brought to you by T CORE

JOURNAL OF TECHNICAL EDUCATION AND TRAINING VOL. 12 No. 1 (2020) 218-228

© Universiti Tun Hussein Onn Malaysia Publisher's Office



JTET

Journal of Technical Education and Training

http://penerbit.uthm.edu.my/ojs/index.php/jtet ISSN 2229-8932 e-ISSN 2600-7932

Employability Skill Evaluation among Vocational Education Students in India

Pratiksha Tiwari¹, Nittala Malati¹

¹Delhi Institute of Advanced Studies, INDIA

*Corresponding Author

DOI: https://doi.org/10.30880/jtet.2020.12.01.023 Received 1st September 2019; Accepted 11st January 2020; Available 31st March 2020

Abstract: The changing nature of work and employment is providing individuals for more flexible multi-skilling and learning opportunities. Imparting skill-based industry-oriented teaching can bridge the skill gaps and enhance employment opportunities for students. In this context, Government of India has introduced numerous programs to provide a fillip to technical vocational education and training. The current paper is aimed at understanding the role of vocational education and the change it brings to skill development and employability of the students. A combination of both qualitative and quantitative research methods was deployed for the study. In the quantitative design a multi-stage sampling process comprising of both probabilistic and non-probabilistic methods was employed. A sample of 586 students pursuing retail vocational education was identified and administered with the questionnaire. The statistical analysis presented the socio-economic profiles. Further, five factors for skill development and one factor for employability skill were identified through exploratory factor analysis. The factors identified for skill development include Initiative and Enterprise Skills (IES), Workplace Skills (WS), Professional Practice and Standards (PPS), Inter Personal Skills (IPS) and Integration Theory and Practice (ITP). Confirmatory and regression models involving all the factors were tested and their significance was analyzed. The study revealed that there is a positive impact of skill development on employability. It is suggested that focus on imparting vocational education for skill development can be a panacea for increased employability.

Keywords: Employability, vocational education, skill development, retail sector

1. Introduction

Vocational education and Training (VET) are important elements of the nation's education initiative. Vocational education consists basically of skill-oriented courses which offer better employment opportunities (Struck, 1945). Vocational or skill-based education is becoming highly relevant today because employers expect new employees to have practical skills they need when they start to work. It is also important for those who have to support their families immediately after senior secondary education. Increasing competition, economic slowdown, poverty, illiteracy, population imbalances and political instability are adding pressures on the policy makers as well as common citizens. The importance of education and especially 'relevant education' is gaining significance as a viable solution to combat these issues in Indian society. In the present times, Vocational Education, Training and Skill Development needs to be integrated within the general instruction framework. Combining Vocational Education, Training and Skill Development (VETSD) with the scholastic part is fundamental for the VETSD model to succeed.

India is among the countries with the lowest proportion of trained youth in the world. One of the shortcomings of Indian education system is that vocational education is not given due importance resulting in a mismatch between the required and available skilled manpower. According to Sanghi & Srija(2015), 75.8 % of the workforce did not possess any skill training during 2011-12 while the proportion of workforce with formal training was only 3.05 %.

Every year, various colleges churn out graduates who lack specific skill set required by the corporate. This has resulted in a situation where on one hand there are scores of unemployed graduates and on the other side students with huge skill shortages (Mehrotra, 2012). To address this gap the Government of India launched seventeen ministries/departments to administer Technical VET programs; the Ministry of Human Resource Development and the Ministry of Labour and Employment (MoLE) are the major ones. The programs are offered at secondary and higher secondary levels in grades 11 and 12 in the formal schooling cycle. Vocational training includes institution-based training programs which fall outside the formal schooling cycle and is mainly provided through public Industrial Training Institutes (ITIs), private Industrial Training Centres (ITCs) and polytechnics (both public and private).

According to Ministry of Skill Development and Entrepreneurship (MSDE) Annual Report 2016-2017, various sectors have been identified where the need for skilled manpower exists and retail sector is seen to be a sunrise sector with 10.7 % incremental human resource requirement by 2022. According to report by BCG Retail 2020, the aggregate market measure was assessed around US\$ 672 billion in 2016 and will increase to US\$ 1.3 trillion by 2020. Organised Retail Penetration (ORP) in India is low in comparison to other nations. This demonstrates the huge development potential for organized retail in India. Growing skill gaps in the retail sector have been observed with estimated 107 lakh trained manpower requirement by 2022 ranked second after construction sector thereby increasing the need for vocational education. As per the MSDE Annual report 2016-17, training was imparted to only 4,63,221 people, which is only 18.52% of the accepted targets by the Ministry/ Department thereby pointing out to the large gap between targets set and achieved in terms of training. This situation provides an opportunity to comprehend the reasons for promotion of vocational education in a big way.

This paper intends to examine the factors that can reflect skill development and affect employability skills in vocational education and the relationship amongst skill development and employability skills. A structural model in determining the employability of student in retail vocational education sector will be constructed

2. Related Works

According to Struck (1945) in a broad sense of the term, 'Vocational Education' refers to – "The experiences that enables one to carry on successfully a socially useful occupation". According to Smith (1927), "Vocational Education means getting people ready and keeping them ready for the types of service we need". The researcher further explains that the term 'Vocational education' has no limitations as to kind or levels of such needed services. Occupational education, good sociology, good economics and good democracy. In the dictionary of education, it is quoted that, "Vocational education is a programme of education organized to prepare the learner for entrance in to a chosen vocation or to upgrade employed workers: includes such divisions as trade and industrial education, agricultural education, distributive education and home economics education".

There has been rapid progress in the areas of information and communication technology, financial markets, business strategies, management practices and the working practices of organizations. The resulting impact on global economic system requires urgent and advanced responses in the field of technical and vocational education and training (VET) services, as the call for skills is now higher than ever before (Hogstedt, et al., 2007; Maclean and Lai, 2011). During current years, proficiency and diagnostics in Technical and Vocational Education (TVE) have made great progress in providing an empirical foundation for occupation- related competence models and their assessment. Empirically verified competence models have been introduced for many occupations in the industrial-technical and commercial sectors. Studies provide empirical estimates of the returns for individuals from an investment in education. TVE was shaped to provide opportunities for students who contain a propensity toward science and technology education to meet the manpower needs of the industry.

Smart partnership between academics and policy shapers of TVE in the country can be used for the development and growth of skilled workers. Apprenticeship, Evaluation, and Use of Information & Communication Technology surfaced as main issues in Technical and Vocational Education. Grubb (2006) opined that TVE teaching takes place in a variety of settings from specialized workshops to classrooms. The extent to which TVE training is "hands-on" varies as it is interpreted differently between trainers. In terms of global context TVE serves as one of the major training sectors providing trained manpower for agriculture, industrial and commercial development. Although the amount of research on social competences as an integral component has increased considerably in the past decades, a congruent understanding is still lacking, which makes objective comparisons between different measurements of these essential aptitudes virtually impossible (Monnier 2015). The notion that employability should be an explicit outcome of vocational education and training is gaining popularity everywhere. Better training produces higher income which improves quality of life, occupational safety, diversity and the livelihood of individuals (Hartl, 2009). TVE system is designed to train competent personnel that will fit into different sectors of the economy. The graduates are expected to carryout services, diagnose, tests and repairs as highlighted in the national curriculum of technical colleges that is in South-Western geopolitical zone of Nigeria (Olayinka & Oyenuga, 2010).

Employability skills are the skills, knowledge, understanding and personal attributes that enable a person to obtain employment, and be successful and satisfied in their chosen careers (Pool & Sewell, 2007). Generic skills are the transferable skills most widely acknowledged 'employability skills' in university, policy and employer graduate attribute lists. They include skills such as information literacy, working with technology, written and verbal communication, working in teams and numeracy. Investigating the links between generic skills and employability, researchers have content-analyzed graduate job advertisements (Bennett, 2002) or employed a direct questioning approach to determine which generic skills employers value the most (Australian Chamber of Commerce & Industry, 2002; Graduate Careers Council of Australia, 2005). The importance of training and equipping individuals with personal skills and qualities for employment cannot be over emphasized; it therefore requires collaborative efforts from all stake holders including the industry to fully develop and maintain the spirit to produce competent graduates who will face the challenges of rapidly changing economy (Wye & Lim, 2009). Al-Najar and Hamarneh (2019) and Al-Najar et al. (2019) discussed effect of unemployment records in graduated students and contribution of urban agriculture in increasing jobs opportunities. Haron et al. (2019) identified employability potential of Malaysian Vocational College graduates based on the current employer perception and provided suggestion in order to improve employability skills of students. Che Rus et al. (2019) used Delphi method as research framework and findings revealed ten characteristics of Knowledge workers that are needed to enable them to have high employability skill in order to satisfy / fulfil requirement of skilled workforce in Malaysia.

Existing body of knowledge suggest items/ variables that can be used to formulate indicators to measure development of skills and employability skills of students. The broad Literature Review exploring VET toward Employability and development of skill is represented in Table 1.

Articles	Variables				
McLeish (2002), Jackson (2010), Idris et al. (2012),	Communication				
Smith et al. (2014)	• Team work				
	Collaboration				
	Operating in organizational environment				
	• Working well with peer and supporting staff				
	 Solving problems in team 				
	Ability to manage time				
McLeish (2002), Harvey et al. (1997)	Problem solving				
	• Initiative and enterprise				
	Creativity				
Pool & Sewell (2007), Idris et al. (2012)	 Willing to upgrade to technology skills 				
	• Willing to use a range of technologies				
	• Prepare to invest time and effort in learning new				
	skills				
	Career development learning				
	Commencement-Readiness				
Law & Watts (1977), Smith et al. (2014), UKCES	 Informed decision making 				
(2010) report	Decision learning				
	Opportunity awareness				
	Leadership & Recourse				
McLeish (2002), Moon (2004)	Personal values				
	Personal development planning				
	Ethical practice				
Harvey et al. (1997), Smith et al. (2014)	• Subject specific skills				
	Knowledge and understanding				

Table 1-Identified Variables

3. Objectives and Hypothesis of the Study

The study has the following objectives in Indian context:

- 1. To identify the factors that can reflect skill development and affect employability skills in vocational education.
- 2. To examine the relationship amongst skill development and employability skills.
- 3. To construct a structural model in determining the employability of student in vocational retail education sector.

For the fulfillment of objectives of the study, the following sets of hypotheses were formulated:

- 1. There is a positive significance of identified factors on skills development (SD) of the student.
- 2. There is a positive effect of skill development on employability skills of the students.

4. Research Methodology

The present study is based both on primary as well as secondary data and research design is descriptive in nature which identifies relation between various identified factors. According to National Policy for Skill Development and Entrepreneurship (2015), retail sector will have 17.35% incremental human resource requirement by 2022. Hence need to have skilled employees is also high. The secondary data was acquired through periodicals, journals, newspapers, industry publications and research reports and primary data was collected through a schedule format of structured questionnaire containing bilingual questions presented in both Hindi and English for the better understanding of the respondents. Comprehensive questionnaires were prepared. Variables were identified based on studies carried at international level along with information available in Indian Context. The resulting questionnaire consists of 40 variables other than variables measuring socioeconomic background of the respondents in both the categories.

4.1 Instrumenttation

Questionnaires along with survey introduction were used to collect data necessary to meet the purpose and objectives of the study. The survey introduction was designed to encourage participation. It described the nature and the purpose of the study followed by statements assuring anonymity and the extent to which confidentiality of records will be maintained. An assurance that the responses will be used for education purposes only.

The questionnaire had three sections described as follows:

- Section 1 included questions about respondent's socio-economic background.
- Section 2 consists of Q1 to Q33 regarding skill development of retail vocational education student's with a five-point Likert scale ranging from 1 (Strongly disagree) to 5 (strongly agree) (adapted from McLeish(2002), Jackson(2010), Idris et al.(2012), Harvey et al. (1997), Pool & Sewell (2007), Law & Watts (1977), Smith et al.(2014), UKCES (2010) report and Moon (2004).
- Section 3 consists of Q 34 to Q40 regarding employability skill of respondents with a five-point Likert scale ranging from 1 (Strongly disagree) to 5 (strongly agree) (adapted from Blades et al. (2012) and Harvey (2001)).

A pretest and a pilot survey were conducted to refine the research instrument. For the pretest, the questionnaire was sent to retail vocational education students. Pilot study was conducted based on which the final correction has been undertaken in the questionnaire. The basis of pilot testing includes the concentration of the respondents among the sample. 110 administered questionnaires were considered from different parts of NCR region to examine statistical and methodological accuracy, especially reliability of the measures and normality of data distribution. After analyzing the results of pilot testing, the questionnaire was restructured from respondent's point of view. Thereafter for validating restructured questionnaire internal reliability is established through Cronbach alpha, in CFA model construct reliability, convergent validity and discriminant validity were established.

Retail vocational education institutes / centres were identified from the website of Retail Skill Council of India (RSCI). After preparing the list of institutes / centres providing vocational education in retail sector the institutes were divided in to strata's on the basis of location of institutes. Institutes were contacted personally/ telephonically and permissions to collect data were taken. The data from students of these selected institutes data was collected through convenience sampling. Thus, multi-stage sampling process comprises of both probability and non-probability techniques of sampling in order to represent the whole population. In all 702 responses were collected from students of different institutions in National Capital Region. Thereafter the data was screened in order to ensure the data is useable, reliable, and valid for testing theory. Data cleaning involves respondent wise checking of missing and unengaged responses. Cases with high missing values and unengaged responses were deleted resulting in to a data of 586 respondents. Data was imputed in to variables having only 1 or 2 missing responses with mean of the series. Thus, the socioeconomic profile of the final responses was subjected to data analysis.

6. Results and Discussion

6.1 Socioeconomic Profile of Respondents

Of the 586 respondents in the study, 17.6% were female (n =103) and 82.4% were male (n = 483). 3.8% (n = 22) of the respondents were between 15 and 17 years, 21.0% (n = 123) were between 18 and 20 years, 74.6 %(n=437) were between 21 and 23 years whereas only 0.7%(n=4) were between 24 years or higher in age. For family income per month none of the respondents lie in the family income more than 20000 i.e. all the respondents have family income less than 20000 per month with a bifurcation of 18.9 % (n=111), 59.2 % (n=236), 28.8 % (n=169), 11.9% (n=70), 0% (n=0) having monthly family income less than 5000, 5001-10000, 10001-15000, 15001-20000 and more than 20000. There were 95.1% (n=557) respondents having less than 5 members in their family whereas only 4.9% (n=29) have 5 to 8 members in their family with 37.5% (n=220) have only 1 member earning in the family, whereas 58.9% (n=345) and 3.6% (n=21) have 2 and 3 members earning in the family. 61.3% (n=359) of the respondents were inspired by their friends to join retail vocational education course, 27% (n=158) were inspired by some family member, 4.4% (n=26) were inspired by governmental advertisement, 7.3% (n=43) stated others as reason to join the same. Out of all respondents 88.6% (n=519) were born in National Capital Region while rest 11.4% (n=67) were born outside the region.

Descriptive analysis of socioeconomic profile of the students reveals that more than 70% of the students opting for vocational education are in the age bracket of 21-23 years with monthly income less than 10000 rupees highlighting that low-income families are on the lookout for potential employment opportunities and consider retail skill development vocational courses as employment generation programmes. This is in tandem with objective of National Policy of Skill Development, 2009 of emerging occupations, pre-employment training and life-long learning. Mahapatra and Satapathy (2016) opine that most professionals or prospective employees of the age group of 25-40 have specific demands to devote least possible for their training as they intend to commence their professional careers as soon as possible. Burrell, (2006) also states that skill development lessons in the age category of 23-40 also ends up becoming limited because of limited focused time for learning new skills as adults in this category are burdened with additional family responsibilities. In the current study it is heartening to see a major population in the 18-23 age group category as this will aid the youth of the country to become self-sufficient and economically independent leading to better life.

6.2 Skill Development

The Kaiser- Meyer-Olkin measure of sampling adequacy came out to be 0.910 which are above .65 (the acceptable level) for skill development and employability skills. This shows that the items selected for the questionnaire are appropriate. The chi- square value of Bartlett's Test of Sphericity was found to be significant with chi square = 10195.27, p = 0.000, for skill development this means the factor analysis is acceptable. The factor analysis generated five components for skill development with eigenvalues above 1. Total variance explained for five factors are 67.302%. The Varimax rotation clubbed the items on five factors for skill development. Five factors were determined on the basis of exploratory factor analysis and named afterward on the basis of their factor loadings. They were named as Initiative and Enterprise Skills (IES), Inter Personal Skills (IPS), Professional Practice and Standards (PPS), Integration Theory and Practice (ITP), Workplace Skills (WS). Cronbach's Alpha values for all identified factors are shown in Table 2.

Measureme Constructs Skill Developmen	for	Variables	Factor Loadings	Cronbach's Alpha
Initiative Enterprise (IES)		Q12: I can identify the knowledge I lack / need to improve to be effectiveness	.783	
(123)		Q13: I Acknowledge the need to learn to accommodate change	.773	
		Q8: I can appraise the quality of information obtained e.g. from the web, from books or from other people.	.759	0.923
		Q10: I understand the key drivers for success in this enterprise / profession.	.740	

Table 2- Rotated Component matrix for Factor Identification of Skill Development

	Q15: I learn from mistakes and can accept feedback.	.721	
	Q11: I seek clarification when I do not understand an instruction.	.718	
	Q14: I am be prepared to invest time and effort in learning new skills.	.710	
	Q9: I can use information to come to reasonable decisions and then act on these.	.675	
Inter Personal Skills (IPS)	Q2: I can Interact appropriately with people from different levels of management/ leadership/ seniority in a workplace	.794	
	Q4: I am Showing independence and initiative in identifying problems and solving them	.784	
	Q3:I Learn from and collaborate with people representing diverse backgrounds or view points	.781	
	Q5: I give clear instructions or advice to colleagues to achieve an outcome.	.779	0.905
	Q6: I can read and understand information in words, graphs, diagrams, or charts.	.768	
	Q1: I can Speak clearly and directly	.709	
	Q7: I am able to share information using various communication technologies, like voice mail, e-mail and computers.	.703	
Professional Practice and Standards (PPS)	Q23: I present myself effectively in selection interviews and processes.	.740	
	Q22: I Acknowledge and praise another person work	.730	
	Q24: I respect the thoughts, opinions and contributions of others.	.728	0.879
	Q25: I can adapt to new circumstances or information.	.716	
Integration Theory and Practice (ITP)	Q21: I recognize ethical practice in the workplace.	.708	
	Q29: I understand the theories and principles in my discipline	.823	
	Q27: I link together different theoretical perspectives when working on a workplace or professional task or problem	.759	0.826

Workplace Skill (WS)		Q31: I set goals, plan and manage my time, money and other resources to achieve my goals.	.752	
		Q33: I am innovative and resourceful	.693	
	Skills	Q16: I am ready to commence work in your field or discipline	.823	0.773
		Q18: I identify the standards of performance or practice expected	.795	
		Q20: I like to take responsibility	.723	

Exploratory factor analysis (EFA) extracted a five-factor structure, with all the variables loading in their respective factors with factor loadings ranging from 0.675 -0.823. Based on the results obtained in EFA, different Confirmatory factor models were compared for the complete sample (N=586) for skill development. Initial Confirmatory Factor Analysis (CFA) model was constructed by using the correlated five factor structure model based on EFA output. The goodness of fit of the five-factor model was compared with two alternative models in order to check whether it can serve as a reasonable baseline model. Two alternative models nested within the five-factor model were compared to the baseline model to systematically test whether correlated and yet distinct five factors structure can be identified across the skill development variables. Two alternative models were described as:

Single factor model: This model identifies single factor to which all the variables load, suggesting the skill development is a single construct. Rejection of this model over five factor model provides evidences for the presence of five correlated but distinct factors. Second order factor model: This model reflects that the five unobserved factors are distinct and yet correlated with each other because they cater different aspects of common unobserved construct skill development.

Table 3: CFA Summary							
Models	Model	Chi	CMIN/df	CFI	NFI	GFI	RMSEA
	df	Square					
Five factor correlated model	160	562.424	3.515	0.939	0.917	0.913	0.066
Single factor model	170	3185.619	18.739	0.544	0.532	0.544	0.174
Second order factor model	147	535.508	3.643	0.934	0.911	0.913	0.067

Goodness of fit indices for five factor model for the entire sample as presented in Table 3. The fit of this model to the data is good, thus the five-factor correlated model can be considered as a baseline model. In comparison with single factor model goodness of fit indices for baseline model is relatively better and baseline model fits data significantly as compared to single factor model. Fit indices of second order factor model is approximately identical to those of five factor correlated model because mathematically both the models are identical to each other and both the models are viable to be baseline model. Theoretically second order factor model fits better as baseline model because it explores different aspects of skill development. Thus, second order factor model is finally considered as baseline model for skill development.

Employability Skills

The Kaiser- Meyer-Olkin measure of sampling adequacy came out to be 0.87 which are above .65 (the acceptable level) for employability skills. This shows that the items selected for the questionnaire are appropriate. The chi- square value of Bartlett's Test of Sphericity was found to be significant with chi sq. = 3711.182, p=0.000 for employability skills this means the factor analysis is acceptable. The factor analysis generated one factor for employability skills with eigenvalues above 1. Total variance explained for the factor is 81.179 %. The Component Matrix clubbed the items on one factor for employability skills. Factor loading and Cronbach's alpha values for identified factor are shown in Table 4.

CFA for skill development and employability variables: In these models the relation between skill development and employability of students pursuing vocational education course. Although the second order factor model was considered as the baseline model this model may not hold when employability variables are incorporated in to the model. In order to examine the pattern of relationship between Initiative and Enterprise Skills (IES), Inter Personal Skills (IPS), Professional Practice and Standards (PPS), Integration Theory and Practice (ITP), Workplace Skills (WS) and employability factors without imposing any higher order factor structure. CFA model for skill development and employability variables is used to establish the construct reliability, convergent validity and discriminant validity. Average variance extracted (AVE) for all the constructs ranges between 0.541 (for WS) to 0.783 (for Employability) which is higher than the acceptable limit of 0.5. Construct reliability (CR) for each construct is between 0.778 (for WS) to 0.946 (for Employability) which are within the acceptable limit of lying between 0.6 and 0.7. Also, maximum shared squared (MSV) for each construct is greater than AVE thus establishing discriminant validity amongst the constructs.

Measurement Construct for Employability Skills	Variables	Factor Loadings	Cronbach's Alpha
Employability Skills	Q36: I have clearer ideas about what I want to do in the future	.976	
	Q37: I feel that the things I have been doing will help me in the future		
	Q38 : I feel more positive about the future, compared to previous year	.951	0.937
	Q39: I feel more confident after joining my retail vocational education course	.894	
	Q40: Taking part in the scheme has given me new skills	.689	

Table 4- Component Matrix for Factor Identification of Employability Skills

Following models were tested to identify the relation amongst aforementioned factors:

- Six Factor Model: As mentioned in Table 5 the fit of this model was acceptable, along with interpretable parameters. The inter factor correlations for this model suggested that, although all the six factors were correlated with one another, the correlations amongst all the six factors is moderate ranging from 0.403 to 0.691. Therefore, all the six factors were retained in the model to examine how the skill development and employability factors were related to each other. Two additional models provided the relationships among skill development and employability.
- Skill development and Employability Second order factor model: This model is a higher order correlated model for skill development and employability variable. The higher order factors skill development and employability are correlated to each other.
- Skill development and Employability regression model: This model is a higher order regression model for skill development and employability variable. Since the second order model was identified as the final model of skill development. This model defines that skill development predicts the employability.

Thus, various models were tested, and the fit indices of these models are given in Table 5. The Skill development and Employability Second order factor model and the Skill development and Employability regression model share the same values for fit indices because they were mathematically same. The fit indices of these models are interpretable. Further between all the three models Skill development and Employability regression model is preferred because the model explains the predicative relation between skill development and employability. Thus, the Skill development and Employability regression model is selected as the final model that best represents the structure amongst all the evaluated models.

Path coefficients for Skill development and Employability regression model and their t-values obtained in the test of the revised structural model are found to be significant. Hypothesis proposed that skill development would be positively associated with employability skills. Results of the structural equation model provided support for this hypothesis ($\beta = .612$, t = 10.454, p < .001), indicating that when skill development goes up by 1 standard deviation, employability goes up by 0.612 standard deviations. Thus, there exists a positive relationship between skill development and employability skills.

Models	Model df	Chi	CMIN/df	CFI	NFI	GFI	RMSEA
		Square					
Six factor model	237	755.146	3.186	0.943	0.920	0.905	0.061
Skill development and Employability Second order factor model	751.589	201	3.739	0.931	0.908	0.897	0.068
Skill development and Employability regression model	751.589	201	3.739	0.931	0.908	0.897	0.068

Table 5-Model Summary

The studies undertaken for the Employment skills and VET Policy, Australia also suggest the importance of organizational and training skills. Clifton et al. (2014) stated that job markets will have strong demand for people with degrees and general 'human capital', hence policy makers ought to focus on strengthening vocational education and training. Further, employers should be encouraged to make better use of the workforce skills and improve quality of jobs. Brar and Singh (2015) have found that India lags in skilling their youth and in the wake of changing economic scenario focusing on skill development of the youth can be a key to development. Banerjee (2016) also opines that vocational education and training play a pertinent role in developing skilled manpower in the country. India has also been emphasizing on offering convenient access to technical and vocational education along with general education for meeting the demand for skilled employees (Goel, n.d). Further skilled employees as the study suggests score well on most of the parameters of employability. Smith and Comyn (2004) also added that development of employability skills in naïve employees results in other benefits like reduced employee turnover in early months of work along with enhanced ability to adapt settle in the job.

The National Youth Policy was launched in 2014 for providing a holistic vision for the country's youth to empower them to achieve their potential. The National Policy on Skill Development and Entrepreneurship, 2015, also aims at providing a framework for the skilled activities carried in the country and links skills with demand centers. The establishment of the National Skills Council and other allied agencies are also some of the positive steps taken by the government in this direction. To augment the prospects of employment, the focus should be on enhancing interpersonal skills, integrating theory and practices and learning skills. The governmental initiatives of "Make in India" and "Digital India" should also create better employment opportunities. Skilling the workforce should start early, the benefits in terms of better employment should also be advertised for increased awareness. Tie-ups of skill councils and vocational education institutes with employers can also motivate young adults to enroll and pursue courses in large numbers.

6. Conclusion

According to Bloomberg News Analysis it is found that by 2027, India would have a billion people in the 15 to 64 years category which would be the largest workforce in the world. Creating suitable jobs for these would be a greater challenge. The world has shrunk to be a global village with liberalization and privatization already on the anvil and the government being a welfare state there is a dire need to create jobs. Hence vocational education training is seen as a panacea for job related problems. Further, to be successfully employed students should be qualified and trained in the requisite areas.

The study involves identification of skill constructs that are an important component for skill development of population under study. The skills identified in the study through exploratory factor analysis include Initiative and Enterprise Skills (IES), Workplace Skills (WS), Professional Practice and Standards (PPS), Inter Personal Skills (IPS) and Integration Theory and Practice (ITP). These skills receive theoretical verification through confirmatory factor analysis techniques. Enhancing these skills can only be achieved by training Further, the study formulates and compares models which involve various identified skills, skill development and employability skills for the population. These models aid in planning of programmes and structured interventions to focus in retail courses. This will help in promoting employability within retail vocational education and demonstrate to employers, the role that vocational education can play in contributing to employability skills of students. This encourages personnel to take up vocational education at any stage of life and can also be looked upon as an option for mid-life career change.

The current study provides a basic framework to the policy makers on areas that should be focused to enhance employability skills. Employability scales as a selection tool can be developed to measure the extent of suitability of the employee on the job. Further appraisals can also look for progressive improvements on these parameters and for measuring the improvement in performance of the employee. This will further provide a fillip to all the stakeholders.

List of Abbreviations

NCR: National Capital Region; IES: Initiative and Enterprise Skills; WS: Workplace Skills; PPS: Professional Practice and Standards; IPS: Inter Personal Skills; ITP: Integration Theory and Practice; VET: Vocational education and Training; VETSD: Vocational education, training and skill development; CII: Confederation of Indian Industries; MoLE: Ministry of Labour and Employment; ITIs: Industrial Training Institutes; ITCs: Industrial Training Centres; ORP: Organised Retail Penetration; MSDE: Ministry of Skill Development and Entrepreneurship; TVE: Technical and Vocational Education; RSCI: Retail Skill Council of India; EFA: Exploratory factor analysis; CFA: Confirmatory Factor Analysis.

Acknowledgement

Authors would like to acknowledge all researchers who involved in this project.

References

Al-Najar, H. & EL Hamarneh, B. (2019). The Effect of Education Level on Accepting the Reuse of Treated Effluent in Irrigation. *Indonesian Journal of Science and Technology*, 4 (1), 28-38.

Al-Najar, H., Khalil, H & Rahayu, Y. S. (2019). High Unemployment Records of Graduated Students in the Development of Urban Agriculture in the Gaza Strip. *Indonesian Journal of Science and Technology*, 4 (2), 196-203.

Annual report of Ministry of Skill Development and Entrepreneurship 2016-2017 (2017). Government of India.

Bennett, R. (2002). Employers' Demands for Personal Transferable Skills in Graduates: A Content Analysis of 1000 Job Advertisements and an associated Empirical Study. *Journal of Vocational Education and* Training, 54(4), 457-475.

Blades, R., Fauth, B. & Gibb, J. (2012). "Measuring Employability Skills, National Children's Bureau.". Retrieved From http://www.partners4value.lt/wp-content/uploads/2015/10/Measuring-Employability-Skills.pdf

Brar, K. K., & Singh A. (2015). Skill Development in Higher Education: Trends and Issue. *International Journal of Emerging Research in Management & Technology*, 4(II), 126-130.

Burrell, J. (2005). Telling Stories of Internet Fraud: How Word-of-mouth shapes Internet Use in Accra, Ghana. *Association of Internet Researchers Conference*, (Chicago, IL).

Clifton, J., Thompson, S. and Thorley Craig (2014). Winning the Global Race? Jobs, skills and the Importance of Vocational Education. *Institute for Public Policy Research*. Retrieved from https://www.ippr.org/files/publications/pdf/winning-global-race_June2014.pdf.

Che Rus, R., Mamat, A. B., Hasnan, K. A., Hanapi, Z., & Nasir, I. (2019). Development Of K-Workers Employability Skills Measurements Indicators in Agricultural Sector in Malaysia. *Journal of Technical Education and Training*, *11(4)*. Retrieved from https://publisher.uthm.edu.my/ojs/index.php/JTET/article/view/3197

Employability Skills- An Employer Perspective: Getting What Employer want out of the Hard Basket, (2002), *Barton:* ACT: Austalian Chamber of Commerce and Industry.

Graduate skills: What Employers Want (2005). Graduate Careers Council of Australia.

Grubb, W. (2006). Vocational Education and Training: Issues for a Thematic Review. OECD.

Haron, M. A., Mohammad Hussain, M. A., Mohd Zulkifli, R., Mat Nashir, I., & Imam Ma'arof, N. N. (2019). Employability Skills Needed By Vocational College Graduates: Feedback From The Industry. *Journal of Technical Education and Training*, *11(4)*. Retrieved from https://publisher.uthm.edu.my/ojs/index.php/JTET/article/view/3172

Hartl, M. (2009). Technical and vocational education and training (TVET) and skills development for poverty reduction – do rural women benefit? *International Fund for Agricultural Development trends and current research in gender dimensions of agricultural and rural employment: differentiated pathways out of poverty Rome. Italy.*

Harvey, L. (2001). Defining and Measuring Employability. Quality in Higher Education, 7(2), 97-110.

Harvey, L., Moon, S., Geall, V., & Bower, R. (1997). Graduates' Work: Organizational Change and Students' Attributes. Birmingham: Centre for Research into Quality, University of Central England.

Hogstedt, C., Wegman, D. H., & Kjellstrom, T. (2007). The Consequences of Economic Globalization on Working Conditions, Labor relations and Workers' Health. *I. Kawachi, & S. Wamal, Globalisation and Health.* . Oxford: Oxford University Press. (2007).

Idris, A., & Rajuddin, M. (2012). An Assessment of Employability Skills Among Technical and Vocational Education Students in Nigeria. *Archives Des Sciences*, 65(7), 392-400.

Jackson, D. (2010). An International Profile of Industry- Relevant Competencies and Skill Gaps in Morden Graduates. *International Journal of Management Education*, 8(3), 29-58.

Law, W., & Watts, A. (1977). Schools, Careers and Community. London: Church Information Office.

Maclean, R. and Lai, A. (2011). "The Future of Technical and Vocational Education and Training: Global Challenges and Possibilities. *International Journal of Training Research*, 9(1-2), 2-15.

Mahapatra, P.& Satapathy, S. (2016). Skills, Schools and Employability: Developing Skill Based Education in Schools of India. *Journal of Social Sciences*, *12 (2)*, 99-104.

McLeish, A. (2002). Employability Skills for Australian Small and Medium Sized Enterprises. Commonwealth Department of Education Science and Training.

Monnier, M. (2015). Difficulties in defining Social-Emotional Intelligence, Competences and Skills-A Theoretical Analysis and Structural Suggestion. *International Journal Research in Vocational Education and Training*, Page 59-84.

Moon, J. (2004). Reflection and Employability. New York: The Higher Education Academy.

National skill development Policy (2009). Government of India

National Policy for Skill Development and Entrepreneurship (2015). New Delhi: *Ministry of Skill Development and Entrepreneurship*.

Olayinka, O. & Oyenuga, A. (2010). Integration of Automobile Technological Developments into Nigeria Technical College Motor Mechanics Work Curriculum. *Academic Leadership: The Online Journal*, 8(2), 1-11.

Pool, L. D., & Sewell, P. (2007). The Key to Employability: Developing a Practical Model of Graduate Employability" in *Education* + *Training*, 49(4), 277-289.

Retail, India Brand Equity Foundation, (2017), Retrieved from https://www.ibef.org/download/Retail-December-20171.pdf

Sanghi, S, & Srija, A. (2015). Skill Development and Productivity of the Workforce. Focus of the Month by Confederation of Indian Industry.

Struck, F. Theodore. (1930). Foundations of industrial education. New York: J. Wiley & sons, inc.

Smith, C., Fern Smith, Homer J. (1927). Industrial Education, Administration and Supervision. The Century Co. New York.

Smith, C., Ferns, S., & Russell, L. (2014). Conceptualising and Measuring 'Employability'- Lessons from a National OLT Project. *Work Integrated Learning: Building Capacity. Springvale South VIC Australia: Australian Collaborative Education Network (ACEN) Limited.*

UK Commission for Employment and Skills annual report 2009 to 2010(2010). UK Commission for Employment and Skills.

Wye, C., & Lim, Y.(2009). "Perception Differential between Employers and Undergraduates on the Importance of Employability Skills" in *International Education Studies*, 2(1), Page 95-105.