

Supportive aspects of Corporate Alliance with Academic Institutions for Career Expansion A study among the rank holding institutions in Tamil Nadu

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Abstract

The industry and institution collaborations have ushered in a paradigm shift in the education sectors across the globe. The current research reveals the Arts and Science institutions growth and its collaboration with industry. The variables adopted for the study are research and innovation, placements and training, skill development, faculty development, teaching and learning, and entrepreneurship development. The primary objective is to identify the industry and institutional collaboration and its career expansion. A structured questionnaire is adopted as a tool for collecting the data. Primary data collected from Heads, Deans, placement officers from universities and colleges. The collected data was analyzed by using simple frequency and mean to understand the test to know the literal knowledge on Industry and institution adoption on Industry 4.0 and their mutual collaboration.

Key Words: Industry Institute collaboration, Research and Innovation, Placement and internship career expansion

Introduction

Industry-Institute collaboration will always be relevant for the skilled workforce and supply of manpower to the industries. Universities provide the necessary workforce to run an industry, through their research they also furnish innovative ideas to start new business ventures. However, the relationship between industry and universities are not simple due to their inherent differences in working. The predominant contributions by universities are based on theory however industries want to look at the practical aspect which results in profitability for them. They are like two sides of the river who flow independently. However, when the Industry and Universities collaborates, it will create a positive impact on the betterment of both the Industry, Universities, and society in general. These collaborations are also creating an environment of entrepreneurship, innovation,

and transformation. If we look at the world's top-ranking Universities, they attract industry funding for the projects and innovations. Some of the examples are the pharmaceutical industry and manufacturing industries who are some of the most prominent investors in universities. Over the last 2 decades we also find the IT industry investing in academia, as they need skilled workforce for the industry. Exactly 26,355 universities from all over the world are included in a survey carried out in July 2016 that lists the countries arranged by the number of universities in the top rankings (Shattock, 2017). We can conclude with this statistical data that collaboration between industry and academia is on the rise

Gaps in Research

There is a lack of extensive research experience in industry and academia collaboration and there is less literature that is available in the career expansion of institutions on industry collaboration. Changing curriculum and making experiential learning opportunities available can be done only through experience and collaboration. For this Industry involvement in curriculum development is required. Currently there is very little research on academics and industry professionals' interaction on research, innovation, and curriculum design. Most of the collaborations happen for skill development and placements alone. Based on the available literature, there is need of study to understand the aspects other variables such as innovation and research, and incubation and startups are taken for the study by the researcher.

Industry and academia collaboration Components used in the research.

Based on the Abhijeet Pandurang (et.al 2014) : Has derived a conceptual model on influence of industry institute collaboration on research & innovation, teaching and learning, employability and knowledge transfer considering all other researchers findings. From the support of past literature, the existing conceptual frame work I included two more new variables for better result and in understanding the significant benefit and influence of industry institute collaboration for the institutions career growth. These two variables are Entrepreneurship/ Incubation and infrastructure development. By following the same, the questionnaires were prepared and data was collected from the Arts and Science Institutions.

Research and Innovation: This was mainly to check if industries are willing to work with institutions on research and development and collaborative research will reduce costs and useful to develop new products or services. However it was notices that most of the industries are not interested in collaborating on research and development the collaboration is mainly for placements.

Placements and Internships: The study shows that the collaboration creates a window on future recruits that could sharply reduce internal training costs and helps in increasing placements in institutes. However compulsory internship programs for students and industrial research are still low.

Teaching & Learning: The study recommends that training of students by industry personnel will offer a real time experience of learning and the collaboration can specifically aim at modernizing teaching and learning. The Collaboration can also create domain and industry specific teacher at the institution for training the students.

Curriculum Construction: New programs can be introduced through industry institute collaboration. Looking at unemployment, mismatch of skills, jobs long running individual programs can be developed to boost skills in the classroom.

Skill Development/CSR Support: Through the CSR initiatives many industries are coming forward to offer skill development courses for both students and faculty members. This helps in reducing the training time of these students when they are employed. In some cases industrial visits are offered to academia.

Incubation & Start Ups: This will support the entrepreneurial mind set among the students. Funding for setting up incubation center can be provided through the industry institute collaboration.

Literature Review

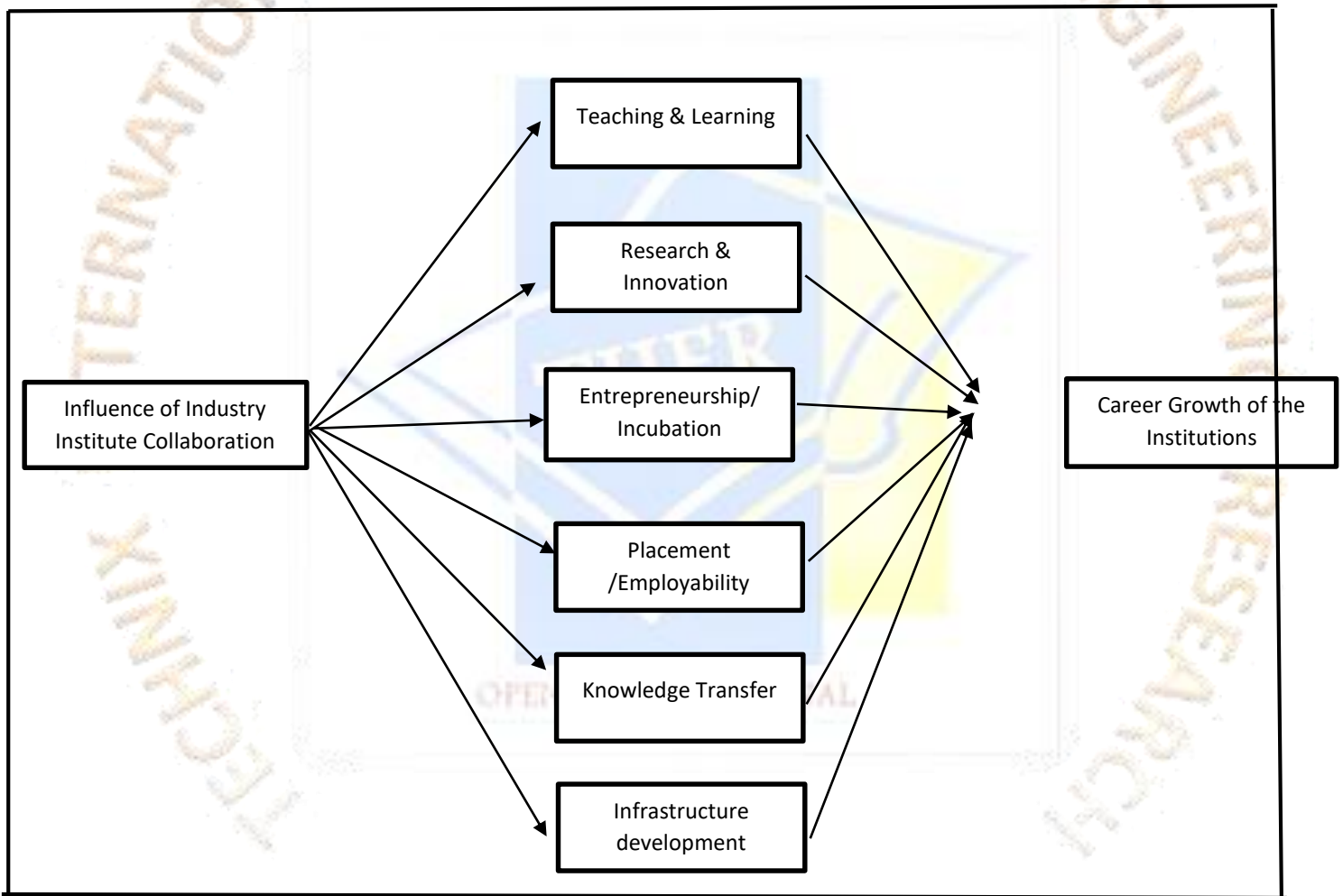
According to **Planivelrajan and Vimala (2023)** research reveals that data related to the collaboration between the industries and institutions clearly indicates that 59% of the industries are collaborated with the institutions, whereas 41% do not have any tie - ups with the institutions. Collaborative efforts with industries and institutions exhibit diverse patterns with 59% involving less than 5 entities of institution and 18% operating independently without any collaborative partnerships. The same research says that **readiness for Industry 4.0** within the surveyed population concerning a substantial majority of 56% have taken proactive steps towards readiness by attending relevant seminars and other training sessions and 44% of the industries are yet to engage in such preparatory activities, signifying a potential gap in their preparedness for the transformative changes associated with Industry.

According to **Abhijeet Pandurang Khondeet et al (2014)**, Among the students in Engineering institutes in Pune region, it was found that the industry institute collaboration has significant influence on the factors such as research & innovation, teaching & learning, employability. A real learning experience for the students were created while they were working on industrial problems to provide solutions innovatively.

The earlier research of Abhijeet Pandurang (2014) had used the four variables such as research and innovation, teaching and learning, employability, and knowledge transfer for the benefit impact on industry and institute collaboration. Based on the literature gap found, **Reena and Vimala (2023)** research have framed the conceptual work by adding two more variables called are Entrepreneurship and Incubation, and infrastructure development for the identification industry institute partnership and their career expansion.

Research Methodology

In order to attain the objective framed for the research, a structured questionnaire was prepared and supplied among the selected sample for the pilot study. Based on the opinion given by the respondents few repeated questions were deleted and constructed the final questionnaire by using eight constructs with 55 questions. All the eight constructs depicts the data requirement of industry and academia collaboration benefits, impacts and career expansion for both entities. The method used in this research is descriptive and random sampling method. Data collected from Heads, Dean, placement officers from universities and colleges. The collected data was analyzed by using simple frequency and mean to understand the weightage given for the statement under selected attributes for industry and academia collaboration. The conceptual framework adopted for this study is given below.



Conceptual frame work for this study

Findings and Discussions

The results and findings are derived from the collected data by using mean and standard deviations.

Table 1. Mean performance of respondent's perception on Research and Innovation

| Factors | Mean |
|--|------|
| Collaboration helps in Bridging Technology | 4.46 |
| Collaboration support safe and less cost research | 4.11 |
| Collaborative project research is useful for to develop new products | 4.26 |
| Collaborative project is appreciated by the agents for funding | 4.28 |
| Collaboration will support in knowledge and resource sharing | 3.86 |
| Output will be easy for pattern registration | 4.01 |
| Industries is not willing to work with institutions for research | 4.98 |

Table 1 inferred that the Industries are not willing to work with institutions for research found respondents highest mean score of 4.98. whereas collaboration helps in Bridging Technology found the mean score of 4.46, collaboration supports safe and less cost for research shows the mean score 4.11, collaborative project research is useful for to develop new products found 4.26 and the least mean score 3.86 found statement of collaboration will support in knowledge and resource sharing under the attribute of research and innovation.

Table 2. Mean performance for respondents' perception on Placements and Internships

| Factors | Mean |
|---|------|
| Collaboration sharply reduces internal training cost | 4.52 |
| Collaboration helps in increasing placements in institutes | 4.33 |
| Collaboration helps students for Internships and enhance their skills | 4.01 |
| Collaboration helps in skill enhancement for placement | 4.12 |
| Understand the right career through internship/apprenticeship | 4.83 |
| Ensures assured placements in certain level | 4.13 |
| Guideline to the placement cell for student's placement preparation | 3.89 |
| Compulsory internship program for students and industrial research | 3.27 |

Table 2 inferred that the collaborations supports the students to understand the right career through internships/apprenticeship found highest mean score of 4.83. whereas collaboration sharply reduces internal training costs found the mean score of 4.52, collaboration helps in increasing placements in institutes shows the mean score 4.33, collaboration ensures assured placements in certain level shows the mean score found 4.13 and the Collaboration helps in skill enhancement for placement shows mean score 4.12 the guidelines to the placement

cell for students placement preparation shows mean score of 3.89 and the least mean score of 3.27 found statement Promoting compulsory internship program for students and industrial research

Table 3. Mean performance for respondents’ perception on Teaching and Learning

| Factors | Mean |
|---|-------------|
| Collaboration helps in transforming teaching and learning | 3.96 |
| Collaboration is creating a real-world learning experience for students. | 4.32 |
| Collaboration is aimed at modernizing teaching and learning | 4.10 |
| Training by Industry Personnel will offer real time learning experience | 4.59 |
| Industrial Chairs/Endowments Sabbatical for Faculty to get real life work experience | 4.21 |
| Collaboration creates the domain and industry specific teacher in the institution for training the students | 4.56 |
| Collaboration offers Guest Lectures by Industry representatives | 4.22 |

Table 3 inferred that training by industry Personnel will offer real time learning experience found respondents highest mean score of 4.59. whereas collaboration creates the domain and industry specific teacher in the institution for training the students found the mean score of 4.56, collaboration is creating a real-world learning experience for students shows the mean score of 4.32, Collaboration offers Guest Lectures by Industry representatives shows the mean score 4.22, Industrial chairs/Endowments sabbatical for Faculty to get real life work experience found the mean score of 4.21 and the Collaboration is aimed at modernizing teaching and learning shows mean score 4.10 and the least mean score of 3.96 found statement Collaboration helps in transforming teaching and learning

Table 4. Mean performance for respondents’ perception on curriculum construction

| Factors | Mean |
|--|-------------|
| Collaboration helps in developing new curriculum relevant to the industries | 3.69 |
| Industry personnel plays a vital role in curriculum construction | 4.01 |
| New programs can be introduced through collaboration | 4.25 |
| Developed long-running individual programs to boost skills in the classroom | 4.58 |
| Adopting market concepts in education and R&D | 4.33 |
| Executive Education and Management Development Programs can be done for industries | 4.69 |

Table 4 inferred that executive education and management development programmes can be done for industries with highest mean score of 4.69, Institute-Industry looked at unemployment, mismatch of skills, jobs, and developed long-running individual programs to boost skills in the classroom with a mean score of 4.58, Adopting market concepts in education and R&D with a score of 4.33, New programs can be introduced through collaboration with a score of 4.25, Industry personnel plays a vital role in curriculum construction with a score of 4.01 and the least mean score of 3.69 for Industry Institute Collaboration helps in developing new curriculum relevant to the industries/programme

Table 5. Mean performance for respondents' Skill Development and CSR Support

| Factors | Mean |
|--|-------------|
| Student Development Programs are conducted by industries that are relevant to the market | 4.36 |
| Faculty Development Programs are conducted by the industries to upgrade the teacher's knowledge. | 4.66 |
| Industrial visit for the students and faculties | 3.67 |
| Online and short time certification through collaboration | 3.99 |
| EWS students are receiving scholarships from industries | 3.58 |
| Collaboration offers infrastructure development of Universities/Colleges | 3.56 |
| Students and institutions are benefitting financially and non-financially | 3.69 |

Table 5 inferred that faculty development programs are conducted by the industries to upgrade the teachers knowledge/experience with the highest mean score of 4.66, Student Development Programs are conducted by the industries that are relevant to the market with the mean score of 4.36, Online and short-term certification can be possible through collaboration with the score of 3.99, Students and institutions are benefitting financially and non-financially with the score of 3.69, Industrial visit for the students and faculties with the score of 3.67, Economically weaker section(EWS) students are receiving scholarships from industries with the score of 3.56 and the least score of 3.56 for Collaboration offers infrastructure development of Universities/Colleges

Conclusion

From the analysis, it is found that the industry and institution collaboration play a vital role in the growth and career expansion on faculty development, incubation and startups, placements, and skill development. The industry should work with the institutions for not only for the student's recruitment but they must work with the academicians for research and development. This will mutually benefit both the entities for commercialization of research and product development. The institution and industries have to travel in parallel for the betterment of the society and its own. So the local industries have to come forward to work with the institutions for better academic and corporate culture.

References

- Planivelrajan and Vimala (2023), Unlocking Industry 4.0: Leveraging Academic Collaborations for Career Advancement and Insights. *International Journal of Science and Research (IJSR)*, Volume 12, September 2023.
- Reena and Vimala (2023), Industry Institute Collaboration on career growth of the Arts and Science Institutions and its significant influence - A Study. *Journal of Interdisciplinary Cycle Research*, January 2023, page no.32-40.
- Palanivelrajan and Vimala (2023), Empowering Career Advancement and Insights: Harnessing Employee Competencies in Industry 4.0". *International Journal of Engineering (TIJER)*, Volume 10, September 2023, page no. 94-102
- Sabai Khin, January (2022), Factors influencing Industry 4.0 adoption, *Journal of Manufacturing Technology Management*, DOI:10.1108/JMTM-03-2021- 0111
- The Fortune at the Bottom of the Pyramid: Eradicating Poverty through Profits. Upper Saddle River: Wharton School Publishing. Rettig, M. (2004). "Interaction Design History in a Teeny Little Nutshell (version 1.5).
- Sampson, F. (2005). "User Experience: Why Do So Many Organizations Believe They Own It?" *ACM Interactions*, 12(1), January/February 2005, 7-9.
- Sutliff, K. (2000). Integrating Academics and Industry: A Challenge for Both Sides. *ACM Journal of Computer Documentation*, 24(1), February 2000, 33-38.
- Sherman, S., I. Hadar, and G. Luria (2018) leveraging organizational climate theory for understanding industry-academia collaboration. *Information and Software Technology*, 98: p. 148-160
- Peters, D. and A. Lucietto (2016), A Survey of Types Of Industry-Academia Collaboration. In *ASEE 123rd Annual Conference and Exposition*. New Orleans, LA.
- Wohlin, C., et al., (2012), the success factors powering industry-academia collaboration. *IEEE software*. 29(2): p. 67-73.
- Baytiyeh, H. and M. Naja, (2012), identifying the challenging factors in the transition from colleges of engineering to employment. *European Journal of Engineering Education*, 37(1): p. 3-14.
- Whyte, J. and Bessant, J. (2007), Making the most of UK design excellence: equipping UK designers to succeed in the global economy, Tanaka Business School, Imperial College London.
- Trunk, P. (2007). "What Gen Y Really Wants," *TIME Magazine*. July 5, 2007. <http://www.time.com/time/magazine/article/0,9171,1640395,00.html> University of Illinois at Chicago (2006) "Donor Spotlight: Motorola Sponsors, IPD Course," *BIZ*, Spring 2006.