large scale investments in terms of land, building and equipment one can look at smaller incremental expenditures on the existing expenditure to improve on the paucity of seats. By increasing one more shift we can hope for a straight line

method increase of 33 % seats. This could be achieved by hiring just one more faculty per trade.

2. SCVT courses seem to have limited impact on the career and are not considered by the Govt. The best solution is to let SCVT candidates appear as private candidates for the NCVT conducted examinations and thus give them a chance to apply for better jobs or for the coveted government jobs.
3. In COE only one unit seems to be running in UP. We could push for a second unit to be run so that it would benefit the students and increase the capacity. It is possible to design the timetable in such a way as to maximize the number of students with few overlaps of lectures.
4. Increase the number of CTS and ATS seats so that maximum skilled workers pass out of ITI's as only an ITI certificate leads to a semi-skilled classification rather than skilled classification of labour.
5. The condition to have at least one degree holder as an instructor is a good one as only such people can instil professionalism in the students. But in the future a person with a Bachelor of vocational education can be considered instead of a B.E. or a diploma.

However looking at the geographical disparity one can look at opening new ITI's. We have developed a template to indicate where new ITI's must be opened based on a ranking created on multiple demographic factors.

District	**no. of ITI required based on 1 iti per lakh population**	**Shortfall of ITI's - if positive indicates excess - based on area**	**Shortfall based on population - positive indicates excess**	**Per GITI seat population - highest is rank 1**	**Per GITI and PITI seat population - highest gets rank 1**	**ITI opening rank - lower rank requires immeidiate opening of ITI**	**Rank to increase seats in existing iti's**
Balrampur, Uttar Pradesh, India	21	-5	-19	10332	8666	4	1
Unnao, Uttar Pradesh, India	31	-6	-27	5803	5326	8	2
Auraiya,	13	-3	-11	21442	10721	2	2

Uttar Pradesh, India							
Hardoi, Uttar Pradesh, India	40	-7	-34	5559	3874	1	4
Siddharth Nagar, Uttar Pradesh, India	25	-2	-21	9252	3869	11	4
Budaun, Uttar Pradesh, India	37	-2	-28	6314	3612	12	6
Maharajganj, Uttar Pradesh, India	26	-4	-23	6407	4899	10	7
Ramabai Nagar, Uttar Pradesh, India	17	-3	-13	18699	6233	4	8
Bahraich, Uttar Pradesh, India	34	-6	-29	4700	4007	9	9
Kannauj, Uttar Pradesh, India	16	-4	-15	7971	7971	3	9
Moradabad, Uttar Pradesh, India	47	12	-27	8230	1956	18	11
Kheri, Uttar Pradesh, India	40	-12	-36	4420	3448	7	12
Sitapur, Uttar Pradesh, India	44	-7	-39	4566	3379	6	12
Kushinagar, Uttar Pradesh, India	35	4	-25	4636	3168	15	14
Shahjahanpur	30	-5	-25	3507	2519	14	15

, Uttar Pradesh, India							
Barabanki, Uttar Pradesh, India	32	6	-17	5359	1794	22	15
Muzaffarnagar, Uttar Pradesh, India	41	16	-16	7779	1363	32	17
Pratapgarh, Uttar Pradesh, India	31	5	-18	3796	2248	20	18
Gonda, Uttar Pradesh, India	34	1	-24	3796	1744	21	19
Sant Kabir Nagar, Uttar Pradesh, India	17	6	-7	6593	1872	25	20
Shrawasti, Uttar Pradesh, India	11	-1	-8	4287	3440	29	21
Bijnor, Uttar Pradesh, India	36	3	-23	3289	1771	19	22
Rae Bareli, Uttar Pradesh, India	34	6	-18	3995	1550	28	23
Mainpuri, Uttar Pradesh, India	18	-4	-16	3079	3079	13	24
Firozabad, Uttar Pradesh, India	24	11	-8	7093	1458	26	24
Banda, Uttar Pradesh, India	17	-4	-11	3308	2295	16	26
Sant Ravidas	15	7	-5	8831	1331	33	27

Nagar, Uttar Pradesh, India							
Baghpat, Uttar Pradesh, India	13	8	-2	20346	1146	35	28
Kaushambi, Uttar Pradesh, India	15	4	-7	4990	1452	31	29
Kanshiram Nagar, Uttar Pradesh, India	14	6	-4	9987	1083	42	29
Ghaziabad, Uttar Pradesh, India	46	32	-11	12267	512	39	29
Pilibhit, Uttar Pradesh, India	20	-3	-15	2681	2294	24	32
Deoria, Uttar Pradesh, India	30	10	-14	2912	1753	36	33
Fatehpur, Uttar Pradesh, India	26	1	-16	2992	1397	37	34
Bareilly, Uttar Pradesh, India	44	13	-22	2390	1183	50	35
Chandauli, Uttar Pradesh, India	19	17	4	8717	739	44	35
Hamirpur, Uttar Pradesh, India	11	-5	-7	3067	1704	27	37
Lalitpur, Uttar Pradesh, India	12	-9	-10	2086	2086	17	38
Rampur,	23	4	-14	2115	1578	43	38

Uttar Pradesh, India							
Basti, Uttar Pradesh, India	24	4	-14	2822	1202	40	38
Etawah, Uttar Pradesh, India	15	-1	-11	1935	1732	29	41
Mahamaya Nagar, Uttar Pradesh, India	15	9	-2	4893	874	48	41
Mau, Uttar Pradesh, India	22	22	4	4922	881	41	41
Chitrakoot, Uttar Pradesh, India	9	-1	-3	3347	1353	34	44
Sonbhadra, Uttar Pradesh, India	18	9	5	11641	448	47	44
Farrukhabad, Uttar Pradesh, India	18	4	-9	2681	1396	38	44
Jalaun, Uttar Pradesh, India	16	-5	-11	1816	1644	23	47
Ambedkar Nagar, Uttar Pradesh, India	23	31	13	6182	805	49	48
Aligarh, Uttar Pradesh, India	36	24	-4	2775	902	51	49
Jyotiba Phule Nagar, Uttar Pradesh, India	18	10	-3	3355	672	55	50
Azamgarh, Uttar Pradesh,	46	43	6	3405	698	53	51

India							
Kanpur Nagar, Uttar Pradesh, India	45	31	-7	1850	879	52	52
Jhansi, Uttar Pradesh, India	20	1	-8	1463	830	45	53
Mahoba, Uttar Pradesh, India	8	-3	-4	1129	1084	46	54
Agra, Uttar Pradesh, India	43	50	16	3094	799	56	55
Sultanpur, Uttar Pradesh, India	37	43	16	4033	480	61	55
Saharanpur, Uttar Pradesh, India	34	30	4	2868	680	57	57
Gorakhpur, Uttar Pradesh, India	44	38	1	2550	778	59	57
Etah, Uttar Pradesh, India	17	16	5	3079	601	65	57
Ballia, Uttar Pradesh, India	32	33	8	3041	729	60	60
Faizabad, Uttar Pradesh, India	24	58	39	3673	481	68	61
Meerut, Uttar Pradesh, India	34	21	-7	1792	529	64	62
Allahabad, Uttar Pradesh, India	59	79	32	3304	544	54	63
Jaunpur,	44	79	44	4207	299	67	64

Uttar Pradesh, India							
Ghazipur, Uttar Pradesh, India	36	80	51	3990	421	66	64
Bulandshahar, Uttar Pradesh, India	34	31	7	2176	692	63	66
Lucknow, Uttar Pradesh, India	45	49	10	2063	667	58	67
Mathura, Uttar Pradesh, India	25	65	47	3276	338	71	67
Mirzapur, Uttar Pradesh, India	24	28	14	2609	327	70	69
Gautam Buddha Nagar, Uttar Pradesh, India	16	20	7	1861	388	62	70
Varanasi, Uttar Pradesh, India	36	60	28	2404	376	69	71

A method is proposed to increase the number of seats from the current 45000 to 80000 as follows:

The idea is : Target - double the seats for the top 20 ranks under the seat increase category, 1.5 times in the top 45 and 1.25 times in the top 60 - Target 80000 seats across UP. We propose such a methodology keeping in mind the existing infrastructure of each district. We have given only a basic guideline. Another practical implementation could be to focus on the top 20 ranked districts in the current year as they need urgent improvement. Then in the coming years focus on the next few ranked districts in bands of 20 ranks each year. For a look at which schemes to depend on in each district while opening ITI's please have a look at the appendix.

District	ITI opening rank - lower rank requires immeidiate opening of ITI	Rank to increase seats in existing iti's	Existing number of GITI seats	Existing number of GITI and PITI seats	Target - double the seats in the top 20, 1.5 times in the top 45 and 1.25 times in the top 60 - Target 80000 seats across UP	Difference in seats - Number of seats to be created	New ITI'S to be opened	Year 1 seat creation(GITI) (50% of shortfall)	Year 2 seat creation (25 % of shortfall)	Year 3 seat creation (12.5 % of shortfall)	Year 4 seat creation(Remaining)
Balrampur, Uttar Pradesh, India	4	1	208	247	416	208	1	104	52	26	26
Auraiya, Uttar Pradesh, India	8	2	536	584	1072	536	4	268	134	67	67
Unnao, Uttar Pradesh, India	2	2	63	127	126	63	1	31	15	7	10
Siddharth Nagar, Uttar Pradesh, India	1	4	735	1056	1470	735	4	367	183	91	94
Hardoi, Uttar Pradesh, India	11	4	275	659	550	275	2	137	68	34	36
Budaun, Uttar Pradesh, India	12	6	588	1027	1176	588	5	294	147	73	74
Maharajganj, Uttar Pradesh, India	10	7	415	544	830	415	2	207	103	51	54
Ramabai Nagar, Uttar Pradesh, India	4	8	95	287	190	95	2	47	23	11	14
Kannauj, Uttar Pradesh,	9	9	740	868	1480	740	5	370	185	92	93

India											
Bahraich, Uttar Pradesh, India	3	9	208	208	416	208	1	104	52	26	26
Moradabad, Uttar Pradesh, India	18	11	579	2440	1158	579	7	289	144	72	74
Sitapur, Uttar Pradesh, India	7	12	908	1164	1816	908	4	454	227	113	114
Kheri, Uttar Pradesh, India	6	12	979	1324	1958	979	4	489	244	122	124
Kushinagar, Uttar Pradesh, India	15	14	768	1123	1536	768	4	384	192	96	96
Barabanki, Uttar Pradesh, India	14	15	856	1191	1712	856	4	428	214	107	107
Shahjahanpur, Uttar Pradesh, India	22	15	607	1816	1214	607	4	303	151	75	78
Muzaffarnagar, Uttar Pradesh, India	32	17	532	3036	1064	532	4	266	133	66	67
Pratapgarh, Uttar Pradesh, India	20	18	836	1411	1254	418	2	209	104	52	53
Gonda, Uttar Pradesh, India	21	19	903	1967	1806	903	3	451	225	112	115
Sant Kabir Nagar,	25	20	260	915	390	130	1	65	32	16	17

Uttar Pradesh, India											
Shrawasti, Uttar Pradesh, India	29	21	259	324	389	130	1	65	32	16	17
Bijnor, Uttar Pradesh, India	19	22	1120	2080	1680	560	2	280	140	70	70
Rae Bareli, Uttar Pradesh, India	28	23	852	2196	1704	852	2	426	213	106	107
Firozabad, Uttar Pradesh, India	13	24	599	599	749	150	0	75	37	18	20
Mainpuri, Uttar Pradesh, India	26	24	352	1712	528	176	1	88	44	22	22
Banda, Uttar Pradesh, India	16	26	543	784	1086	543	4	271	135	67	70
Sant Ravidas Nagar, Uttar Pradesh, India	33	27	175	1167	263	88	1	44	22	11	11
Baghpat, Uttar Pradesh, India	35	28	64	1136	96	32	0	16	8	4	4
Ghaziabad, Uttar Pradesh, India	31	29	320	1099	480	160	0	80	40	20	20
Kanshiram Nagar, Uttar	42	29	144	1327	216	72	1	36	18	9	9

Pradesh, India											
Kausambi, Uttar Pradesh, India	39	29	379	9104	569	190	2	95	47	23	25
Pilibhit, Uttar Pradesh, India	24	32	759	888	1518	759	4	379	189	94	97
Deoria, Uttar Pradesh, India	36	33	1064	1767	1330	266	1	133	66	33	34
Fatehpur, Uttar Pradesh, India	37	34	879	1884	1319	440	2	220	110	55	55
Chandauli, Uttar Pradesh, India	50	35	1868	3774	2802	934	3	467	233	116	118
Bareilly, Uttar Pradesh, India	44	35	224	2642	336	112	0	56	28	14	14
Hamirpur, Uttar Pradesh, India	27	37	359	647	539	180	1	90	45	22	23
Basti, Uttar Pradesh, India	17	38	583	583	1166	583	3	291	145	72	75
Rampur, Uttar Pradesh, India	43	38	1104	1479	1380	276	1	138	69	34	35
Lalitpur, Uttar Pradesh, India	40	38	872	2047	1308	436	1	218	109	54	55
Mau, Uttar Pradesh,	29	41	816	911	816	0	0	0	0	0	0

India											
Mahamaya Nagar, Uttar Pradesh, India	48	41	319	1791	399	80	0	40	20	10	10
Etawah, Uttar Pradesh, India	41	41	448	2503	560	112	0	56	28	14	14
Sonbhadra, Uttar Pradesh, India	34	44	295	732	443	148	1	74	37	18	19
Chitrakoot, Uttar Pradesh, India	47	44	160	4157	320	160	2	80	40	20	20
Farrukhabad, Uttar Pradesh, India	38	44	704	1352	880	176	0	88	44	22	22
Jalaun, Uttar Pradesh, India	23	47	919	1016	1149	230	1	115	57	28	30
Ambedkar Nagar, Uttar Pradesh, India	49	48	388	2979	485	97	1	48	24	12	13
Aligarh, Uttar Pradesh, India	51	49	1323	4073	1985	662	2	331	165	82	84
Jyotiba Phule Nagar, Uttar Pradesh, India	55	50	548	2736	685	137	0	68	34	17	18
Azamgarh, Uttar Pradesh, India	53	51	1355	6613	2033	678	2	339	169	84	86

Kanpur Nagar, Uttar Pradesh, India	52	52	2471	5202	2471	0	0	0	0	0	0
Jhansi, Uttar Pradesh, India	45	53	1367	2410	1367	0	1	0	0	0	0
Mahoba, Uttar Pradesh, India	46	54	775	808	969	194	1	97	48	24	25
Sultanpur, Uttar Pradesh, India	56	55	1415	5482	2123	708	2	354	177	88	89
Agra, Uttar Pradesh, India	61	55	939	7897	1174	235	2	117	58	29	31
Etah, Uttar Pradesh, India	57	57	1207	5094	1509	302	1	151	75	37	39
Gorakhpur, Uttar Pradesh, India	59	57	1739	5702	1739	0	0	0	0	0	0
Saharanpur, Uttar Pradesh, India	65	57	571	2930	571	0	0	0	0	0	0
Ballia, Uttar Pradesh, India	60	60	1060	4422	1060	0	0	0	0	0	0
Faizabad, Uttar Pradesh, India	68	61	672	5131	840	168	0	84	42	21	21
Meerut, Uttar Pradesh, India	64	62	1923	6516	1923	0	0	0	0	0	0

Allahabad, Uttar Pradesh, India	54	63	1803	10955	2705	902	2	451	225	112	114
Jaunpur, Uttar Pradesh, India	67	64	1063	14970	1595	532	2	266	133	66	67
Ghazipur, Uttar Pradesh, India	66	64	907	8605	1361	454	1	227	113	56	58
Bulandshahar, Uttar Pradesh, India	63	66	1607	5055	1607	0	0	0	0	0	0
Mathura, Uttar Pradesh, India	58	67	2224	6879	2224	0	0	0	0	0	0
Lucknow, Uttar Pradesh, India	71	67	775	7520	969	194	1	97	48	24	25
Mirzapur, Uttar Pradesh, India	70	69	956	7628	1195	239	0	119	59	29	32
Gautam Buddha Nagar, Uttar Pradesh, India	62	70	899	4316	899	0	0	0	0	0	0

Implementation of centralized purchasing system:

- Gather requirement from every ITI for equipment and raw materials every 6 months or one year. You can simplify this process by creating a portal where each ITI can send in its requirements for that time period. This can be done through simple online form filling or through email if a portal does not exist.
- The requirements sent in by the ITI's must first be approved by a committee. The structure and powers of the committee are explained further down. Only approved

items can be collated into the total requirement for that particular zone (explained below).

- Divide the state into zones consisting of 3 districts each which are located nearby. Identify prospective vendors for each zone for each of the trades concerned for which the raw material will be required. We suggest the zonal scheme only for items that are of a lower cost as transport costs would nullify the savings that can be made if we had a centralized scheme. A centralized scheme can be implemented for more expensive equipment and raw material and is stated below.
- This identification of vendors can be done through advertising and ensuring that the vendors that qualify to the next stage have the necessary minimum experience and can deliver the required quantity and quality. They should have been in business for a minimum number of years, should have a turnover of minimum amount and must have successfully executed orders of certain size. These parameters can be decided by a committee as described below. These selected vendors from each district are the only ones eligible for sending in tenders every 6 months i.e. they form a pre-selected group of vendors for that particular group of equipment or raw materials. After every 2 years this prospective set of vendors should be updated by allowing newer vendors who can meet the minimum requirements. This method would require advertising every 2 years for inviting vendors. Problem with this alternative could be the creation of a bias for this pre-selected group of vendors or even carteling and lobbying by this group of vendors.
- Another alternative to the above is to do tendering once every 2 years and have all prospective vendors apply for the tendering process i.e. there will be no concept of pre-selected group of vendors for each related group of equipment or trades. All prospective vendors can send in sealed tenders but only those that meet the requirements as mentioned above will be eligible for final round. But this would mean that the same vendor should be given the tender for the whole 2 years. In the above alternative you could change the vendor every 6 months by selecting another vendor from the pre-selected group of vendors but in this alternative you will be stuck with this vendor for the whole two years.
- Then invite tenders electronically for equipment only from the qualified vendors from each of the zones. Automatic lowest price discovery is possible through this route for equipment.
- You can create a tender portal or if no portal exists invite tenders to the principal secretaries email id with a copy sent to every member in the committee to avoid any misappropriation by a single person.
- To oversee the tender and fund release process create a committee consisting of 2 IAS officers, 2 randomly selected principals, 2 randomly selected DDO's, 2 retired bureaucrats and 2 officers from the directorate. The random selection of principals and DDO's will be at the discretion of the IAS officers. Apart from the 2 IAS officers the Principal Secretary will be the chairman of the committee and he will resolve any ties. The officers of the directorate can be changed every 2 years and the

retired bureaucrats every 2 years. The IAS officers will have to be changed every 3 years. The principals and DDO's can be selected every 6 months and their positions should be kept secret. In case of any disputes in the committee a voting shall be undertaken and a simple majority will ensure a motion is passed. Every person on the committee should have equal voting power.

Note: Every committee must have odd number of people to resolve ties. Also the 2 retired bureaucrats have been added because they would bring in their experience and an outside perspective. Their services will not be free and their appointment mechanism will be through the government. Time and cost benefit analysis could be undertaken to decide whether the two bureaucrats need to be included. It is left to the discretion of the principal secretary to decide on this matter.

- This committee can award contracts based on the tenders received and release funds electronically directly to the bank accounts of the vendors. No physical transfer of cash will be allowed. Only electronic transfers with well documented proof will be allowed so that the process remains transparent. This is done so that no middle men are involved and there is accountability.
- The funds should be released at various stages of completion – not at one go. For example the party that wins the contract can get a 10% down payment of the total contract worth. The next 40 % can be paid on milestone based delivery and the remaining 50% can be paid on completion and successful delivery. Proof of successful delivery to be given by principals of ITI's on receipt of equipment at the respective ITI's.
- If the equipment is very expensive then we can have a centralized process instead of having a zonal process. So the vendors have to be identified at the state level and the requirements have to be gathered from all ITI's across the states. Then tenders should be released based on the requirement of the entire state. This process will ensure savings for the government due to economies of scale. A minimum slab must be identified beyond which any item will be bought through the state scheme and not the zonal scheme. For now we are assuming that expensive equipment is anything that costs more than 25000 Rs per unit.
- Once every 2 years a study can be conducted to verify whether the cost incurred due to tender process is rational. This can be done by taking random equipment across all trades and finding out the cost in each district and then arriving at a benchmark maximum price and comparing this price with the price paid in the tender process. This can be carried out once in 2 years to benchmark the tender process.
- A different committee consisting of 1 IAS officer, 1 randomly selected DDO, 1 randomly selected principal, 1 retired bureaucrat and 1 member from the directorate can be formed. Their job is to see whether the tender prices are rational after seeing the data available from the maximum price discovery mechanism and if anything illegal is happening in the functioning of the tender

handling committee, as it is a centralized process with too much power in the hands of one committee. They should have the authority to suggest and implement their findings and action plans on the tender handling committee.

- In case, forming another committee is too much of a hassle this function can be outsourced to any government audit agency or to the CAG who can then look into the matter.

To reduce malpractices in examinations:

There is a lot of cheating taking place in exam centres. Because the exams are not strict students do not work hard, have poor attendance and do not learn much. To end all these malpractices a stronger examination system is a must.

Suggestions:

- The exam centres must be allocated by the centre. District wise allocation leads to a lot of corruption and malpractices go unchecked.
- The examination centres should not be ITI's. The invigilators should not include persons from the ITI system.
- Conduct the exams in polytechnics and governmental inter colleges. The invigilators can be from these institutes as well.
- Also provide better invigilation fees to the invigilators so that they have an incentive to curb malpractices. Currently only Rs 100 is paid to an invigilator for his services. This needs to be increased.
- Have surprise inspections at random exam centres all over the state to ensure that malpractices are reduced.
- Please refer to the appendix for a list of polytechnics and their seating capacity which can be used during examinations.

5.2 Flowchart (Strategy) for implementation

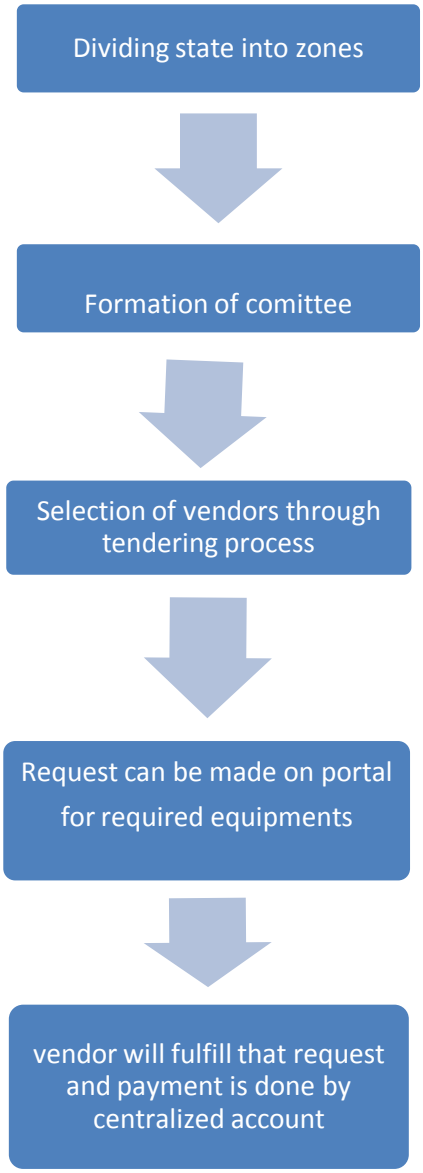
1) Recommendation:Implementation of centralized purchasing system

Scope:

Centralized purchasing can be done for heavy equipments as these equipments are not needed frequently. For small equipments and raw materials E-procurement procedure can be implemented. For E-procurement process, a portal and committee must be formed. Committee will work on assigning tenders to vendors in a different zones, as zones can be formed consisting of two or three districts. Committee will consist of 1 IAS officer, 1 randomly selected DDO, 1 randomly

selected principal, 1 retired bureaucrat and 1 member from the directorate can be formed.

Flowchart:

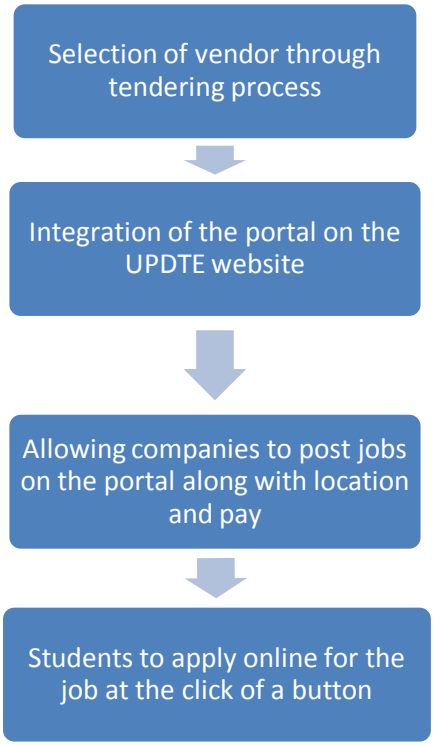


2) Recommendation: Formation of placement Portal

Scope:

This placement portal will be useful for students as well as the companies. As students will come to know what jobs are available, as very few districts have most of the industries, so it is becomes difficult for the student outside those districts to find the job or find the company for apprenticeship. Besides, it will be beneficial for the companies as well, as they can post their jobs online and they can carry out recruitment for their different divisions.

Flowchart:



6. Future Work:

- Data collection from various ITI's

Data collection form consists of from basic information such as physical information like land, buildings to financial information and it also consists of industry linkage if ITI has any. This data will provide list of unserviceable equipments in each ITI, so that they can be replaced and it will also provide the staff details and any vacancies they have. The financial data will reveal how much expenses have occurred and how funds have to be allocated in the future

7. Conclusion

The ITI system has been neglected for a very long time in the state of UP due to a lack of funds and poor industrialization in UP.

The implementation of centralized purchasing system would to a great extent spruce up the quality of infrastructure in ITI's in UP

Due to poor job opportunities there is an urgent need for a placement portal that will be available to students across UP and will enable companies to choose from a wider pool of talent

The instructors need to be up to date with the latest technology as the students are not learning much from instructors with outdated knowledge.

8. References

[1] The Apprentices Act, 1961, Universal Law Publishing (2010)

[2] Financial Report, 2012-2013, Vocational Education Department, DGET Lucknow (2013)

[3] Alia Ali, Vikas Gothalwal, Rajeev Kapoor, Policy for skill development in U.P. , DGET Lucknow (2013)

[4] www.dget.nic.in

[5] www.updte.org

9. Appendix A

Meetings and Interviews

Date: 3-4-13

Time: 10:30 AM

Duration of Discussion: 120 minutes

Discussion:

- We have to design four year plan for upgrading existing ITI system in Uttar Pradesh.
- To identify locations for new ITI's and also to determine a funding pattern for them.

- To improve on the geographical disparity as location of ITI is skewed in favor of larger districts.
- Developing a Management information System to gather data from existing ITI's as no data collection system exists currently.
- To remove course disparities as some courses have clashing curriculum.
- To explore the possibilities of opening hostels in existing ITI's

Action Items before next discussion:

- Creating a template for management information system (Week 2)
- A field visit to existing ITI at Aliganj, Lucknow (Week 3)
- Gathering Data from existing ITIs (Week 3- 5)

Date: 15-4-13

Time: 10:30 AM

Duration of Discussion: 90 minutes

Discussion:

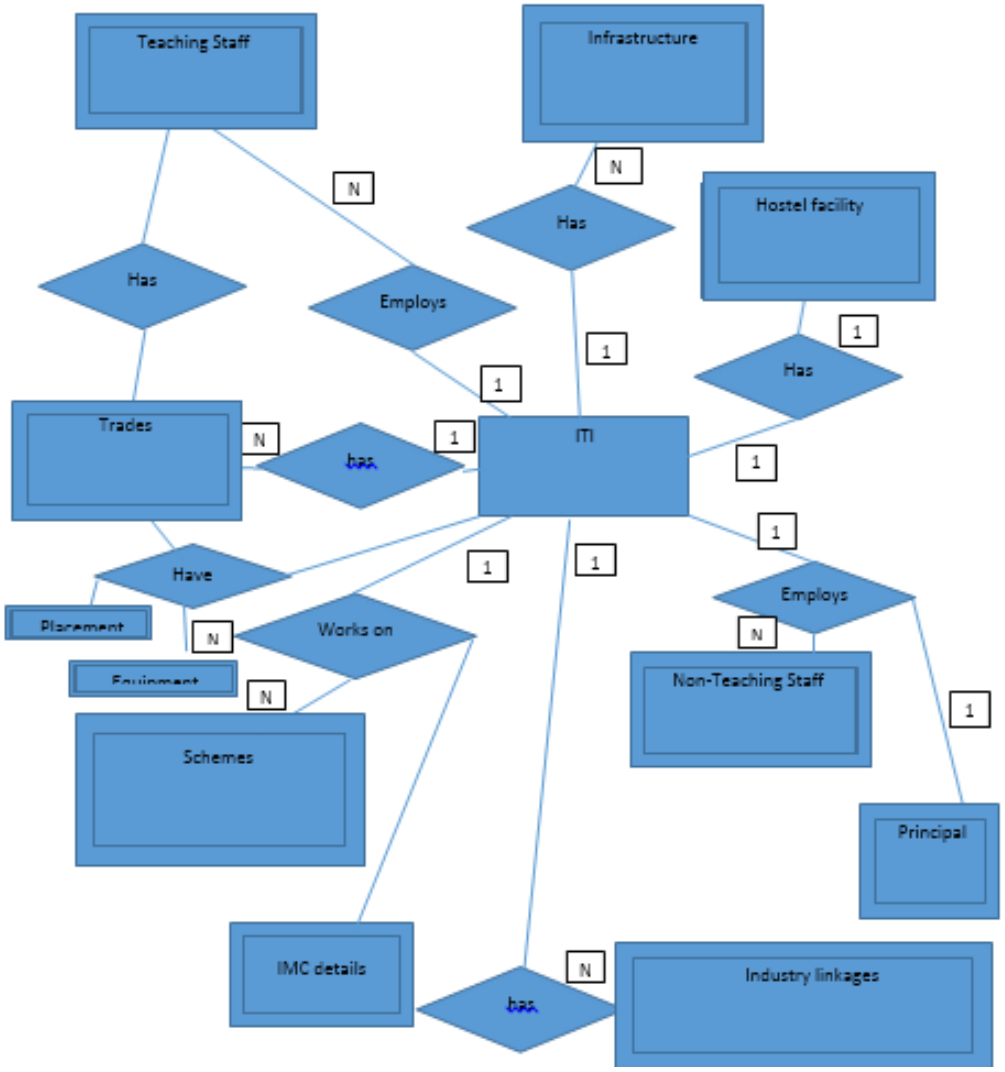
- Developed an MIS and modified according to his expectations
- To do thorough analysis to design a policy as where to open new ITI as there is geographical disparity in ITI system
- To study the funding pattern and to find the new ways in which the ITI could be funded
- To study the trade pattern and find out the popularity of the trades and based on this, trades could be merged together or discontinued.
- Analysis of curriculum of these trades to be done to match it with the market expectation

Action Items before next discussion:

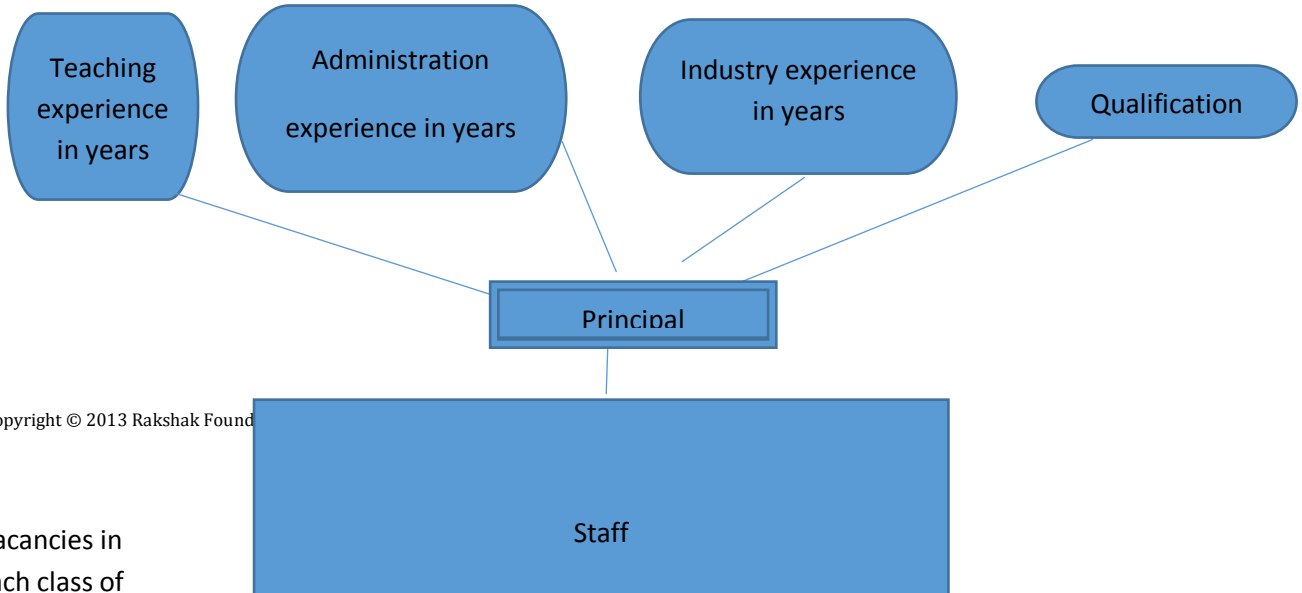
- Formation of policy to open new ITI's (Week 3)
- Finding out new ways to fund ITI's (Week 4)
- Gathering Data from existing ITI's (Week 3- 5)

Appendix B

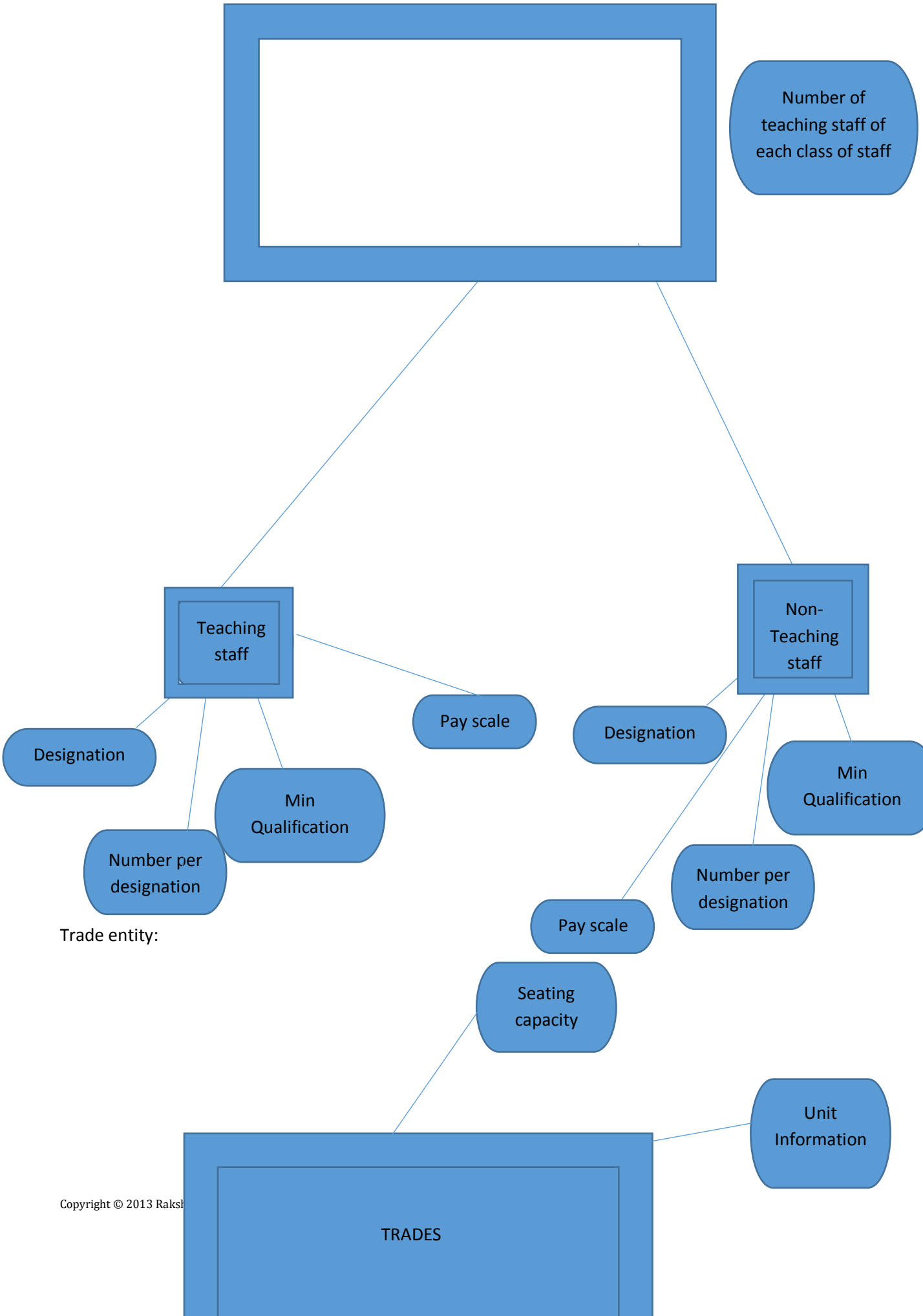
ER diagram depicting the entities and relationships in the ITI Model:



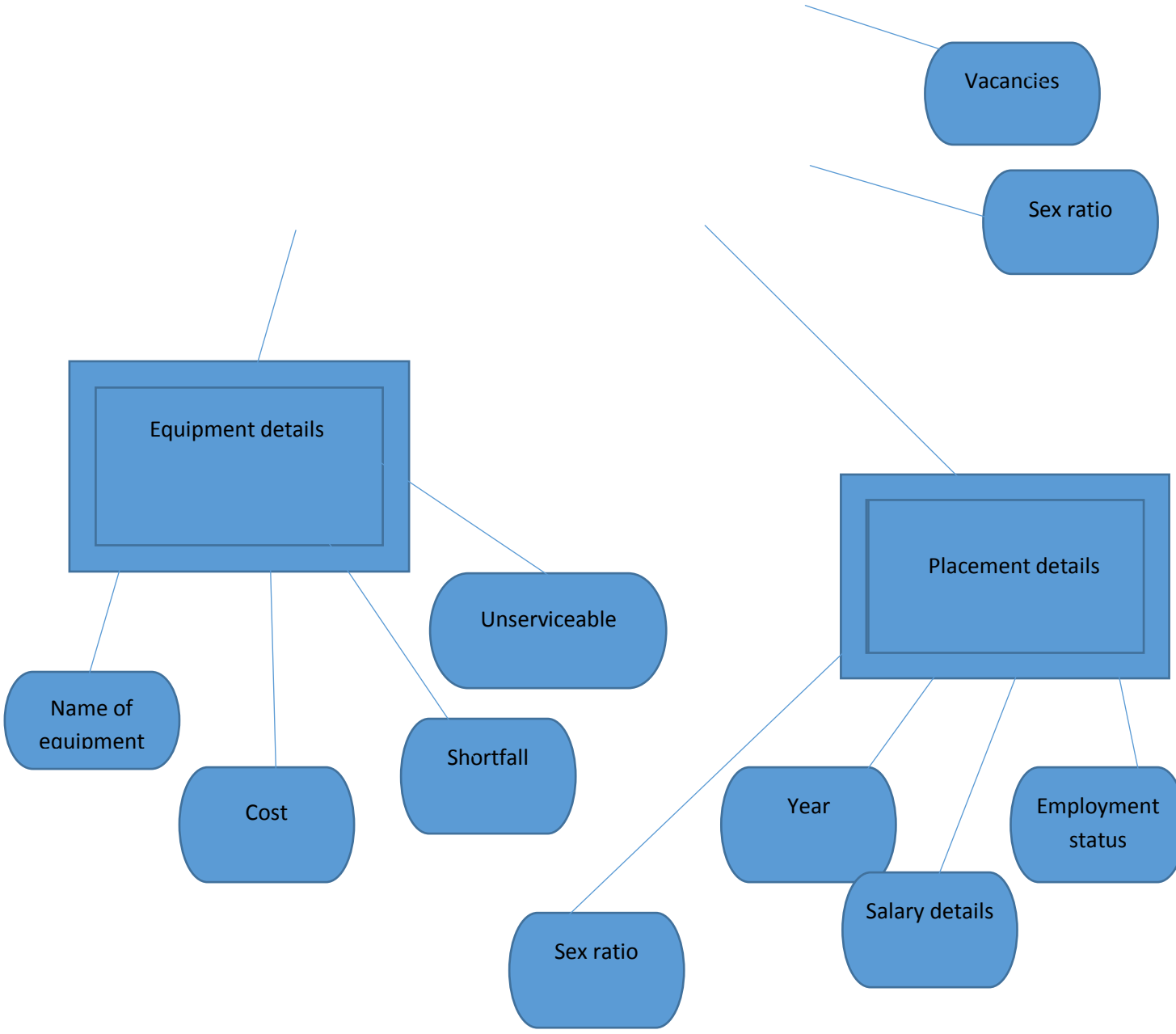
Staff entity:



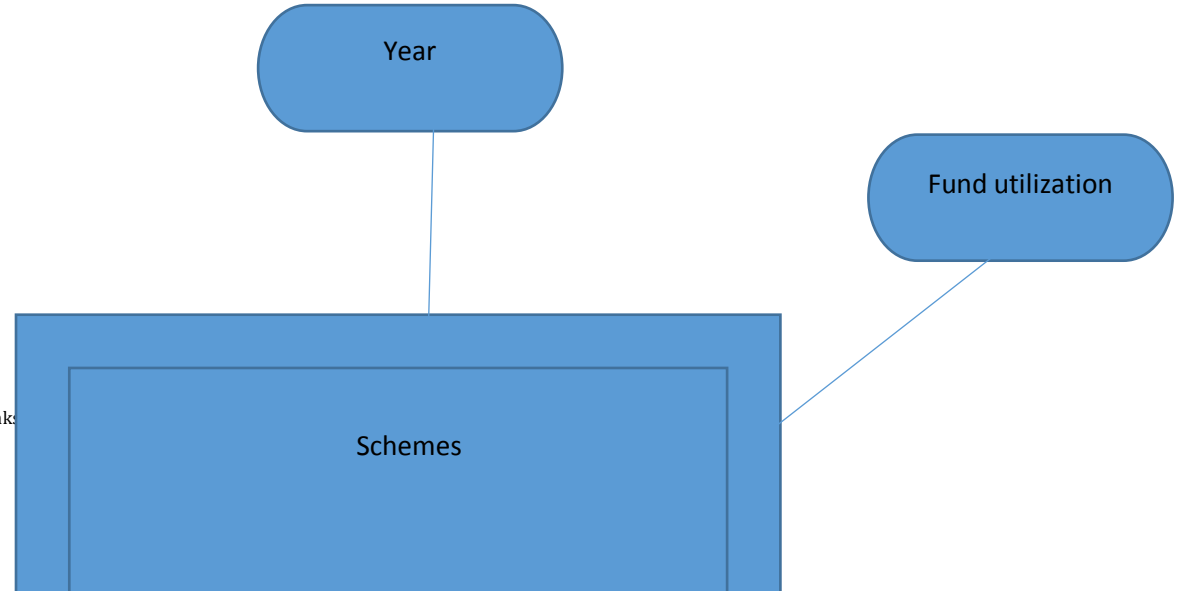
Vacancies in each class of

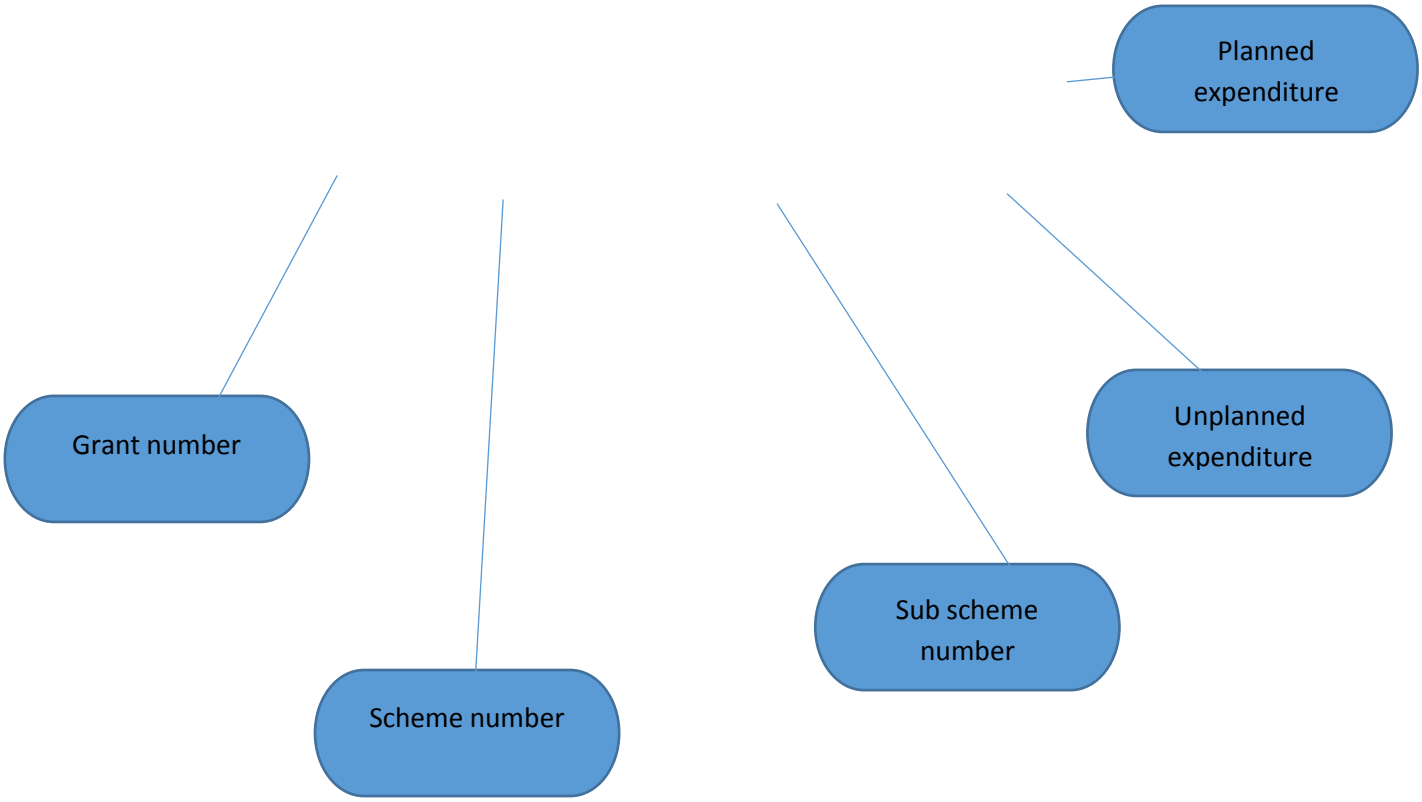


Trade entity:

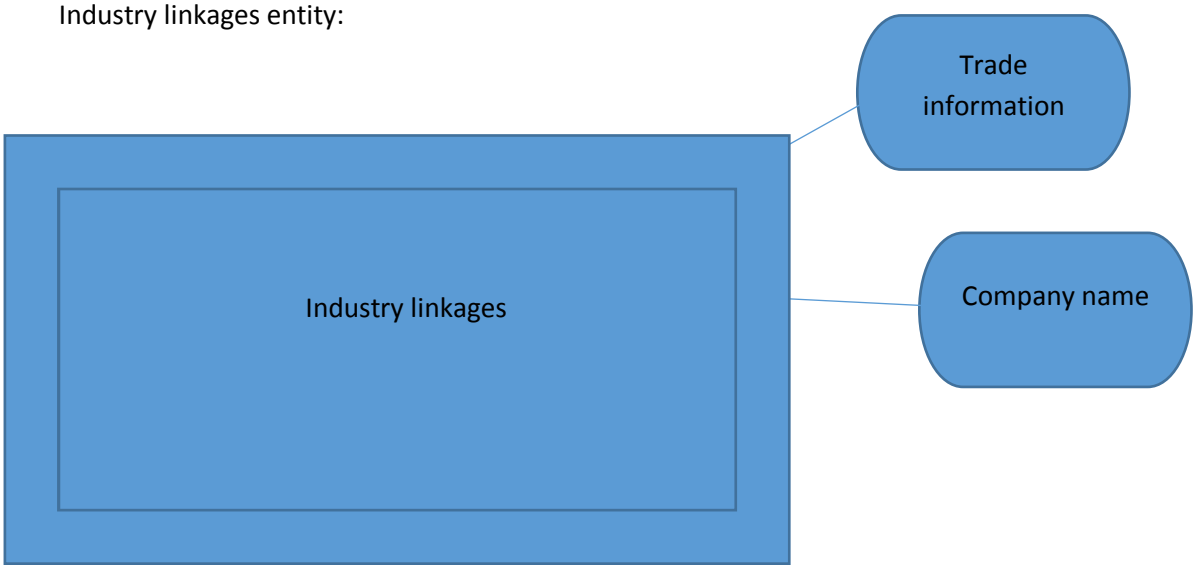


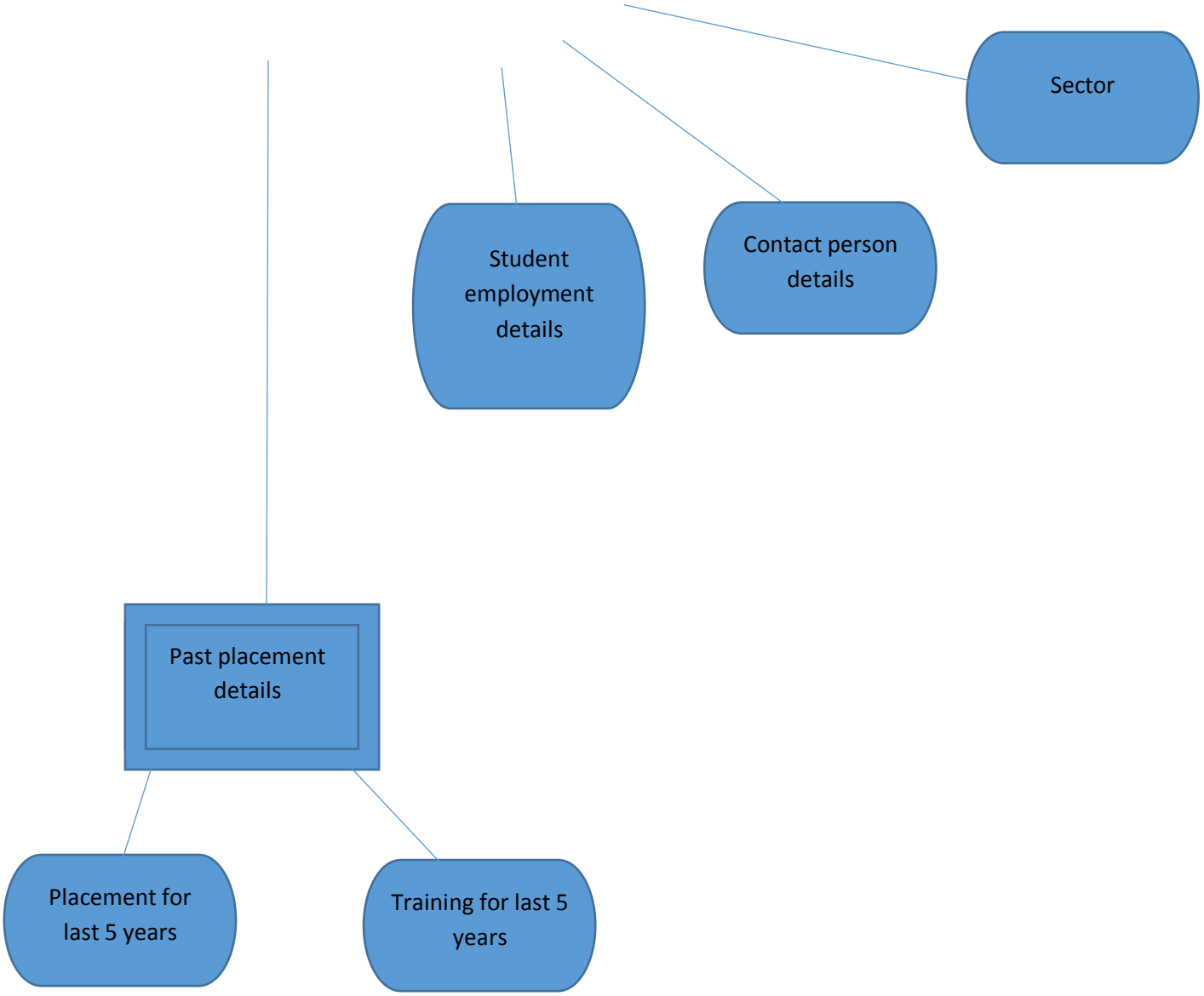
Fund entity:



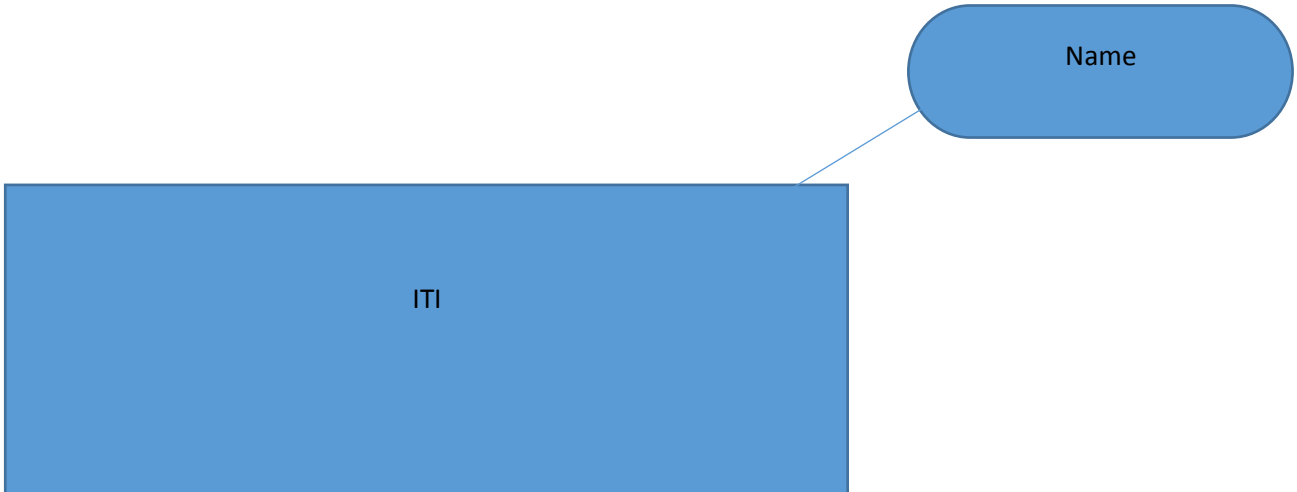


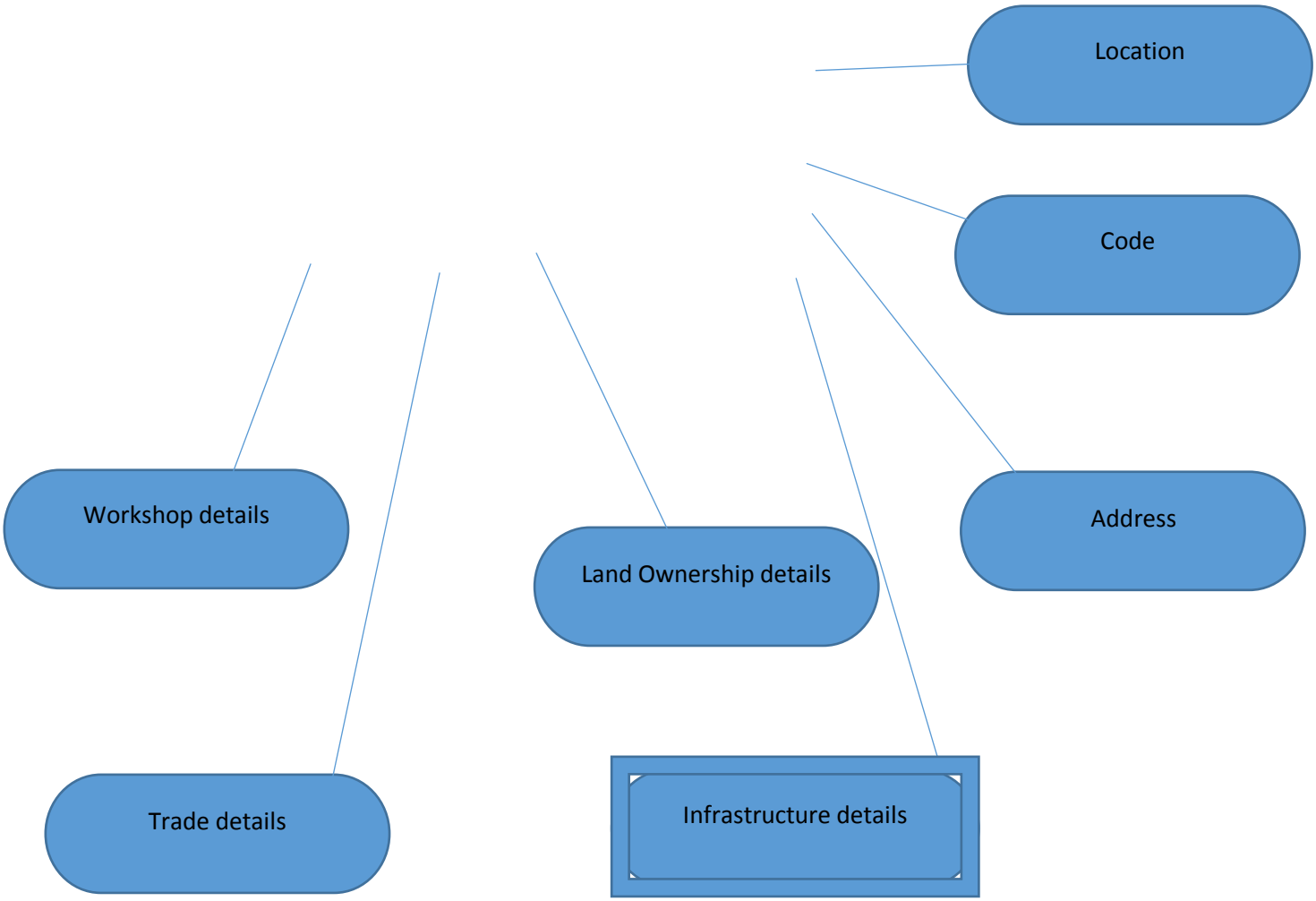
Industry linkages entity:



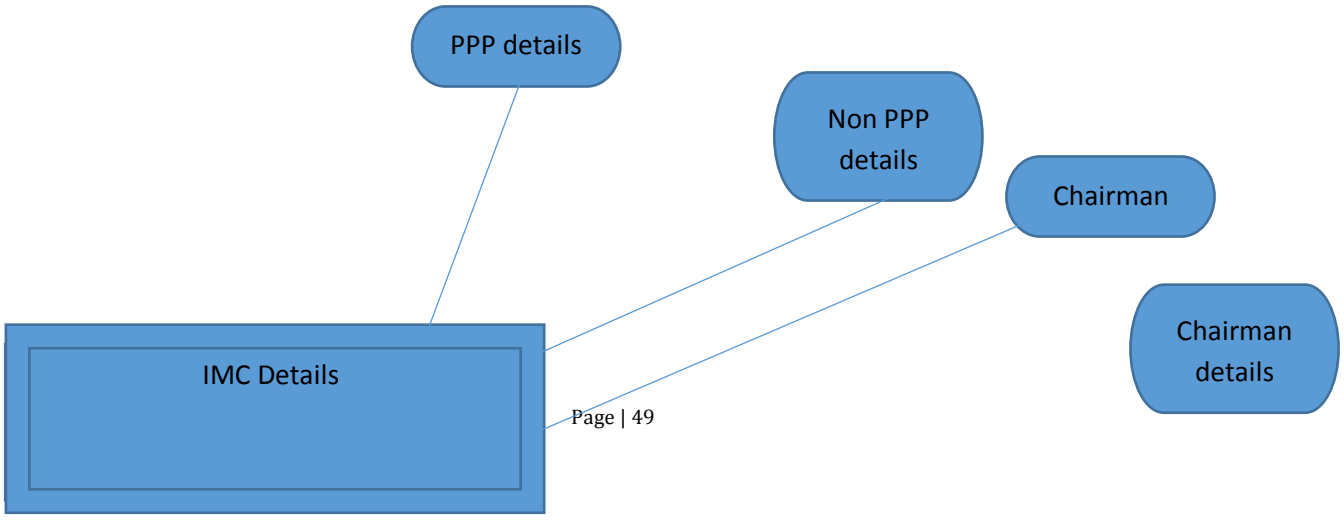

Sector
Student employment details
Contact person details
Past placement details
Placement for last 5 years
Training for last 5 years

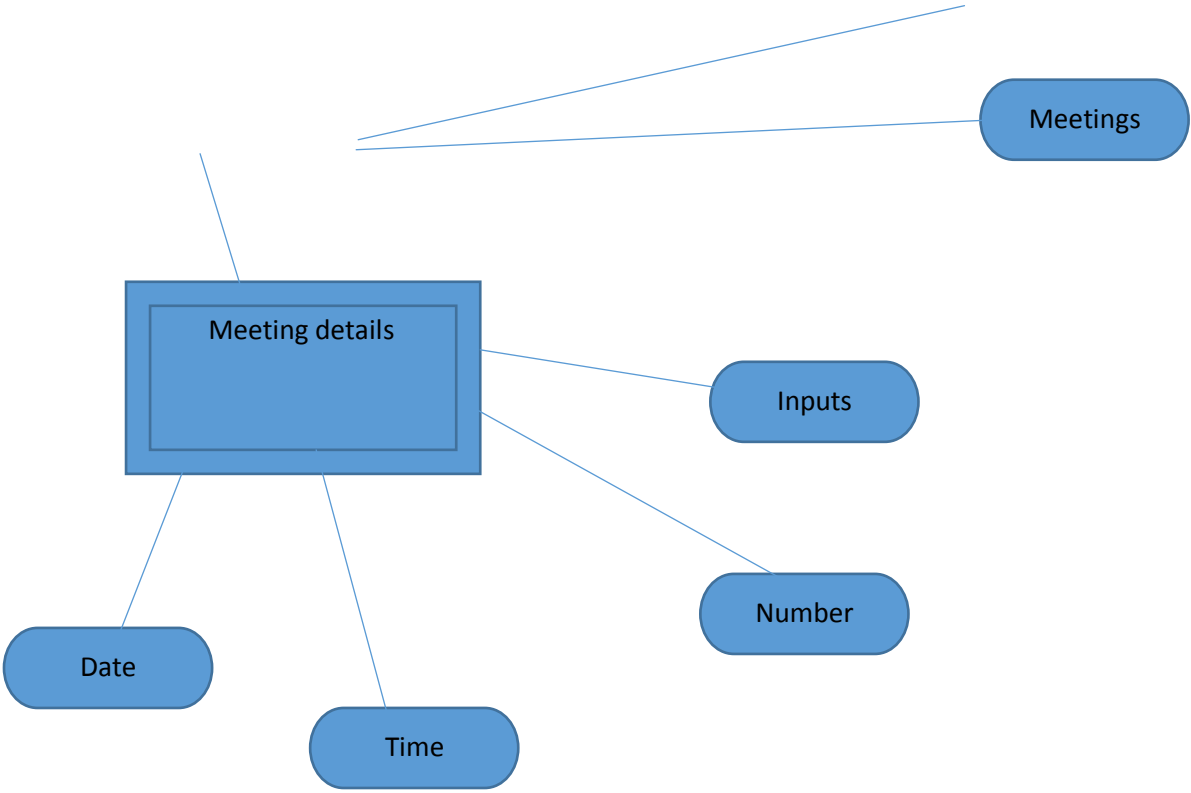
ITI Entity:


Name
ITI

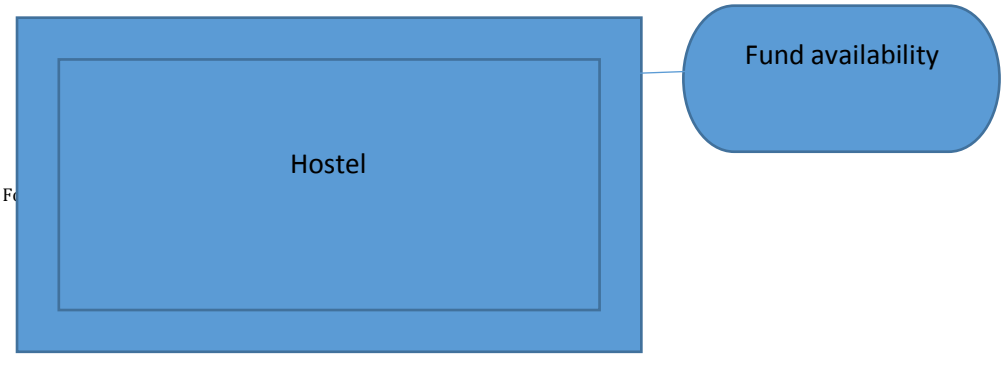

Location
Code
Address
Land Ownership details
Infrastructure details
Workshop details
Trade details

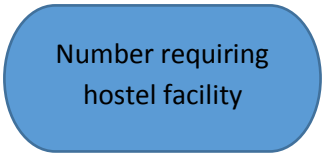
IMC entity:


PPP details
Non PPP details
Chairman
Chairman details
IMC Details

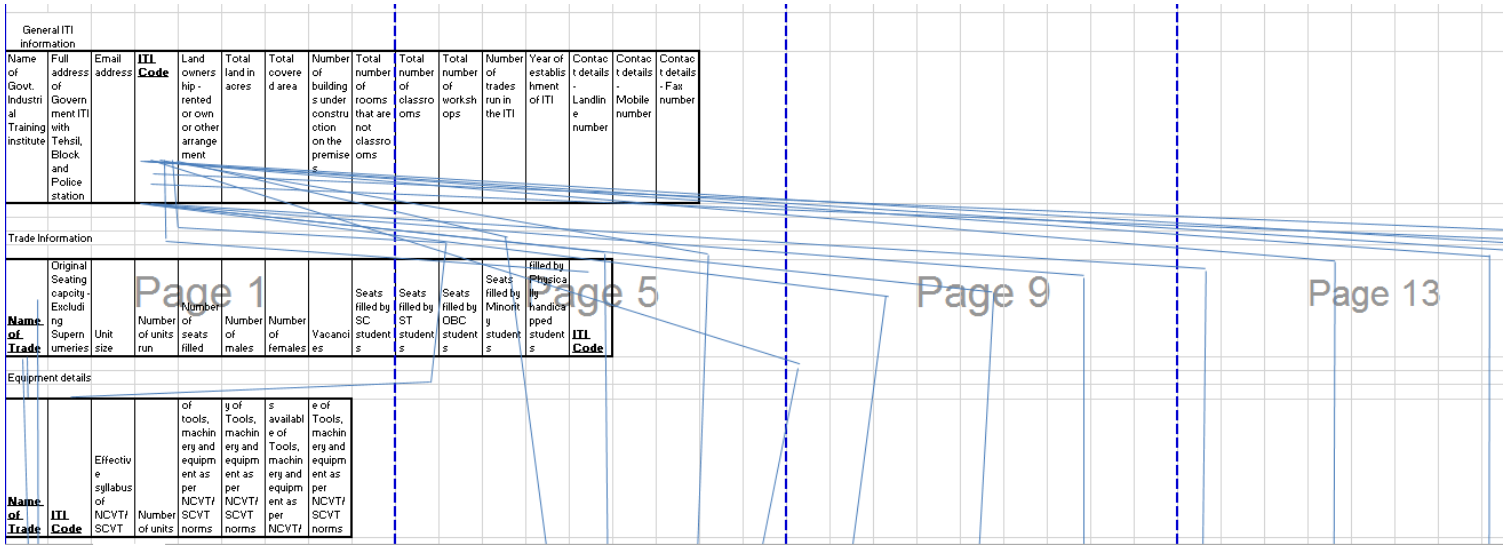


Hostel entity along with its attributes:





Snapshot of a part of the final schema developed from the ER diagram:



General ITI information

Name of Govt. Industrial Training institute	Full address of Government ITI with Tehsil, Block and Police station	Email address	**ITI Code**	Land ownership - rented or own or other arrangement	Total land in acres	Total covered area	Number of building s under construction on the premises	Total number of rooms that are not classrooms	Total number of classrooms	Total number of workshops	Number of trades run in the ITI	Year of establishment of ITI	Contact details - Landline number	Contact details - Mobile number	Contact details - Fax number

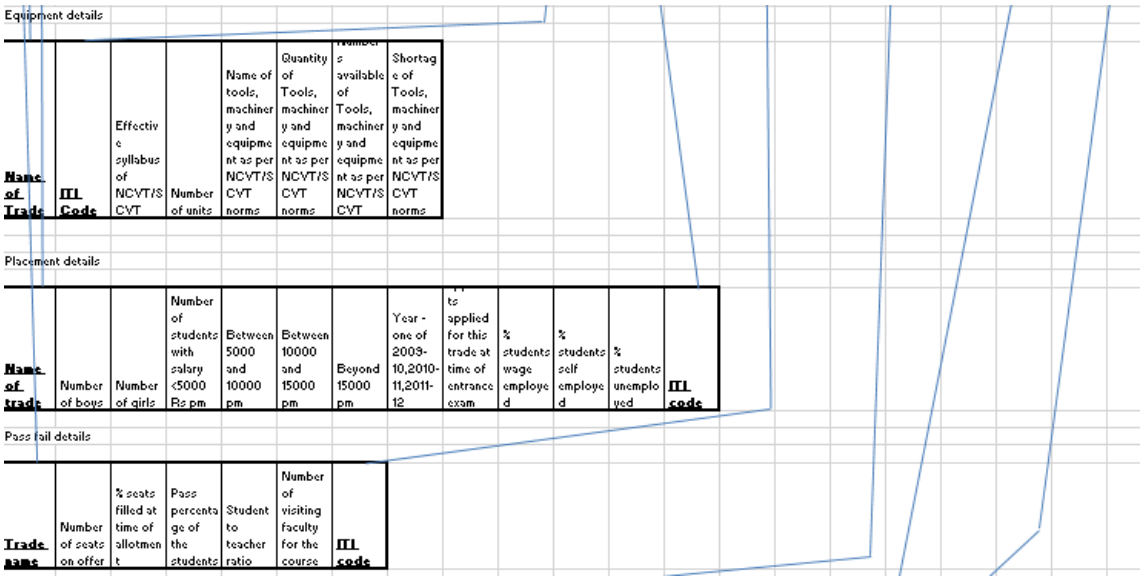
Trade Information

Name of Trade	Original Seating capcity - Excluding Supernumeries	Unit size	Number of units run	Number of seats filled	Number of males	Number of females	Vacancies	Seats filled by SC students	Seats filled by ST students	Seats filled by OBC students	Seats filled by Minority students	Seats filled by Physically handicapped students	**ITI Code**

Equipment details

Name of Trade	**ITI Code**	Effective syllabus of NCVT/SCVT	Number of units	of tools, machinery and equipment as per NCVT/SCVT norms	y of Tools, machinery and equipment as per NCVT/SCVT norms	s available of Tools, machinery and equipment as per NCVT/	e of Tools, machinery and equipment as per NCVT/SCVT norms

Page 1 Page 5 Page 9 Page 13



Equipment details

Name of Trade	**ITI Code**	Effective syllabus of NCVT/SCVT	Number of units	Name of tools, machinery and equipment as per NCVT/SCVT norms	Quantity of Tools, machinery and equipment as per NCVT/SCVT norms	s available of Tools, machinery and equipment as per NCVT/SCVT	Shortage of Tools, machinery and equipment as per NCVT/SCVT norms

Placement details

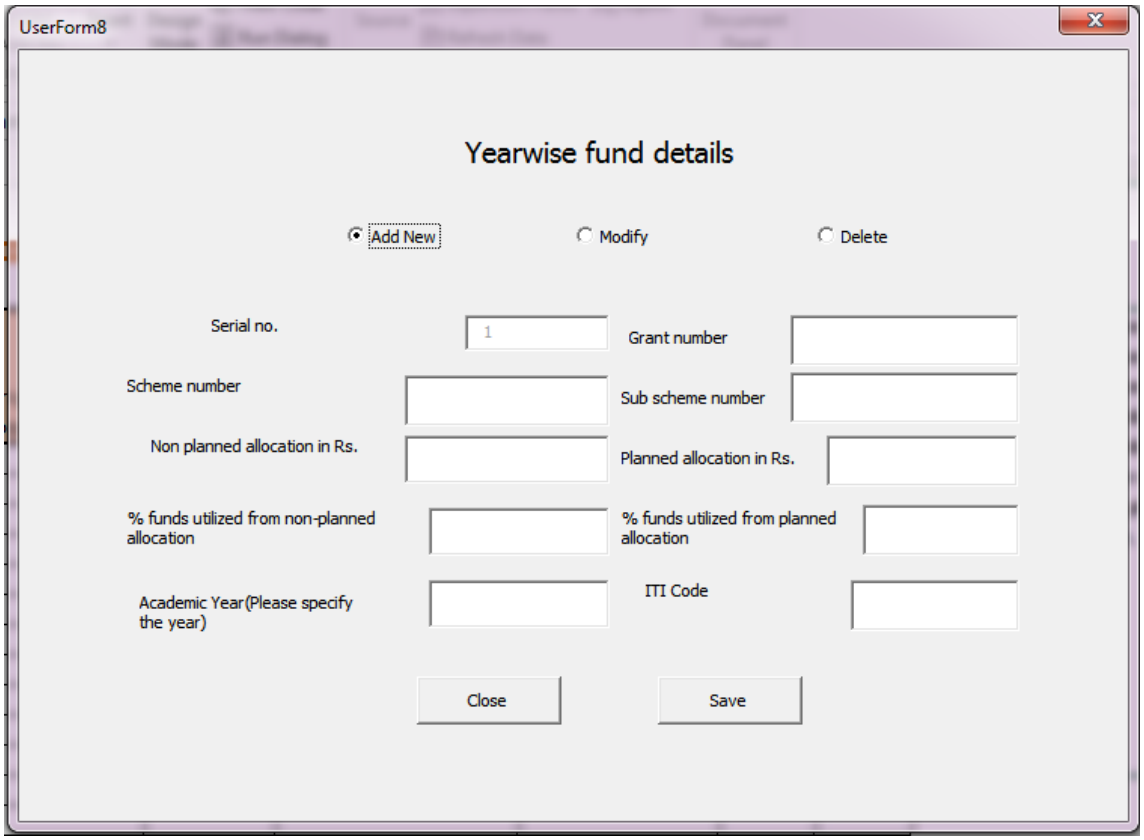
Name of trade	Number of boys	Number of girls	Number of students with salary <5000 Rs pm	Between 5000 and 10000 pm	Between 10000 and 15000 pm	Beyond 15000 pm	Year - one of 2009-10,2010-11,2011-12	ts applied for this trade at time of entrance exam	% students wage employed	% students self employed	% students unemployed	**ITI code**

Pass fail details

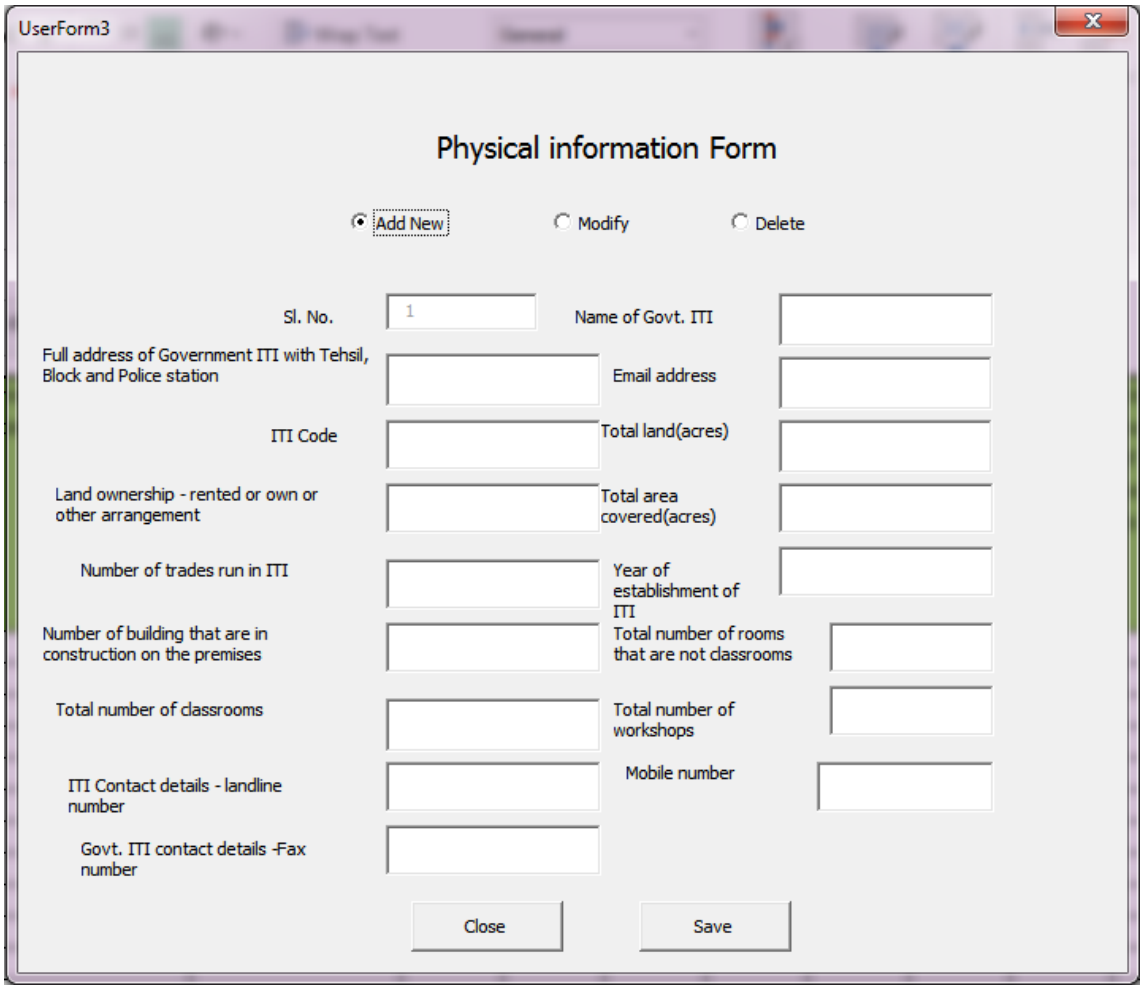
Trade name	Number of seats on offer	% seats filled at time of allotment	Pass percentage of the students	Student to teacher ratio	Number of visiting faculty for the course	**ITI code**

Snapshot of the final MIS developed:

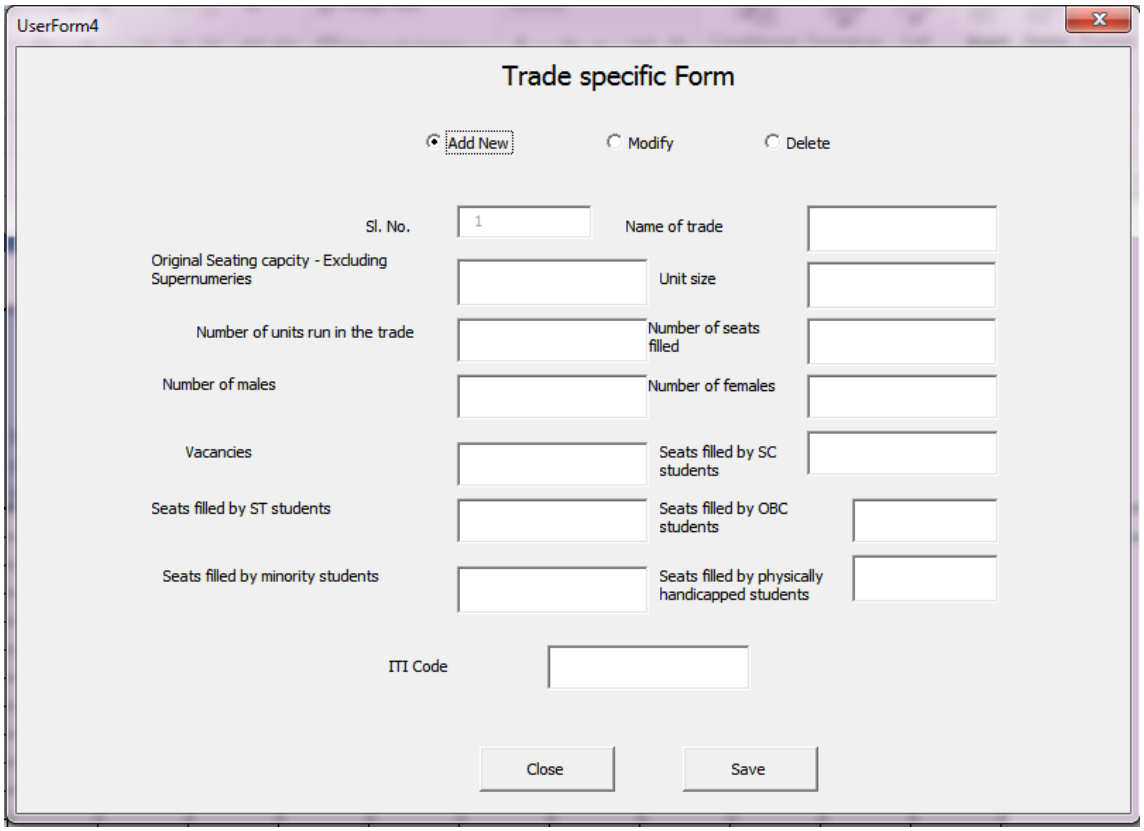
Form for fund details:



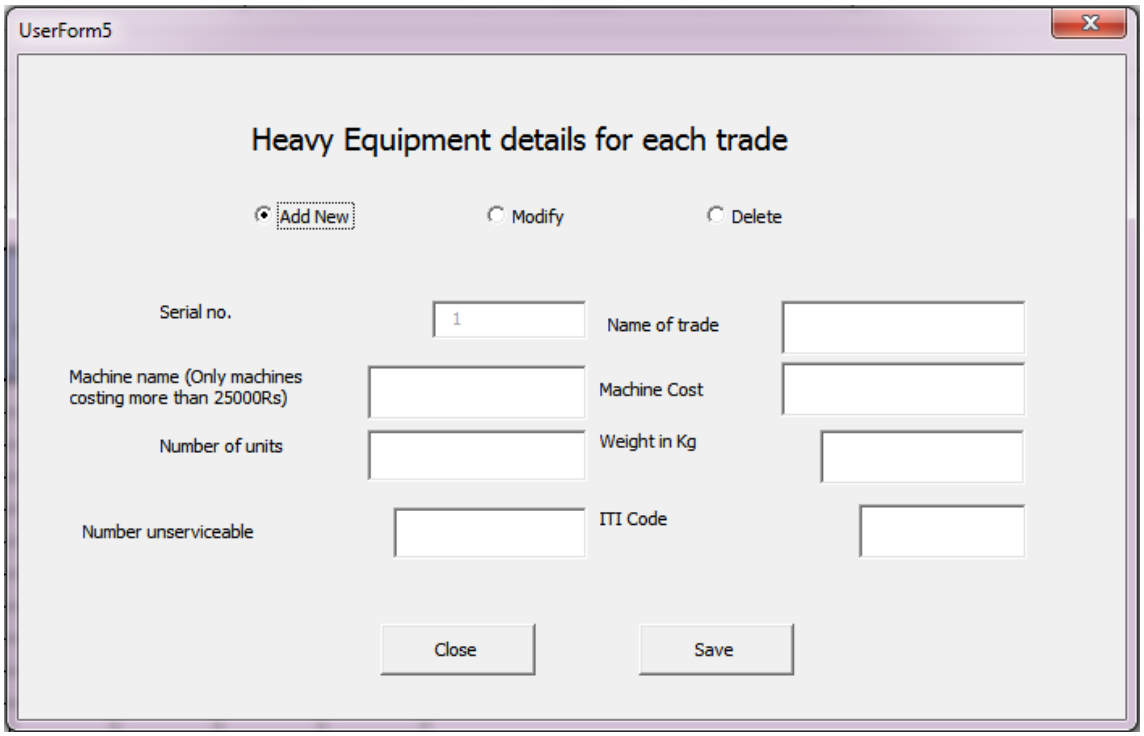
Form for Physical information:



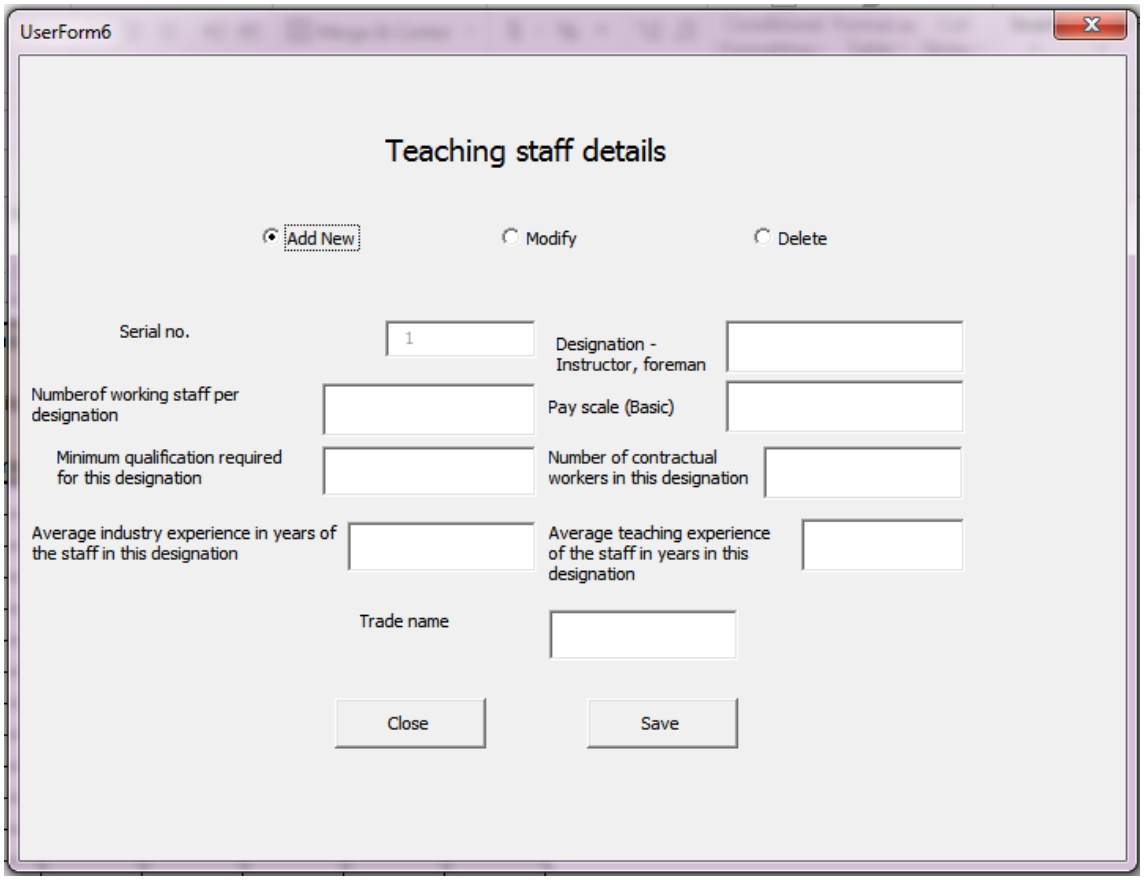
Form for trade information:



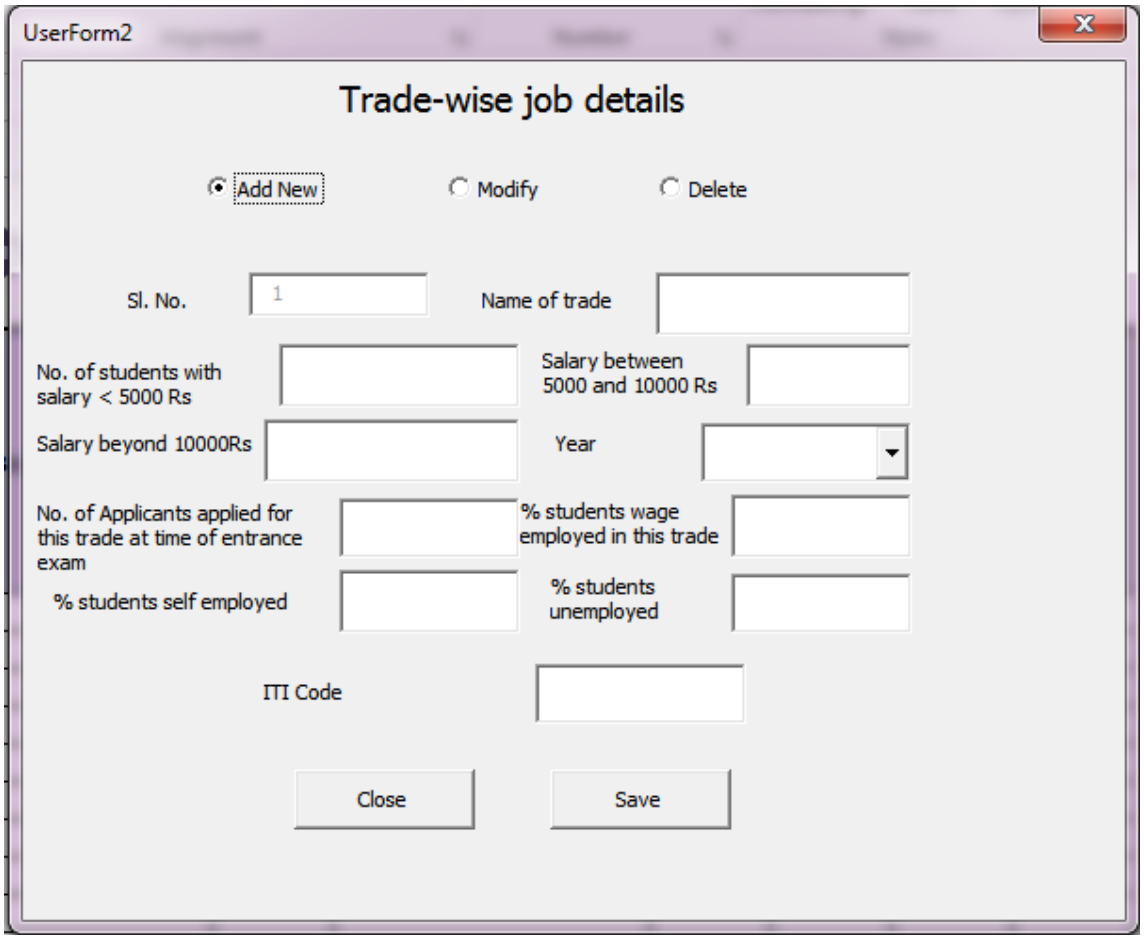
Form for equipment information:



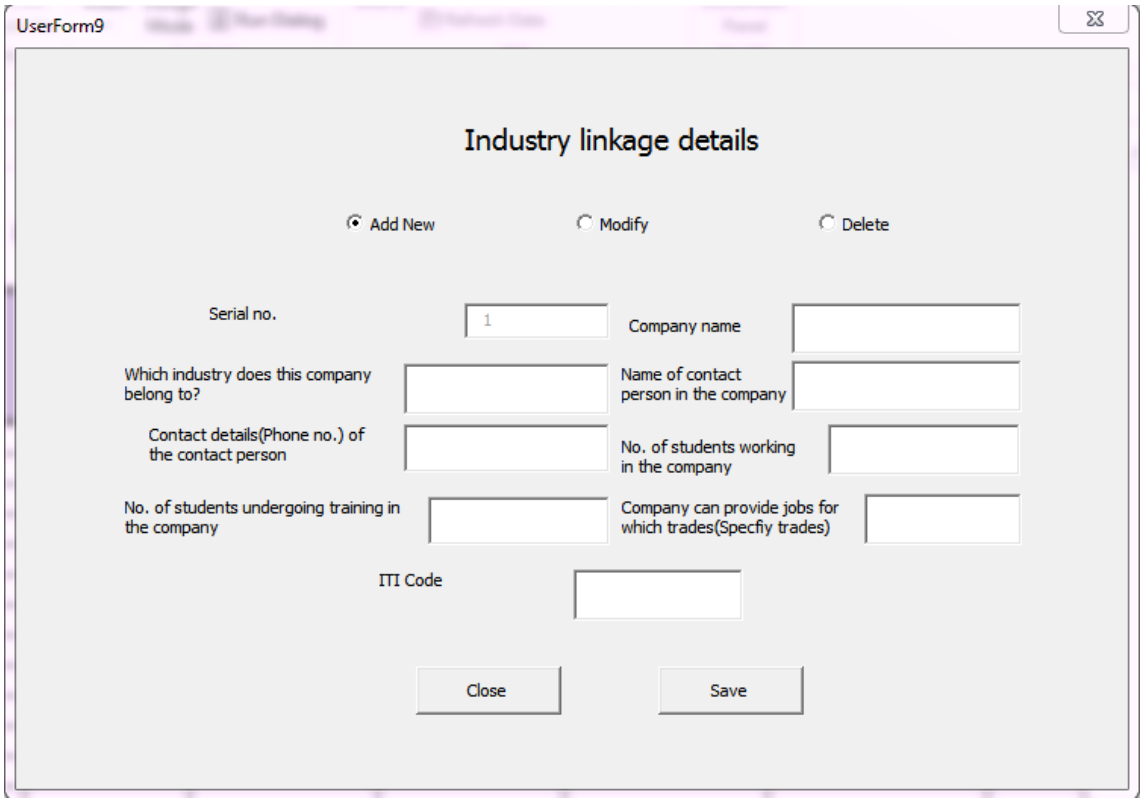
Form for Staff information:



Form for job details:



Form for industry linkage details:



ITI opening analysis snapshot:

District	Population	Growth Rate	Sex Ratio - determine where to open women based trad and ITI's	Literacy	Density/km	Area	no. of ITI required based on 1 iti per lakh populat	Shortfall of ITI's - if positive indicates excess - based on	Shortfall based on population - positive indicate excess	Per GITI seat population - highest is rank 1	Per GITI and PITI seat population - highest gets rank 1	ITI opening rank - low rank	Rank to increase sea in
Balrampur, Uttar Prades	2149066	27.74	922	51.76	642	3347.5	21	-5	-19	10332	8666	4	1
Unnao, Uttar Pradesh, Ir	3110595	15.19	901	68.29	682	4561	31	-6	-27	5803	5326	8	2
Auraiya, Uttar Pradesh,	1372287	16.3	864	80.25	681	2015.1	13	-3	-11	21442	10721	2	2
Hardoi, Uttar Pradesh, Ir	4091380	20.39	856	68.89	683	5990.3	40	-7	-34	5559	3874	1	4
Siddharth Nagar, Uttar P	2553526	25.17	970	61.81	882	2895.2	25	-2	-21	9252	3869	11	4
Budaun, Uttar Pradesh,	3712738	20.96	859	52.91	718	5170.9	37	-2	-28	6314	3612	12	6
Maharajganj, Uttar Prad	2665292	22.61	938	64.3	903	2951.6	26	-4	-23	6407	4899	10	7
Ramabai Nagar, Uttar P	1795092	14.82	862	77.52	594	3022	17	-3	-13	18699	6233	4	8
Bahraich, Uttar Pradesh	3478257	46.08	891	51.1	706	4926.7	34	-6	-29	4700	4007	9	9
Kannauj, Uttar Pradesh,	1658005	19.37	879	74.01	792	2093.4	16	-4	-15	7971	7971	3	9
Moradabad, Uttar Prade	4773138	25.25	903	58.67	1284	3717.4	47	12	-27	8230	1956	18	11
Kheri, Uttar Pradesh, Inc	4013634	25.14	887	62.71	523	7674.3	40	-12	-36	4420	3448	7	12
Sitapur, Uttar Pradesh, I	4474446	23.62	879	63.38	779	5743.8	44	-7	-39	4566	3379	6	12
Kushinagar, Uttar Prade	3560830	23.08	955	67.66	1226	2904.4	35	4	-25	4636	3168	15	14
Shahjahanpur, Uttar Pra	3002376	17.84	865	61.61	673	4461.2	30	-5	-25	3507	2519	14	15
Barabanki, Uttar Prades	3257983	21.86	908	63.76	740	4402.7	32	6	-17	5359	1794	22	15
Muzaffarnagar, Uttar Pr	4138605	16.8	886	70.11	1033	4006.4	41	16	-16	7779	1363	32	17
Pratapgarh, Uttar Prade	3173752	16.2	994	73.1	854	3716.3	31	5	-18	3796	2248	20	18
Gonda, Uttar Pradesh, Ir	3431386	24.07	922	61.16	857	4004	34	1	-24	3796	1744	21	19
Sant Kabir Nagar, Uttar I	1714300	20.71	969	69.01	1041	1646.8	17	6	-7	6593	1872	25	20
Shrawasti, Uttar Prades	1114615	-5.25	875	49.13	572	1948.6	11	-1	-8	4287	3440	29	21
Bijnor, Uttar Pradesh, In	3683896	17.64	913	70.43	808	4559.3	36	3	-23	3289	1771	19	22
Rae Bareli, Uttar Prades	3404004	18.51	941	69.04	739	4606.2	34	6	-18	3995	1550	28	23
Mainpuri, Uttar Pradesh	1847194	15.69	876	78.26	670	2757	18	-4	-16	3079	3079	13	24
Firozabad, Uttar Prades	2496761	21.62	867	74.6	1044	2391.5	24	11	-8	7093	1458	26	24
Banda, Uttar Pradesh, Ir	1799541	17.06	863	68.11	404	4454.3	17	-4	-11	3308	2295	16	26
Sant Ravidas Nagar, Utt	1554203	14.81	950	71.1	1531	1015.2	15	7	-5	8831	1331	33	27
Baghpat, Uttar Pradesh	1302156	11.87	858	73.54	986	1320.6	13	8	-2	20346	1146	35	28
Kaushambi, Uttar Prade	1596909	23.49	905	63.69	897	1780.3	15	4	-7	4990	1452	31	29
Kanshiram Nagar, Uttar	1438156	17.05	879	62.3	736	1954	14	6	-4	9987	1083	42	29
Ghaziabad, Uttar Prades	4661452	41.66	878	85	3967	1175.1	46	32	-11	12267	512	39	29
Pilibhit, Uttar Pradesh, Ir	2037225	23.83	889	63.58	567	3593	20	-3	-15	2681	2294	24	32
Deoria, Uttar Pradesh, Ir	3098637	14.23	1013	73.53	1220	2539.9	30	10	-14	2912	1753	36	33
Fatehpur, Uttar Pradesh	2632684	14.05	900	68.78	634	4152.5	26	1	-16	2992	1397	37	34

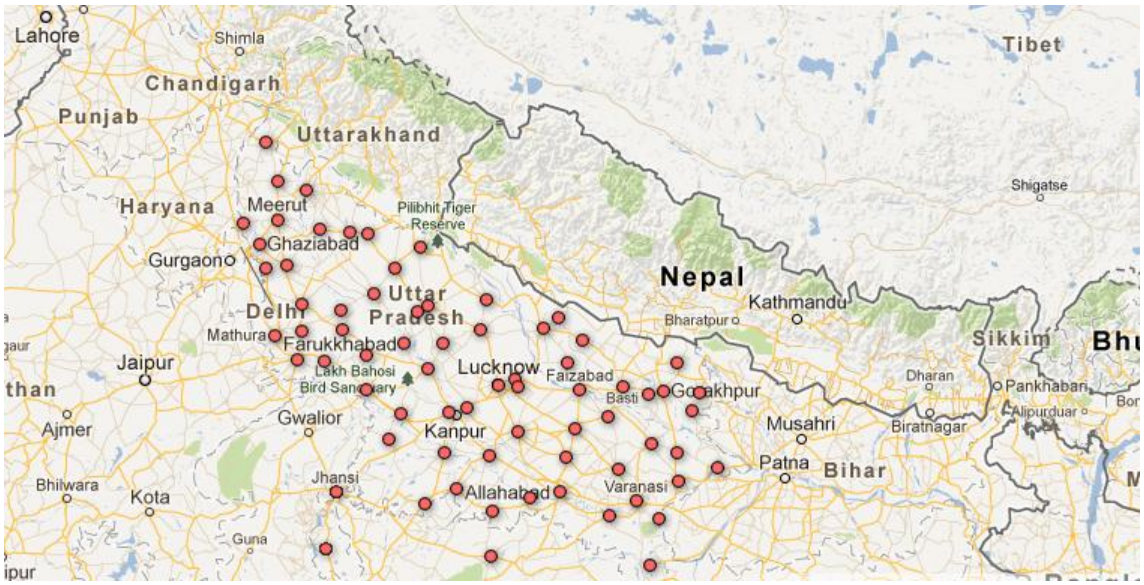
District	Population	Growth Rate	Sex Ratio - determine where to open women based trad and ITI's	Literacy	Density/km	Area	no. of ITI required based on 1 iti per lakh populat	Shortfall of ITI's - if positive indicates excess - based on	Shortfall based on population - positive indicate excess	Per GITI seat population - highest is rank 1	Per GITI and PITI seat population - highest gets rank 1	ITI opening rank - low rank	Rank to increase sea in
Lalitpur, Uttar Pradesh, I	1218002	24.57	905	64.95	242	5033.1	12	-9	-10	2086	2086	17	38
Rampur, Uttar Pradesh,	2335398	21.4	905	55.08	987	2366.2	23	4	-14	2115	1578	43	38
Basti, Uttar Pradesh, Inc	2461056	18.05	959	69.69	916	2686.7	24	4	-14	2822	1202	40	38
Etawah, Uttar Pradesh, I	1579160	17.95	867	79.99	683	2312.1	15	-1	-11	1935	1732	29	41
Mahamaya Nagar, Uttar	1565678	17.19	870	73.1	851	1839.8	15	9	-2	4893	874	48	41
Mau, Uttar Pradesh, Ind	2205170	18.94	978	75.16	1287	1713.4	22	22	4	4922	881	41	41
Chitrakoot, Uttar Prade	990626	29.29	879	66.52	315	3144.8	9	-1	-3	3347	1353	34	44
Sonbhadra, Uttar Prade	1862612	27.27	913	66.18	274	6797.9	18	9	5	11641	448	47	44
Farrukhabad, Uttar Prac	1887577	20.2	874	70.57	865	2182.2	18	4	-9	2681	1396	38	44
Jalaun, Uttar Pradesh, Ir	1670718	14.87	865	75.16	366	4564.8	16	-5	-11	1816	1644	23	47
Ambedkar Nagar, Uttar	2398709	18.35	976	74.37	1021	2349.4	23	31	13	6182	805	49	48
Aligarh, Uttar Pradesh, I	3673849	22.78	876	69.61	1007	3648.3	36	24	-4	2775	902	51	49
Jyotiba Phule Nagar, Ut	1838771	22.66	907	65.7	818	2247.9	18	10	-3	3355	672	55	50
Azamgarh, Uttar Prades	4616509	17.17	1017	72.69	1139	4053.1	46	43	6	3405	698	53	51
Kanpur Nagar, Uttar Pra	4572951	9.72	852	81.31	1449	3155.9	45	31	-7	1850	879	52	52
Jhansi, Uttar Pradesh, Ir	2000755	14.66	885	76.37	398	5027	20	1	-8	1463	830	45	53
Mahoba, Uttar Pradesh	876055	23.66	880	66.94	288	3041.9	8	-3	-4	1129	1084	46	54
Agra, Uttar Pradesh, Ind	4380793	21	859	69.44	1084	4041.3	43	50	16	3094	799	56	55
Sultanpur, Uttar Pradesh	3790922	17.92	978	71.14	855	4433.8	37	43	16	4033	480	61	55
Saharanpur, Uttar Prade	3464228	19.59	887	72.03	939	3689.3	34	30	4	2868	680	57	57
Gorakhpur, Uttar Prades	4436275	17.69	944	73.25	1336	3320.6	44	38	1	2550	778	59	57
Etah, Uttar Pradesh, Ind	1761152	12.77	863	73.27	717	2456.3	17	16	5	3079	601	65	57
Ballia, Uttar Pradesh, In	3223642	16.73	933	73.82	1081	2982.1	32	33	8	3041	729	60	60
Faizabad, Uttar Pradesh	2468371	18.16	961	70.63	1054	2341.9	24	58	39	3673	481	68	61
Meerut, Uttar Pradesh, I	3447405	15.01	885	74.8	1342	2568.9	34	21	-7	1792	529	64	62
Allahabad, Uttar Prades	5959798	20.74	902	74.41	1087	5482.8	59	79	32	3304	544	54	63
Jaunpur, Uttar Pradesh,	4476072	14.43	1018	73.66	1108	4039.8	44	79	44	4207	299	67	64
Ghazipur, Uttar Pradesh	3622727	19.26	951	74.27	1072	3379.4	36	80	51	3990	421	66	64
Bulandshahar, Uttar Pra	3498507	20.09	892	70.23	788	4439.7	34	31	7	2176	692	63	66
Lucknow, Uttar Pradesh	4588455	25.79	906	79.33	1815	2528.1	45	49	10	2063	667	58	67
Mathura, Uttar Pradesh	2541894	22.53	858	72.65	761	3340.2	25	65	47	3276	338	71	67
Mirzapur, Uttar Pradesh	2494533	17.89	900	70.38	561	4446.6	24	28	14	2609	327	70	69
Gautam Buddha Nagar,	1674714	39.32	852	82.2	1252	1337.6	16	20	7	1861	388	62	70
Varanasi, Uttar Pradesh	3682194	17.32	909	77.05	2399	1534.9	36	60	28	2404	376	69	71

ITI seat increase analysis:

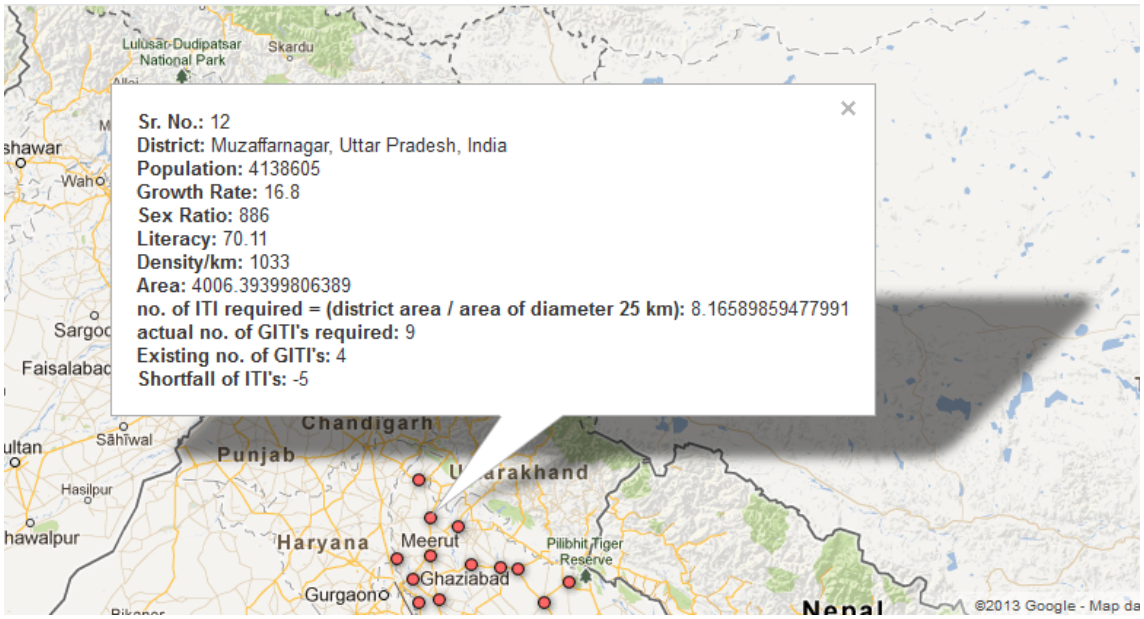
District	ITI opening rank - lower rank requires immediat	Rank to increase seats in existing iti's	Existing number of GITI seat	Existing number of GIT	Target - double the seats in the top 20, 1.5 times in the top 45 and 1.25 times in the top 60 - Targ	Difference in seats - Number of seats to be	New ITI'S to be opened	Year 1 seat creation(GITI) (50%	Year 2 seat creation (25% of	Year 3 seat creation (12.5	Year 4 seat creation(Remai	Post implementation per GITI seat populat
Balrampur, Uttar Pradesh, India	4	1	208	247	416	208	1	104	52	26	26	5166
Auraiya, Uttar Pradesh, India	8	2	536	584	1072	536	4	268	134	67	67	2901
Unnao, Uttar Pradesh, India	2	2	63	127	126	63	1	31	15	7	10	10891
Siddharth Nagar, Uttar Pradesh, India	1	4	735	1056	1470	735	4	367	183	91	94	2783
Hardoi, Uttar Pradesh, India	11	4	275	659	550	275	2	137	68	34	36	4642
Budaun, Uttar Pradesh, India	12	6	588	1027	1176	588	5	294	147	73	74	3157
Maharajganj, Uttar Pradesh, India	10	7	415	544	830	415	2	207	103	51	54	3211
Ramabai Nagar, Uttar Pradesh, India	4	8	95	287	190	95	2	47	23	11	14	9447
Kannauj, Uttar Pradesh, India	9	9	740	868	1480	740	5	370	185	92	93	2350
Bahraich, Uttar Pradesh, India	3	9	208	208	416	208	1	104	52	26	26	3985
Moradabad, Uttar Pradesh, India	18	11	579	2440	1158	579	7	289	144	72	74	4121
Sitapur, Uttar Pradesh, India	7	12	908	1164	1816	908	4	454	227	113	114	2210
Kheri, Uttar Pradesh, India	6	12	979	1324	1958	979	4	489	244	122	124	2285
Kushinagar, Uttar Pradesh, India	15	14	768	1123	1536	768	4	384	192	96	96	2318
Barabanki, Uttar Pradesh, India	14	15	856	1191	1712	856	4	428	214	107	107	1753
Shahjahanpur, Uttar Pradesh, India	22	15	607	1816	1214	607	4	303	151	75	78	2683
Muzaffarnagar, Uttar Pradesh, India	32	17	532	3036	1064	532	4	266	133	66	67	3889
Pratapgarh, Uttar Pradesh, India	20	18	836	1411	1254	418	2	209	104	52	53	2530
Gonda, Uttar Pradesh, India	21	19	903	1967	1806	903	3	451	225	112	115	1899
Sant Kabir Nagar, Uttar Pradesh, India	25	20	260	915	390	130	1	65	32	16	17	4395
Shrawasti, Uttar Pradesh, India	29	21	259	324	389	130	1	65	32	16	17	2865
Bijnor, Uttar Pradesh, India	19	22	1120	2080	1680	560	2	280	140	70	70	2192
Rae Bareli, Uttar Pradesh, India	28	23	852	2196	1704	852	2	426	213	106	107	1997
Firozabad, Uttar Pradesh, India	13	24	599	599	749	150	0	75	37	18	20	2466
Mainpuri, Uttar Pradesh, India	26	24	352	1712	528	176	1	88	44	22	22	4728
Banda, Uttar Pradesh, India	16	26	543	784	1086	543	4	271	135	67	70	1657
Sant Ravidas Nagar, Uttar Pradesh, India	33	27	175	1167	263	88	1	44	22	11	11	5909
Baghpat, Uttar Pradesh, India	35	28	64	1136	96	32	0	16	8	4	4	13564
Ghaziabad, Uttar Pradesh, India	31	29	320	1099	480	160	0	80	40	20	20	3326
Kanshiram Nagar, Uttar Pradesh, India	42	29	144	1327	216	72	1	36	18	9	9	6658
Kaushambi, Uttar Pradesh, India	39	29	379	9104	569	190	2	95	47	23	25	8192
Pilibhit, Uttar Pradesh, India	24	32	759	888	1518	759	4	379	189	94	97	1342
Deoria, Uttar Pradesh, India	36	33	1064	1767	1330	266	1	133	66	33	34	2329
Fatehpur, Uttar Pradesh, India	37	34	879	1884	1319	440	2	220	110	55	55	1995

District	ITI opening rank - lower rank requires immediat	Rank to increase seats in existing iti's	Existing number of GITI seat	Existing number of GIT	Target - double the seats in the top 20, 1.5 times in the top 45 and 1.25 times in the top 60 - Targ	Difference in seats - Number of seats to be	New ITI'S to be opened	Year 1 seat creation(GITI) (50%	Year 2 seat creation (25% of	Year 3 seat creation (12.5	Year 4 seat creation(Remai	Post implementation per GITI seat populat
Basti, Uttar Pradesh, India	17	38	583	583	1166	583	3	291	145	72	75	1044
Rampur, Uttar Pradesh, India	43	38	1104	1479	1380	276	1	138	69	34	35	1692
Lalitpur, Uttar Pradesh, India	40	38	872	2047	1308	436	1	218	109	54	55	1881
Mau, Uttar Pradesh, India	29	41	816	911	816	0	0	0	0	0	0	1935
Mahamaya Nagar, Uttar Pradesh, India	48	41	319	1791	399	80	0	40	20	10	10	3924
Etawah, Uttar Pradesh, India	41	41	448	2503	560	112	0	56	28	14	14	3937
Sonbhadra, Uttar Pradesh, India	34	44	295	732	443	148	1	74	37	18	19	2236
Chitrakoot, Uttar Pradesh, India	47	44	160	4157	320	160	2	80	40	20	20	5820
Farrukhabad, Uttar Pradesh, India	38	44	704	1352	880	176	0	88	44	22	22	2144
Jalaun, Uttar Pradesh, India	23	47	919	1016	1149	230	1	115	57	28	30	1454
Ambedkar Nagar, Uttar Pradesh, India	49	48	388	2979	485	97	1	48	24	12	13	4945
Aligarh, Uttar Pradesh, India	51	49	1323	4073	1985	662	2	331	165	82	84	1850
Jyotiba Phule Nagar, Uttar Pradesh, India	55	50	548	2736	685	137	0	68	34	17	18	2684
Azamgarh, Uttar Pradesh, India	53	51	1355	6613	2033	678	2	339	169	84	86	2270
Kanpur Nagar, Uttar Pradesh, India	52	52	2471	5202	2471	0	0	0	0	0	0	1850
Jhansi, Uttar Pradesh, India	45	53	1367	2410	1367	0	1	0	0	0	0	1463
Mahoba, Uttar Pradesh, India	46	54	775	808	969	194	1	97	48	24	25	904
Sultanpur, Uttar Pradesh, India	56	55	1415	5482	2123	708	2	354	177	88	89	2063
Agra, Uttar Pradesh, India	61	55	939	7897	1174	235	2	117	58	29	31	3229
Etah, Uttar Pradesh, India	57	57	1207	5094	1509	302	1	151	75	37	39	2295
Gorakhpur, Uttar Pradesh, India	59	57	1739	5702	1739	0	0	0	0	0	0	2551
Saharanpur, Uttar Pradesh, India	65	57	571	2930	571	0	0	0	0	0	0	3084
Ballia, Uttar Pradesh, India	60	60	1060	4422	1060	0	0	0	0	0	0	3041
Faizabad, Uttar Pradesh, India	68	61	672	5131	840	168	0	84	42	21	21	2938
Meerut, Uttar Pradesh, India	64	62	1923	6516	1923	0	0	0	0	0	0	1792
Allahabad, Uttar Pradesh, India	54	63	1803	10955	2705	902	2	451	225	112	114	2203
Jaunpur, Uttar Pradesh, India	67	64	1063	14970	1595	532	2	266	133	66	67	2806
Ghazipur, Uttar Pradesh, India	66	64	907	8605	1361	454	1	227	113	56	58	2661
Bulandshahar, Uttar Pradesh, India	63	66	1607	5055	1607	0	0	0	0	0	0	2177
Mathura, Uttar Pradesh, India	58	67	2224	6879	2224	0	0	0	0	0	0	2063
Lucknow, Uttar Pradesh, India	71	67	775	7520	969	194	1	97	48	24	25	2623
Mirzapur, Uttar Pradesh, India	70	69	956	7628	1195	239	0	119	59	29	32	2087
Gautam Buddha Nagar, Uttar Pradesh, In	62	70	899	4316	899	0	0	0	0	0	0	1862
Varanasi, Uttar Pradesh, India	69	71	1531	9793	1531	0	0	0	0	0	0	2405

Location of various ITI's in UP:



Geographical representation for ITI opening:



Trade analysis of the bottom ten trades by performance:

क्र०सं०	2012	एन०सी०वी०टी०			एस०सी०वी०टी०			योग				2011 एन०सी०वी०टी०			एस०सी०वी०टी०			योग					
	व्यवसाय का नाम	कुल क्षमता	कुल प्रवेशि	रिक्त सीटें	कुल क्षमता	कुल प्रवेशि	रिक्त सीटें	कुल क्षमता	कुल प्रवेशि	रिक्त सीटें	प्रतिशत प्रवेशित	कुल क्षमता	कुल प्रवेशि	रिक्त सीटें	कुल क्षमता	कुल प्रवेशि	रिक्त सीटें	कुल क्षमता	कुल प्रवेशि	रिक्त सीटें	प्रतिशत	Average Percentage (2011&2012)	ranking(lower to higher)
1	कम्प्यूटर एडेड इम्बाइड्री एण्ड निटिल वर्क (डब्लू)	0	0	0	483	170	313	483	170	313	35.20	0	0	0	483	115	368	483	115	368	23.81	**29.50**	1
2	ड्राफ्ट मैन सिविल (डब्लू)	21	16	5	42	14	28	63	30	33	47.62	63	36	27	42	6	36	105	42	63	40.00	**42.86**	2
1	ड्रेस मेकिंग	210	160	50	1483	690	793	1693	850	843	50.21	231	172	59	1491	608	883	1722	780	942	45.30	**47.73**	3
3	प्लास्टिक प्रोसेसिंग ओपरेटर	42	28	14	105	71	34	147	99	48	67.35	42	29	13	273	124	149	315	153	162	48.57	**54.55**	5
2	फेशन टेक्नालाजी (डबलू)	252	216	36	1815	1032	783	2067	1248	819	60.38	273	208	65	1827	887	940	2100	1095	1005	52.14	**56.23**	4
4	इलैक्ट्रानिक मैकेनिक (डब्लू)	42	34	8	21	15	6	63	49	14	77.78	21	7	14	42	18	24	63	25	38	39.68	**58.73**	6
5	हेयर एण्ड स्किन केयर	357	287	70	1252	723	529	1609	1010	599	62.77	357	261	96	1281	660	621	1638	921	717	56.23	**59.47**	7
6	डाटा एन्ट्री ओपरेटर	0	0	0	273	189	84	273	189	84	69.23	0	0	0	294	158	136	294	158	136	53.74	**61.20**	8
7	मैकेनिक रिपेयर एण्ड मेन्टीनेन्स (टू व्हीलर)	0	0	0	189	121	68	189	121	68	64.02	0	0	0	189	113	76	189	113	76	59.79	**61.90**	9
9	नेटवर्कस टेक्नीशियन	0	0	0	273	201	72	273	201	72	73.63	0	0	0	294	157	137	294	157	137	53.40	**63.14**	11
10	बाशुलिपि बग्रेजी	273	206	67	21	13	8	294	219	75	74.49	273	149	124	21	7	14	294	156	138	53.06	**63.78**	12

Snapshot of polytechnics – new exam centres:

S.No.	Institution Code	Name	Total No. of students
30	209	GOVT. POLYTECHNIC,GONDA	520
31	210	GOVT. POLYTECHNIC,BAHRAICH	340
32	211	GOVT. GIRLS POLYTECHNIC,AMETHI,SULTANPUR	390
33	212	GOVT. POLYTECHNIC,UNNAO	400
34	214	GOVT. POLYTECHNIC,HARDOI	400
35	215	GOVT. POLYTECHNIC,LAKHIMPURKHEERI	340
36	216	GOVT. POLYTECHNIC,BAREILLY	877
37	217	GOVT. GIRLS POLYTECHNIC,BAREILLY	780
38	218	GOVT. POLYTECHNIC,BADAUN	520
39	219	GOVT. POLYTECHNIC,PILIBHIT	400

District wise scheme schedule:

	Scheme name		
District	**BRGF**	**MSDP**	**BADP**
Agra, Uttar Pradesh, India			
Aligarh, Uttar Pradesh, India			
Allahabad, Uttar Pradesh, India			
Ambedkar Nagar, Uttar Pradesh, India	Y		
Auraiya, Uttar Pradesh, India			
Azamgarh, Uttar Pradesh, India	Y		
Baghpat, Uttar Pradesh, India		Y	
Bahraich, Uttar Pradesh, India	Y	Y	Y
Ballia, Uttar Pradesh, India			
Balrampur, Uttar Pradesh, India	Y	Y	Y
Banda, Uttar Pradesh, India	Y		
Barabanki, Uttar Pradesh, India	Y	Y	
Bareilly, Uttar Pradesh, India		Y	
Basti, Uttar Pradesh, India	Y		
Bijnor, Uttar Pradesh, India		Y	
Budaun, Uttar Pradesh, India	Y	Y	
Bulandshahar, Uttar Pradesh, India		Y	
Chandauli, Uttar Pradesh, India	Y		
Chitrakoot, Uttar Pradesh, India	Y		
Deoria, Uttar Pradesh, India			
Etah, Uttar Pradesh, India	Y		
Etawah, Uttar Pradesh, India			
Faizabad, Uttar Pradesh, India			
Farrukhabad, Uttar Pradesh, India	Y		
Fatehpur, Uttar Pradesh, India			
Firozabad, Uttar Pradesh, India			
Gautam Buddha Nagar, Uttar Pradesh, India			
Ghaziabad, Uttar Pradesh, India		Y	
Ghazipur, Uttar Pradesh, India			
Gonda, Uttar Pradesh, India	Y		
Gorakhpur, Uttar Pradesh, India	Y		
Hamirpur, Uttar Pradesh, India	Y		
Hardoi, Uttar Pradesh, India	Y		
Jalaun, Uttar Pradesh, India	Y		
Jaunpur, Uttar Pradesh, India	Y		
Jhansi, Uttar Pradesh, India			
Jyotiba Phule Nagar, Uttar Pradesh, India		Y	
Kannauj, Uttar Pradesh, India			
Kanpur Nagar, Uttar Pradesh, India			

Kanshiram Nagar, Uttar Pradesh, India	Y		
Kaushambi, Uttar Pradesh, India	Y		
Kheri, Uttar Pradesh, India	Y	Y	Y
Kushinagar, Uttar Pradesh, India	Y		
Lalitpur, Uttar Pradesh, India	Y		
Lucknow, Uttar Pradesh, India		Y	
Mahamaya Nagar, Uttar Pradesh, India			
Maharajganj, Uttar Pradesh, India	Y		Y
Mahoba, Uttar Pradesh, India	Y		
Mainpuri, Uttar Pradesh, India			
Mathura, Uttar Pradesh, India			
Mau, Uttar Pradesh, India			
Meerut, Uttar Pradesh, India		Y	
Mirzapur, Uttar Pradesh, India	Y		
Moradabad, Uttar Pradesh, India		Y	
Muzaffarnagar, Uttar Pradesh, India		Y	
Pilibhit, Uttar Pradesh, India		Y	Y
Pratapgarh, Uttar Pradesh, India	Y		
Rae Bareli, Uttar Pradesh, India	Y		
Ramabai Nagar, Uttar Pradesh, India			
Rampur, Uttar Pradesh, India		Y	
Saharanpur, Uttar Pradesh, India		Y	
Sant Kabir Nagar, Uttar Pradesh, India	Y		
Sant Ravidas Nagar, Uttar Pradesh, India			
Shahjahanpur, Uttar Pradesh, India		Y	
Shrawasti, Uttar Pradesh, India	Y	Y	Y
Siddharth Nagar, Uttar Pradesh, India	Y	Y	Y
Sitapur, Uttar Pradesh, India	Y		
Sonbhadra, Uttar Pradesh, India	Y		
Sultanpur, Uttar Pradesh, India			
Unnao, Uttar Pradesh, India	Y		
Varanasi, Uttar Pradesh, India			

Y indicates the scheme is available in that particular district.

MSDP: Multi Sectoral Development Plan

BRGF: Backward Region Grant Fund

BADP: Border Area Development Program

RAKSHAK
FOUNDATION

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