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# PHYSICAL INFRASTRUCTURE AND HUMAN RESOURCES IN PRIVATELY MANAGED TECHNICAL EDUCATION INSTITUTIONS IN HIMACHAL PRADESH: STATUS AND ISSUES

Isha Chauhan<sup>1</sup> and Dr. Vishal Sood<sup>2</sup>

### Abstract

The main aim of the present investigation was to study the status and issues related to physical infrastructure and human resources in privately managed technical education institutions in Himachal Pradesh. For conducting this study, private undergraduate engineering institutions situated in five districts of Himachal Pradesh were selected. Data were collected with help of self-developed checklist and a questionnaire for students. Content analysis technique along with percentage analysis was used for analysis of data. The findings of the study revealed that a number of issues related to infrastructural facilities as well as lack of qualified teaching faculty are in existence that need due attention in privately managed institutions. In the last section of the paper, the findings and suggestions have been discussed in detail.

### Keywords: Physical infrastructure, Human resources, Privately managed institutions.

### **INTRODUCTION**

India's emphasis has always remained to develop a pool of manpower with scientific inclinations. Various commissions have also given recommendations regarding expansion of technical education. Other reasons behind the initiation of privatization in technical education were poor financial condition of states, scarce resources, efficiency, competition, choice, equality and social equity. After independence, up to late 70's, there were only a few engineering institutions in each state imparting technical education. But during the past one and a half decade, there has been a phenomenal growth in the private technical education institutions and sanctioned intake in the country. Main problem is that this inadequately planned expansion and is haphazard and has resulted in a number of sub-viable institutions. It is also a well-known fact that quality of technical education in India at present is getting diluted at an alarming rate. Moreover, government agencies like All India Council for Technical Education (AICTE), University Grant Commission (UGC), National Institute of Educational Planning and Administration (NIEPA), Central Advisory Board of Education (CABE), etc. has helped in streamlining the technical education system. But, in many cases the considerations for fulfilling minimum requirements for infrastructure and human resources, laid down by statutory bodies like AICTE and UGC have been overlooked.

In Himachal Pradesh, HPTU (Himachal Pradesh Technical University) is looking after the technical courses. There were only 3 private engineering colleges till 2007 in Himachal Pradesh, and after 2008, 17 new engineering colleges came up which indicates the mushrooming growth of private educational institutions in this small hilly state. Similarly, there has been a spurt growth in number of private universities in this state, which are mostly offering technical education. After the establishment of Private Educational Institutions Regulatory Commission in 2010-11 to keep a hawk's eye on private institutions, reduction in the number of institutions has been noticed in last few years. But the left institutions also

<sup>&</sup>lt;sup>1</sup> Ph. D. Research Scholar, H. P. University, Shimla-5

<sup>&</sup>lt;sup>2</sup> Dept. of Education, ICDEOL, H. P. University, Shimla-5

### **INNOVATIVE THOUGHTS** International Research Journal

Volume 5, Issue 5, April 2018

seem to have inadequate infrastructural and academic support and vacant posts, leading to unfilled seats. The review of past research studies also reveals that similar issues related to infrastructure and human resources in technical education institutions are prevailing in other parts of country also. A glimpse of some studies undertaken in past is provided here: Kumar (2009) and Naik (1993) found that although there had been a phenomenal expansion of engineering education in India after Independence, yet it had been faced with a number of problems like dilution of quality, infrastructural issues, faculty crunch, commercialization, etc. Regarding infrastructure, Bansal (2006), Kumar (2014) and Jainab (2017) found that the land of private technical education institutions was sufficient according to AICTE norms but building and classrooms were not according to their norms. Library, computer lab and science labs and equipments and instruments were appropriate but students did not perform experiments regularly in their laboratory. In respect of teachers, Shrivastav (2003), Kumar (2008), Nargunde (2009) and Kalva (2010) concluded that in the private sector, there is not enough qualified faculty, and acute shortage of PhD qualified faculty is coming through the education system. Several of teachers are only fresh graduates. These teachers are also not paid salary & allowances as prescribed by AICTE. They may be on contract for ten months and are paid renumeration on period basis. Chaturvedi (2003), Kalpana (2012) and Devi (2013) further suggested that the institutions should focus more on improving their physical facilities such as providing latest equipments in the laboratories, offering Wi-Fi facility etc. and the working conditions of teachers. Teachers must be provided resources like computers, internet, separate arrangement for sitting, fresh and hygienic rooms etc. AICTE should also ensure that all private colleges maintain stipulated quality. Periodic monitoring and assessment must be carried out to maintain or continue their recognition / approval.

From these reviews, it is apparent that in privately managed institutions infrastructural issues and human resources related issues can be seen throughout India. These issues are existing in educational scenario from last one and half decade continuing till now. Thus, there is a definite trend among privately managed institutions in India. Private sector is encouraged to start technical institutions and they have increased accessibility also but it must be ensured that they do not lead education to commercialization.

### **OBJECTIVES OF THE STUDY**

- 1. To study the status of physical Infrastructure and human resources in privately managed technical education institutions.
- 2. To study the major issues related to physical Infrastructure and human resources in privately managed technical education institutions in Himachal Pradesh.
- 3. To suggest measures for bringing improvement in physical Infrastructure and human resources in privately managed technical education institutions.

# **DELIMITATIONS OF THE STUDY**

- 1. The study was delimited to privately manage undergraduate engineering institutes that are affiliated to Himachal Pradesh Technical University, Hamirpur.
- 2. The study was restricted to only those institutions that are located in 5 districts i.e. Mandi, Kangra, Solan, Hamirpur and Sirmaur of Himachal Pradesh.
- 3. Under physical infrastructure, only academic and instructional infrastructure was studied in this investigation.

Volume 5, Issue 5, April 2018

## **METHODOLOGY**

Survey technique under descriptive method of research was employed in the present study. The qualitative research approach was followed for achieving the objectives of study.

### Sampling:

Five districts of Himachal Pradesh i.e. Mandi, Kangra, Solan, Hamirpur and Sirmaur were selected purposively for the present study. The investigator separately covered at least 50% of total number of privately managed undergraduate engineering institutions in the sampled five districts. These institutions were selected on the basis of judgment of the researcher. The selection of 10 institutions and 600 students of the selected institutions were made by employing incidental sampling technique. The students who were willing to provide the requisite information were taken into consideration for the present study.

### **Research Tools Developed:**

- 1. Checklist: In order to determine the status of academic and instructional infrastructural facilities, a checklist was prepared, comprising of both types of items i.e. yes/no type items and open-ended type items.
- 2. Questionnaire: For eliciting the views of students, a structured questionnaire comprising of both close as well as open-ended questions was developed by the investigator herself. The validity of these tools was ensured through content validation technique.

### Analysis of Data:

The collected information was analyzed with the help of content analysis technique along with percentage analysis.

### DISCUSSION OF FINDINGS AND IMPLICATIONS

Regarding the availability of instructional infrastructure, it was found that seminar hall and classrooms were available in all the institutions but tutorial rooms were available in only 60% privately managed engineering institutions. It was also observed that only 40% of the institutions had adequate no. of classrooms as per AICTE norms, whereas in remaining institutions (60%) the number of classrooms was not adequate in accordance with the prescribed norms. Further, in all the institutions, library (with reading room) and computer centre were available but there were 30% institutions in which the dimensions of computer centre was not adequate as per the norms of AICTE. With respect to academic infrastructure, it was found that language laboratory, drawing hall and workshops were available in all the engineering institutions. In context of laboratories, it was found that in 80% of the sampled engineering institutions the number of laboratories was not sufficient as per the guidelines of AICTE. In addition to this, in more than half of the institutions (60%), the dimensions of the laboratories were inappropriate. Apart from this, the results pertaining to availability of human resources in engineering institutions revealed that in a large number of institutions (80%), posts of teaching faculty in one or another subject were lying vacant. The posts of professors were vacant in 80% of the institutions, whereas in 20% institutions some posts of associate and assistant professors were also vacant. Besides this, laboratory technicians and laboratory attendants were also not in position as per the requirement of AICTE.

### INNOVATIVE THOUGHTS International Research Journal

Volume 5, Issue 5, April 2018

The major issues regarding physical infrastructure as stated by students are related to seminar hall, classrooms and tutorial rooms. In this regard, most of the students pointed out that the seminar hall and classrooms in their institutions are not well ventilated and seating arrangement is also not comfortable. Moreover, classrooms and tutorial rooms were not adequate in terms of number and dimensions. They further suggested that the rooms for instructional purposes should be well lit and ventilated. The institutions can make the seating arrangement in sloping tiers so that students can see to the board over the heads of front seated students. Regarding library, the students indicated that latest books and e-journals are not available in their institutions. They suggested that the study space in library should be expanded alongwith adding latest books and e-journals. The seating should be comfortable and library should be computerized so that they can find the needed book easily. About the computer centre, the students reported that the computers are of old configuration and some of the furniture items are also insufficient in their institutions. In this regard, they suggested that more chairs and headphones should be procured in computer centre. In addition to this, exhaust fan and power backup facility should be made available in computer centre. With respect to laboratories and workshops, the students pointed towards lack of chemicals, equipments and apparatus. The students suggested that sufficient chemicals, apparatus and machinery should be provided in the laboratories and workshops so that everyone may get the chance to perform the practicals individually. About the language laboratory, it was suggested by the students that more time should be provided individually to use the softwares in language laboratory to learn linguistic skills. The students revealed that teaching staff in their institution is not sufficient. They suggested that experienced and well qualified staff should be appointed by the institution. In addition to this, an expert computer instructor and librarian should be recruited in the institution.

To conclude, it may be said that private institutions are playing major role in providing technical education to the students of Himachal Pradesh, but there are many issues regarding the facilities and resources being provided in these institutions. It is of vital significance that the institutions must take immediate steps to expand its infrastructural facilities according to the norms of the regulatory bodies. The statutory bodies should also keep a continuous vigil to ensure the availability and proper utilization of such facilities. The authorities should keep a proper check on recruitment of essential teaching faculty so that quality of education being imparted in privately managed technical education institutions in the state of Himachal Pradesh may be improved to the highest level.

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