Determinants Of Job Opportunities In Skill Development Institutions: Indian Perspective

Manoj Kumar, Suresh Kumar Garg and Shraddha Mishra

In a fast-growing economy like India and having a comparatively young population, education, especially skill-based education, plays an important role. In the last two decades' emphasis has been placed on this through education policy interventions at all levels of governance. Despite this, the impact is not sufficient. There is a need for the industry to associate with skill development institutions for need-based effective management programmes. This paper attempts to study the students' perceptions of the skill development programmes and their efficiency in providing better job opportunities. The study shows a significant role of trainers, industry connections and institutes infrastructure in giving better jobs opportunities to the trainees of skill development institutes.

KEYWORDS: Skill Development, Industry Support, Institution Management

Introduction

Growth of India will pick up the pace in economic sense only if the adolescence of our country will get vocational education and acquire relevant skills. The impending need of employability skills have been advocated disputed for increasing work outcomes and helping citizens in adapting with changes and improving upon their career opportunities in the workplace (Yusof, Mustapha,

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Mohamad, & Bunian, 2012). In Indian economy the literacy level is increasing day by day, however, the increase in unemployable literate is as an area of concern for the country. Ministry of education has made a lot of efforts to turn down the situation and encouraged vocational education in order to increase skills among the youth. Indian educational institutions have been facing several challenges in getting world-class status or global rankings (Banker & Bhal, 2020).

Today's employers demand different types of skills from their employees and workers than they were in the earlier period as a result of technological advancement and globalization process (Cinaret et al., 2009). In different words, now a day's workplaces require workers and employees with high technical skills attached with developed employability skills (G. K. G. Singh & Singh, 2008). Krishnan et al., (2019) stated that automation along with industrial transformation will impact working skills and other skills set in India.

The key issues that need to be addressed are as follow: what kinds of skills will be needed for future of workplaces and how can we craft our youth resilient as well as adaptable to these kind of change by incorporating lifelong learning, up-skilling and re-skilling. For creating capable global skilled workforce, skilling has to be an amalgamation of knowledge, aptitude, attitude and the appropriate competencies needed to perform various job roles. Education for all religion come in through the process of vocational education and it poses the various global education challenges (Marshall, 2010).

At this juncture when world is looking at Indian Skill Development Programmes and when Indian human resources are needed all across the globe, it is important to maintain quality assurance of these programmes. Industrial collaborations with institutes of trainings have proven successful model in developed countries like Germany, Finland, Brazil, etc. Though Skill development has become the buzz word in India and all stakeholders understand importance of skill development, it is important that efforts for the same may be synchronized with clear understanding of roles of each stakeholder.

The study tries to examine the students' perceptions towards the skill development programmes and its efficiency for providing better job opportunities to them. The study proposes the theoretical background mentioned in Figure 1. The paper is sub-divided into six sections. First section is about the introduction and basic background of study. Second section presents the Literature review, third section is about the research methodology and subsequent two sections are about the findings and discussion. Last section of the paper tries to bring out the conclusion and its implication with future research avenues.
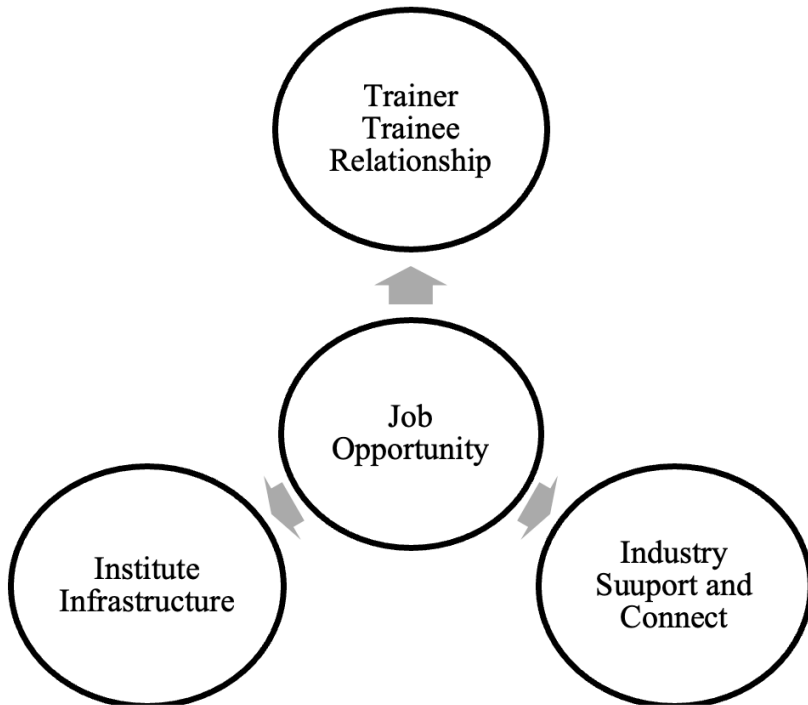
Figure 1. Theoretical Framework

REVIEW OF LITERATURE

The section of literature review examines the available studies on vocational education and skill development. It provides a basic background for a larger research, which is sub divided into three segments, i.e., 'Education and Infrastructure', 'Industry Support and Employability' and 'Trainer - Trainee Relation and Employability'. The literature is classified on the basis of the diverse nature of parameter to be considered for study. The reviews done in the study are not restricted to India but we have also tried to explore the condition of vocational education in other economies.

Education and Infrastructure

As per Agarwal (2007) for building of fully integrated education system in India, there is elongated path ahead because the confrontation is not limited to the regulatory framework used in Higher Education but other dimensions are also there. The major challenge is that vocational education is normally

perceived as an inferior education as compared to formal education and resultant in forcing the individual students to land up within the formal education system.

Erasmus and Breier (2015) found that almost all sectors of the economy usually suffer from scarcity of professionals and artisans; organizations, business units and government have the same opinion that there are huge shortages of technicians, artisans and engineers (Sheppard and Ntenga, 2014). Stahl et al. (2012) encompass that most of the companies have already established a world class training centres and huge learning campuses; they have already started working with the best institutes and universities in the world, where they are using the latest development being done in leadership for crafting and utilizing tools and technologies for making the best talents.

As per contemporary studies on skill development in technical education, Authors, Greenan, Humphreys, and McIlveen (1997) explored that programmes ought to concentrate on students' needs and be more intuitive in outline; curriculum advancement and on using proper educational methods which upgrade learning and create authority and relational aptitudes.

Industry Support and Employability

Nerdrum and Erikson (2001) have emphasized the importance of human capital and stated that the source of growth of any organization or nation has always been human capital and mental and physical and physical abilities and human resources are considered as prolific economic agents. Murphy et al., (1999) have advocated that on- job training and industry mentoring are the suitable and well accepted methods for the development of staff. P Pfeffer and Jeffrey (1998) suggested a list of human resource (HR) practices that are being adopted by the effective firms. One of the prominent practices is to make high investment in training and skill development.

J. P. Robinson (2000) has defined employability skills as the basic skills essential for getting job done and doing well on the job or work. Morrison and Hall (2002) found that employability skills are likely to smooth the progress of jobs within and among the organizations. McArdle, Waters, Briscoe, and Hall (2007) had proposed that employable individuals or trainee always obtain themselves into a proactive approach to fit into place in the domestic market and labour market. Better employability skill could also support employees to fine tune themselves as per the various changes obligatory to augment working skills or abilities which is as per the environmental needs of the workplace and demand of market (Kazilan, Hamzah, & Bakar, 2009).

Cranmer (2006) had noticed that there is high mismatch between the skills taught at school level and the skills actually desirable in job employment.

Therefore, youngsters or students entering in the skilled labour market segments are new or prone to take up anything available in the market than to decide or choosing the jobs meant for them (Hopper, 1977). Equally, there is occurrence of a mismatch between them and their jobs to high extent (Takase, Nakayoshi, & Teraoka, 2012).

Explorative activities and developmental activities are not linked with previous work experience (Savickas et al., 2009). It has been demonstrated in industry that skills of employability are significantly helping adults in adapting changes and improving upon the skills with better career opportunities in their respective workplace (Rasu et al., 2010). Results postulated that employability skills are significantly and positively correlated with adaptability of good career opportunities.

Trainer and Trainee Relation and Employability

Faculty or Trainer's commitment and their friendly behaviour with the trainees or students are always considered as an important factor by many scholars in the recent studies. (Hue, 2010; Tabbodi, 2009; Tiwari, 2019). Impact of vocational education training and its reforms on the educational practices of any economy has been noticed by numeral research studies (Hedberg & Harper, 1996; Mulcahy, 1996; V. M. Robinson & Robinson, 1993; Sanguinetti, 1994; Smith, 1997).

Billett (1999) has noticed that the execution of a unified or singular curriculum based framework have imposed throughout the years of training and the related reform has destabilized the educators' autonomy. Administrations of education in economy have conventionally had immense expectations of their training institute which provides vocational education and strengthens the training systems (Maurer, 2012). The augmentations of the entire global economy, with its associated social process are now permitting the smooth flows of information across national capital boundaries (Lingard, Knight, & Porter, 1994; Seddon, 1999). The importance of curriculum and the delivery of the content by trainers or faculty are also registered as an important factor in the education sector (Bhadwal & Panda, 1991; Hue, 2010).

The growth of 'new competitive state' has also been promoted from intervention done by governments organizations in favour of existing market forces this also acts as the 'primary steering mechanism' for the nation (Lingard et al., 1994). Education always serves for global or national interests and the development of human capital. Influence of globalizations as well as technology on the character of work along with the structure of the existing workforce has been registered by many researchers (Attwell, 1997; Waterhouse et al. 1999; Young & Guile 1997). Based on literature review collected from sociology and history

of education sector, (Benavot, 1983) portrayed few viewpoints that exist on the rise of vocational education in the economy during early twentieth century. Modern culture and its characteristics will always powerfully influence the human values and the choices; these choices have the huge range of issues that exist within the economy. These values are highly pushing the trainees to consider innovative ways of thinking and inducing new skills gained by the vocational educations (M. Singh, 2013).

The review suggests that any linkage between these important factors of skill-based education or vocational education is still not much explored. Hence, this study will make an attempt to establish relationship among the following three segments, i.e., Education and Infrastructure, Industry Support and Employability and Trainer - Trainee Relation and Employability.

Research Methodology

In the existing literature, to examine educational efficiency, three main research approaches were employed: a literature review; individual interviews or questionnaire and focus group discussions. The approach to gather the data in this study is deliberately focused on interviewing through questionnaire, since an interview scale on the changing role of vocational education training staff development is given by Harris et al. 2005. In view of the fact that general group discussion only generates the contextual information, the researchers firmly believe that there is the need of information to be collected from the individuals to enable a basic understanding of the perception, preference and personal impact of these changes. In this study, the conviction was to test that what trainee say in general group discussion or in friends may be differently reflected with what is happening personally around them. This is empirical research done on the basis of review of literature; the study has formed a self-administered questionnaire, which is developed for passed out, existing and potential trainees of skill development institutes and vocational educational institutes. The questionnaire includes 37 items to elucidate the factors affecting the employability of individual trainees or students of skill development institution. The collected data is analysed with the help of various statistical techniques like exploratory with confirmatory factor analysis and generalized linear model, these were performed with the help of computer software R Jamovi package 1.0.0. The sample of 515 trainees or students has been collected from the population size of 5155 students in NCT of Delhi, India. The sample size was considered by using the formula for sample size as mentioned in Hulley, Newman, and Cummings (2007).

The sample of 515 represents the total population size of 5155 students undergoing through training, as on 31st December 2019 in the respondent insti-

tutions. As suggested by Cochran (1977), we have considered almost ten percent of the population size. We had circulated the survey to 650 respondents but only 521 responses were received back. The response rate was 80.15 percent. However, only 515 were considered for the final analysis. To calculate the sample size (515) and oversampling of the sample size has been done to solve the issue of non-respondents in sampling suggested by Donald (1967), Hagbert (1968) and Johnson (1959). For the final research and analysis, the sample of 515 samples has been found suitable and further used in the study.

Demographic Characteristics

The respondents' profile has been sub-categorized on the basis of education, income, area of residence, salary expectation and expected sector of employment (Table 1).

Table 1

Demographic Characteristics.

Components	Choice	f	%
I joined course after my education up to	8th class	28	5.44
	10th class	129	25.05
	12th class	241	46.80
	Graduation	107	20.78
	Any Other	10	1.94
I joined course because I wanted to get a good employment. My choice from the given sectors	Govt. Sector	265	51.46
	Public Sector	157	30.49
	Private Sector	30	5.83
	To be a part of my family business	28	5.44
	To start my own business	35	6.80
After completing this programme, I expect to get pay package	Minimum wages fixed by govt.	31	6.02
	Less than 15,000	52	10.10
	15,000 to 20,000	138	26.80
	20000 – 25000	178	34.56
	More than 25,000	116	22.52
After completing this programme, I expect to enter into a job profile of	A shop floor employee	29	5.63
	Executive	165	32.04
	Marketing Executive	103	20.00
	Service Executive	117	22.72

Table 1 continued

Components	Choice	f	%
	Liaison officer	91	17.67
	Any Other	10	1.94
	Graduation	41	7.96
After school education	Job	116	22.52
what is your first	Short skill training	136	26.41
preference	Diploma	106	20.58
	ITI	116	22.52
Area	Rural	220	42.72
	Urban	295	57.28
	Less than 3 lakh	71	13.79
	3.1 lakh - 5 lakh	90	17.48
Family Annual Income	5.1 lakh - 7.25 lakh	209	40.58
	7.26 lakh - 10 lakh	115	22.33
	More than 10 lakh	30	5.83

f - Frequency Source: Authors Compilation

Study has considered the students of only those institutes where the skill-based education is being carried out. In the study 42.72 percent of the respondents were from the rural areas and rests are from the urban areas. The family income suggest that 40.58 percent of the respondents are from the income group of five to seven lakhs of income group and the second highest frequency of 115 respondents are from the second income group, which suggest that the higher the income group the lower the chances of the person to opt for the skill-based education. The reason behind this is that high income group prefers to send their wards for professional education as compared to the skill-based education.

Approximately 32.04 percent of the trainees are aspiring to become the executives, just after the completion of their skill-based education and 51.46 percent of them are aspiring for the government jobs after the completion of the course as they believe that the course has been initiated by the government of India. Hence, Government should accept their candidature in the public sector jobs or the government department jobs. Out of total respondents, 46.8 percent of the student joined the institute just after their senior secondary level and 25.05 percent has joined the course after their secondary level education. Most of the institute's courses are basically the skill-based course hence, it loses its importance after the graduation. Table 1 reveals that Soft skill training is the major preference of the students to learn just after the school education. However, second preference has been given to job and training. The subsequent preference is gaining diploma and pursuing other graduation degree.

Factor Analysis

Factor analysis is a popular approach that has been extensively used in management and social sciences. Factor analysis is a statistical methodology that takes an exploratory and confirmatory approach to data analysis for inferential purposes (Byrne, 2001). Essentially, as the study is trying to develop a new framework, the entire analysis may be viewed as a combination of exploratory factor analysis and confirmatory analysis with mediation and moderation effects among the factors (Ullman, 2001). Hence, the study has taken the support of factor analysis in order to satisfy the objective.

Cronbach alpha test was performed in the study to check the reliability of questions taken in the questionnaire (Cronbach, 1951). Further, in order to assess the suitability of the data for principal component analysis, the uniqueness derived from the factor analysis were also assessed through KMO and Barlett test. The results of different factors for reliability and sample adequacy are given in Table 2. The Cronbach's alpha test resulted in 94.5 percent of scale reliability. It indicates that the internal consistency of the selected scale is good (Bohrnstedt & Knoke, 1994). KMO and Bartlett's test (Table 2) which measures the sampling adequacy was done to test the eligibility of the data. The value of KMO is 0.945 > 0.5, this value was observed and it indicates multivariate normality amongst variables. As the significance value observed in the research is less than 0.05, hence, factor analysis was performed consequently.

Table 2

KMO and Bartlett's Test .

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.945
Bartlett's Test	Chi-square	13384
	Degree of Freedom	595
	Sig.	.001

The items in the respective construct were individually subject to principal component analysis (PCA) with varimax rotation and it is based on Eigen value. 'Maximum likelihood' extraction method was used in combination with a 'varimax' Rotation. Literature suggests that items having factor loadings less than 0.5 can be eliminated (Hair et al., 2005). However, we have eliminated only those items which shows the loading less than 0.35 and the items showing the cross loadings. All having Eigen values of unity and above were removed (Hair et al., 2005). The results of factor loading are shown in Table 3.

Table 3

Principal Component Analysis.

Constructs	Items/Variables	1	2	3	4
Institute Infrastructure	S5	0.888			
	S24	0.828			
	S25	0.792			
	S8	0.759			
	S7	0.754			
	S10	0.747			
	S6	0.735			
	S23	0.682			
	S17	0.594			
	S22	0.555			
	S26	0.554			
	S14	0.505			
Trainer Trainee Relation	S35		0.861		
	S33		0.797		
	S31		0.785		
	S36		0.772		
	S30		0.746		
	S9		0.718		
	S32		0.617		
	S29		0.588		
	S18		0.507		
	S20		0.496		
Industry Support	S1			0.809	
	S2			0.763	
	S13			0.727	
	S4A			0.716	
	S12			0.695	
	S4			0.638	
	S11			0.610	
	S3			0.608	
	S16			0.603	
	S37			0.449	
Job Opportunity	S27				0.555
	S21				0.474

Based upon the analysis shown in Table 3, we may suggest that as per the student's perspective, the four major constructs or factors that are involved in attaining effective skill-based education. As per the statements asked into

questionnaire, the study proposes to frame four constructs, namely, job opportunity, industry support, institute infrastructure and trainer-trainee relationship. The uniqueness score is fairly large for all the items as shown in Table 3; this suggests the appropriateness of data set (Stewart, 1981). Scree plot and factor analysis summary suggests that only four factors explain the 60.1 percent of cumulative variance. SS loadings suggest the sum of the squared loadings. This is used to determine the value of the particular factor. Results also determines the variance explained by individual factor and cumulative factors. Total cumulative variance is received as 60.10 percent for the scale.

FINDINGS OF THE STUDY

Through the factor analysis, we have got four constructs or factors for our study. The varimax rotation suggests that these four constructs include several variables as mentioned in Table 3. To substantiate our results, the confirmatory factor analysis has been employed and results are shown in Table 4. Analysis shows that the items drawn after the exploratory factor analysis are statistically fit for their corresponding factors. The factor loadings show the variance among the items.

Table 4

Factor Loadings

Factor	Indicator	Estimate	SE	Z	P
Institute Infrastructure	S5	1.123	0.0473	23.71	< .001
	S6	0.791	0.0441	17.93	< .001
	S7	0.829	0.0434	19.11	< .001
	S10	1.034	0.0506	20.44	< .001
	S14	0.571	0.0448	12.74	< .001
	S17	0.651	0.0354	18.39	< .001
	S22	0.581	0.0350	16.58	< .001
	S23	0.806	0.0436	18.47	< .001
	S24	1.232	0.0512	24.05	< .001
	S25	1.132	0.0482	23.46	< .001
	S26	0.853	0.0510	16.71	< .001
Trainer Trainee Relation	S1	0.802	0.0377	21.25	< .001
	S2	0.642	0.0322	19.94	< .001
	S3	0.607	0.0357	17.00	< .001
	S4	0.642	0.0362	17.73	< .001
	S4A	0.592	0.0329	18.01	< .001
	S11	0.586	0.0402	14.57	< .001

Table 4 continued

Factor	Indicator	Estimate	SE	Z	P
	S12	0.664	0.0351	18.89	< .001
	S13	0.736	0.0363	20.25	< .001
	S28	0.351	0.0372	9.43	< .001
	S37	0.457	0.0382	11.94	< .001
Industry Support	S9	0.757	0.0376	20.13	< .001
	S18	0.572	0.0353	16.20	< .001
	S20	0.583	0.0372	15.65	< .001
	S28	0.300	0.0363	8.24	< .001
	S29	0.637	0.0384	16.59	< .001
	S30	0.861	0.0408	21.12	< .001
	S31	0.823	0.0414	19.91	< .001
	S32	0.613	0.0359	17.09	< .001
	S33	0.869	0.0373	23.33	< .001
	S35	0.903	0.0403	22.42	< .001
	S36	0.858	0.0384	22.32	< .001
Job Opportunity	S27	0.575	0.0371	15.50	< .001
	S21	0.729	0.0384	18.97	< .001

The results reveal that there are four constructs involved in attaining effective skill-based education for better jobs in industry such as: job opportunity, industry support, institute infrastructure and trainer-trainee relationship. Job opportunity as a latent variable includes two statements, industry support and institute infrastructure as another latent variable includes 11 statements each and trainer-trainee relation include 10 statements. The detail of the estimates, Z statistic and P value is also mentioned in Table 4.

The estimates and related significance value with covariance suggest that almost all the variables considered in the study are significant as compared to the construct like demographics which are not significant for confirmatory factor analysis. Hence, in path analysis also bring the co-variating impact of one variable on another. Factor estimates can be determined through the factor covariance as given in Table 5 and the path analysis. The path analysis reveal the co-variation effect of one factor on another and further Figure 2 shows the direct and indirect effect of one factor on another. Results suggests that there is a good correlating relationship among all the variables.

Table 4 and 5 reveals the significant factors of the study. Hence in the study four constructs have been formed, i.e., institute infrastructure, trainer and trainee relationship, industry support and job opportunities available in the industry. Somehow the statistical data in Table 5 supports the consideration of all four constructs in our study. Covariance talks about the co-

Table 5

Factor Covariances.

Construct	Covariance	Estimate	SE	Z	P
Institute Infrastructure	Trainer Trainee Relation	0.37	0.04	8.62	< .001
	Industry Support	0.44	0.03	11.50	< .001
	Job Opportunity	0.59	0.03	15.23	< .001
Trainer-Trainee Relationship	Industry Support	0.42	0.04	10.64	< .001
	Job Opportunity	0.48	0.04	10.75	< .001
Industry Support	Job Opportunity	0.74	0.03	23.02	< .001

movement of one factor with another factor which represents that one factor cannot work efficiently without the contribution of another factor in the study. Table 5 and 6 supports the path diagram and shows the co-variance relationship among the variables. The robustness of the model (shown in Table 6) can be judged by the goodness fit indices and badness fit index and it can be obtained through the path analysis as well.

Table 6

Model Fit Data.

Test for Exact Fit	
χ^2	3317
Df	488
P	<.001
Fit Measures	
CFI	0.765
TLI	0.746
SRMR	0.110
Lower (RMSEA 90% CI)	0.103
Upper (RMSEA 90% CI)	0.110
AIC	39526
BIC	39976

The chi-square test measures the exact fit and the value revealed in the model is significant at 5 percent confidence level. Goodness-of-Fit can be measured by Comparative Fit Index (CFI) and Tucker Lewis Index (TLI). Comparative Fit Index (CFI) measures the incremental fit, which is 0.765, with the prescribed range of 0 to 1 being acceptable and the higher values indicating a better fit which is good for CFI. Tucker Lewis Index (TLI) also indicates the Goodness-of-fit index, the value of TLI as 0.746 was found in our study and the said values are within the prescribed limit of 0 to 1. Root Mean Square Error of Approximation (RMSEA) measures the Badness-of-Fit index and the value of RMSEA is 0.103 was found to be acceptable, as 0.10 is the well recommended limit for the acceptance of models, with lower RMSEA values is 0.110 which indicates a better fit model.

Cudeck and Browne (1983) established AIC and BIC to perform a cross-validation, with Akaike information criteria (AIC) being slightly liberal and Bayesian information criterion (BIC) being more conservative than AIC. Homburg (1991) applied AIC and BIC measures to SEM (structural equation modelling) and suggested that both AIC and BIC are performing well at identified level in the data-generating model. The higher the values of AIC and BIC the better the model is and here the results suggest that the value of BIC is better than AIC as shown in Table 6. All the latent variables considered in the study are interrelated and the structural model was revealed between the entire latent variable and are statistically significant. The estimates of all the variables considered in the study are shown in Table 5 with their respective p-values. Through model fit, we can say that these constructs are validated and can be used for any linear predictive modelling. To understand the dependencies of job opportunities in skill development institute we have applied general linear model. For models without interactions, Table 7 shows the indirect effects (mediated), the direct effects, and the total effects. The main predictive equations can be proposed in the given way.

Full Model of the study is given below:

Job opportunity ~ Industry Support + Institute Infra + Trainer Trainee Relation (1)

After taking Industry Support and Institute Infra as Mediators two indirect effect models are:

Trainer Trainee Relation $\Rightarrow$ Industry Support $\Rightarrow$ Job opportunity (2)

Trainer Trainee Relation $\Rightarrow$ Institute Infra $\Rightarrow$ Job opportunity (3)

The direct effects are the effects computed keeping the mediator's constant, thus the un-mediated effects. The total effects are the effects computed without the mediators, or, equivalently, the sum of the indirect and the direct effects. Mediators are variables expected to mediate the indirect effects. In this study

no demographic variable has been found significant to put mediating impacts on the model. The basic framework of the study suggests the model mentioned in Figure 2.
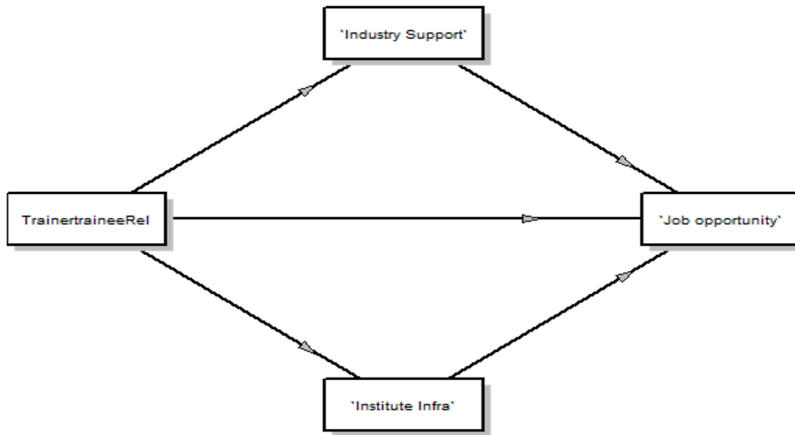

Figure 2. Model Diagram

The study shows the direct effect of Trainer-trainee relation lies on Job opportunity of a trainee or students. Supplementary to this finding one finding suggests that job opportunity of a student depends on the institutes infrastructure, industry support and trainer trainee relation as shown in full model of Table 7. The mediating effects suggest that a mediator construct intervenes the relation of two constructs. Here the finding suggests that institutes infrastructure, industry support is two mediators that influence the job opportunity of students and its direct effect with trainer trainee relation. In other words, we may conclude that trainer trainee relations will only the help to seek better job opportunity when there is better institutes infrastructure as well as industry support.

The findings suggest that the job opportunities of the students depend upon the kind of relationship that exists between the trainer and trainee, the better the relation will lead to better learning environment and thus to better understanding of the skills and the concepts. Table 8 reveals the model information and it includes a two-mediator model, a full model and two models with indirect effect of trainer trainee relationship with the job opportunity. This result may also suggest that the trainer trainee relationship works out well in the situation of better industry support and the institutes' infrastructure. The same has been show through mediation analysis shown in Table 7.

Table 7

Mediation Analysis.

Indirect and Total Effects						
Type	**Effect**	**Estimate**	**SE**	**β**	**Z**	**P**
Indirect	Trainer-Trainee Relation-Industry Support-Job opportunity	0.05	0.005	0.24	9.18	< .001
	Trainer-Trainee Relation-Institute Infrastructure-Job opportunity	0.01	0.003	0.09	5.52	< .001
Component	Trainer-Trainee Relation-Industry Support	0.54	0.041	0.50	13.15	< .001
	Industry Support-Job opportunity	0.09	0.007	0.49	12.82	< .001
	Trainer-Trainee Relation-Institute Infrastructure	0.59	0.062	0.38	9.56	< .001
	Institute Infrastructure-Job opportunity	0.03	0.004	0.24	6.75	< .001
Direct	Trainer-Trainee Relation-Job Opportunity	0.02	0.0	0.10	2.68	0.007
Total	Trainer-Trainee Relation-Job Opportunity	0.09	0.008	0.43	11.04	< .001

Discussion And Conclusions

The paper focuses on the Indian education system and also considers it as an essential precondition for the employability and productivity of youth. Through this study, an effort has been made to develop guidelines that may prove milestone in the direction of industrial collaboration in educational institutions particularly for the purpose of skill development. Various aspects of skill development institutions have been studied through this empirical analysis with a special focus on role of industry.

The study suggests that Trainer Trainee relationship is really important for better job opportunity. Faculty or Trainer's commitment and their friendly behaviour with the trainees or students are always considered as an important factor by many scholars in the recent studies for getting better jobs in industry. (Hue, 2010; Tabbodi, 2009; Tiwari, 2019). The employability skills in marketplace refers to general as well as nontechnical competencies mandatory for performing almost all jobs in the industry, regardless of levels of jobs or its type (Ju, Zhang, & Pacha, 2012). There are many studies which have shown that the relevant job role of industry is dependent upon the industry connect or industrial training given to the students (Bynner, 2001; Gutman & Schoon, 2012). The study has proposed the linkage between industry connect, institutes infrastructure and job opportunities for trainees (Sherer & Eadie, 1987).

Nurturing skill-oriented training in India could be considered as a significant channel for improvising the working conditions of youth or individuals, as well as it can boost the employability of those trainees who are quite vulnerable in terms of skill set. Expansion of the skill development institutions is essential because of industry requirements of skilled manpower (Ahmad & Buchanan, 2016). These institutions mainly prepare the trainees for employment in the formal sector of industry. In this study, student perceptions for the skill development programme were collected and analysed by conducting exploratory factor analysis and other tests with the help of software R Jamovi 1.0.0 package. Through this study, an effort has been made to develop a model for improving the skills and employability of the students with industrial collaboration. The model suggests that the trainer trainee relationship works out well in the situation of better industry support and the institutes' infrastructure. The finding is similar to the research of Tooley (2005).

Therefore, the suggestion has been given to the policy makers that industry support with better industry connect in terms of industrial training and placement training is the need of the hour. It is also noticed that the institutes' infrastructure is not very well equipped as per students' perception. The improvement in infrastructure will lead to better training and skill development opportunities. Indian skills and innovations are not new to the world, glimpse of ancient Indian sculptures; carpentry, weaving, foundry and other crafts are quite evident from the archaeological remains of ancient Indian history. Therefore, it is recommended that skill development institutes and vocational education institutions should enhance the infrastructure and various industrial training lecturers, the similar findings were presented by Rahman et al., 2015. The future scope of the study suggests that as the students or trainee's perspective has been registered in the paper, similarly the trainer's point of view will enhance the importance of this study and will also provide a broader view to bridge the gap between employability raised by skill development institutes in India. The results also suggest that better relationship with

the trainer improves the employability skill of the trainers and also promotes industry connect.

REFERENCES

Agarwal, P. (2007). Higher education in India: Growth, concerns and change agenda. *Higher Education Quarterly*, *61*(2), 197-207.

Ahmad, S. Z., & Buchanan, F. R. (2016). Choices of destination for transnational higher education: "pull" factors in an Asia Pacific market. *Educational Studies*, *42*(2), 163-180. https://doi.org/10.1080/03055698.2016.1152171

Banker, D. V., & Bhal, K. T. (2020). Creating world class universities: Roles and responsibilities for academic leaders in India. *Educational Management Administration & Leadership*, *48*(3), 570-590. https://doi.org/10.1177/1741143218822776

Bhadwal, S. C., & Panda, P. K. (1991). The Effect of a Package of Some Curricular Strategies on the Study Habits of Rural Primary School Students: a year long study. *Educational Studies*, *17*(3), 261-271. https://doi.org/10.1080/0305569910170304

Bynner, J. (2001). Childhood risks and protective factors in social exclusion. *Children & Society*, *15*(5), 285-301. https://doi.org/10.1002/chi.681

Cochran, W. G. (1977). The estimation of sample size. In *Sampling techniques* (3rd ed., p. 72-90). John Wiley & Sons.

Cranmer, S. (2006). Enhancing graduate employability: Best intentions and mixed outcomes. *Studies in Higher Education*, *31*(2), 169-184.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, *16*(3), 297-334. https://doi.org/10.1007/bf02310555

Cudeck, R., & Browne, M. W. (1983). Cross-Validation Of Covariance Structures. *Multivariate Behavioral Research*, *18*(2), 147-167. https://doi.org/10.1207/s15327906mbr1802$_2$

Greenan, K., Humphreys, P., & McIlveen, H. (1997). Developing Work-based Transferable Skills for Mature Students. *Journal of Further and Higher Education*, *21*(2), 193-204. https://doi.org/10.1080/0309877970210205

Gutman, L. M., & Schoon, I. (2012). Correlates and consequences of uncertainty in career aspirations: Gender differences among adolescents in England. *Journal of Vocational Behavior*, *80*(3), 608-618. https://doi.org/10.1016/j.jvb.2012.02.002

Hedberg, J., & Harper, B. (1996). Interactive educational technologies: Effective design and application in the classroom. *3rd International Interactive Multimedia Symposium*, 160-168.

Hue, M. T. (2010). The challenges of making school guidance culturally responsive: Narratives of pastoral needs of ethnic minority students

in Hong Kong secondary schools. *Educational Studies*, *36*(4), 357-369.

Hulley, S. B., Newman, T. B., & Cummings, S. R. (2007). Choosing the study subjects: specification, sampling, and recruitment. *Designing Clinical Research*, *3*, 27-36.

Johnson, P. O. (1959). Development of the Sample Survey as a Scientific Methodology. *The Journal of Experimental Education*, *27*(3), 167-176. https://doi.org/10.1080/00220973.1959.11010620

Ju, S., Zhang, D., & Pacha, J. (2012). *Employability Skills Valued by Employers as Important for Entry-Level Employees With and Without Disabilities* (Vol. 35). SAGE Publications. Retrieved from https://dx.doi.org/10.1177/0885728811419167

Kazilan, F., Hamzah, R., & Bakar, A. R. (2009). Employability skills among the students of technical and vocational training centers in Malaysia. *European Journal of Social Sciences*, *9*(1), 147-160.

Lingard, B. V., Knight, J., & Porter, P. (1994). Restructuring Australian schooling: Changing conceptions of top-down and bottom-up reforms. *School and community relations: Participation, policy, practices*, 81-99.

Marshall, K. (2010). Education for all: where does religion come in. *Comparative Education*, *46*(3), 273-287.

Maurer, M. (2012). Structural elaboration of technical and vocational education and training systems in developing countries: the cases of Sri Lanka and Bangladesh. *Comparative education*, *48*(4), 487-503.

McArdle, S., Waters, L., Briscoe, J. P., & Hall, D. T. T. (2007). Employability during unemployment: Adaptability, career identity and human and social capital. *Journal of Vocational Behavior*, *71*(2), 247-264. https://doi.org/10.1016/j.jvb.2007.06.003

Mulcahy, D. (1996). Performing competencies of training protocols and vocational education practices. *Australian and New Zealand Journal of Vocational Education Research*, *4*(1), 35.

Pfeffer, J., & Jeffrey, P. (1998). *The human equation: Building profits by putting people first*. Harvard Business Press.

Robinson, J. P. (2000). What are employability skills. *The workplace*, *1*(3), 1-3.

Robinson, V. M., & Robinson, V. M. (1993). *Problem-based methodology: Research for the improvement of practice*. Oxford: Pergamon Press.

Sanguinetti, J. (1994). Exploring the discourses of our own practice: a case study. *Australian Journal for Adult Literacy Research and Practice*, *5*(1), 31-31.

Savickas, M. L., Nota, L., Rossier, J., Dauwalder, J.-P., Duarte, M. E., Guichard, J., … van Vianen, A. E. (2009). Life designing: A paradigm for career construction in the 21st century. *Journal of Vocational Behavior*, *75*(3), 239-250. https://doi.org/10.1016/j.jvb.2009.04.004

Seddon, T. (1999). A self-managing teaching profession for the learning society. *Unicom*, *25*(1), 15-29.

Sherer, M., & Eadie, R. (1987). Employability skills: Key to success. *Thrust*, *17*(2), 16-17.

Singh, G. K. G., & Singh, S. K. G. (2008). Malaysian graduates' employability skills. *UNITAR e-Journal*, *4*(1), 15-45.

Singh, M. (2013). Educational practice in India and its foundations in Indian heritage: A synthesis of the East and West. *Comparative Education*, *49*(1), 88-106.

Smith, L. A. (1997). Open education revisited: Promise and problems in American educational reform (1967-1976). *Teachers College Record*, *99*(2), 371-415.

Stahl, G., Björkman, I., Farndale, E., Morris, S. S., Paauwe, J., Stiles, P., … P (2012). Six principles of effective global talent management. *Sloan Management Review*, *53*(2), 25-42.

Stewart, D. W. (1981). The application and misapplication of factor analysis in marketing research. *Journal of Marketing Research*, *18*(1), 51-62.

Tabbodi, M. L. (2009). Effects of leadership behaviour on the faculty commitment of humanities departments in the University of Mysore, India: regarding factors of age group, educational qualifications and gender. *Educational Studies*, *35*(1), 21-26. https://doi.org/10.1080/03055690802288510

Takase, M., Nakayoshi, Y., & Teraoka, S. (2012). Graduate nurses' perceptions of mismatches between themselves and their jobs and association with intent to leave employment: a longitudinal survey. *International Journal of Nursing Studies*, *49*(12), 1521-1530. https://doi.org/10.1016/j.ijnurstu.2012.08.003

Tiwari, A. (2019). The corporal punishment ban in schools: Teachers' attitudes and classroom practices. *Educational Studies*, *45*(3), 271-284.

Tooley, J. (2005). Management of Private-aided Higher Education in Karnataka, India. *Educational Management Administration & Leadership*, *33*(4), 465-486. https://doi.org/10.1177/1741143205056214

Yusof, H. M., Mustapha, R., Mohamad, S. A. M. S., & Bunian, M. S. (2012). Measurement Model of Employability Skills using Confirmatory Factor Analysis. *Procedia - Social and Behavioral Sciences*, *56*, 348-356. https://doi.org/10.1016/j.sbspro.2012.09.663