Vol. XVI & Issue No. 05 May - 2023
INDUSTRIAL ENGINEERING JOURNAL

GETTING DIVIDEND FROM DEMOGRAPHY: SKILL DEVELOPMENT EVIDENCE IN INDIA

Dr. Mini Agrawal
Dr. Hephzibah Beula John
Dr. Arif Hasan
Prof. K. S. Thakur

Abstract

India has placed a strong emphasis on skill growth as a result of the country's shifting demographics, rising desires of young people for improved employment opportunities, and rising employer expectations of a workforce that is well-trained and productive. In order to reap the benefits of these generational dividends, Prime Minister Narendra Modi launched the Skill India initiative on July 15, 2015. The campaign's objective is to train more than 40 crore candidates in India in various skills by 2022. Numerous government initiatives are included, such as the Pradhan Mantri Kaushal Vikas Yojana, National Skill Development Mission, National Policy for Skill Development and Entrepreneurship, and the Skill Loan Program. In order to provide skill-based training to the youth and allowing them to gain and support in country's anti-poverty programmes, the skill acquisition initiative was developed. The Indian government has launched a number of large-scale national programmes for technical education, training, and skill development over the past 20 years to increase opportunities for young people in terms of employment and income. In light of the aforementioned, it is crucial to establish if a skill development programme contributes to a rise in youth productivity and performance outcomes. Current research sheds insight on recent evidence of skill development in India.

Keywords: Skill Development, Demographic Dividend, Asian Countries Skills Development Initiatives, Skill Development Training, Unemployment Problem, National Skill Development Mission, Skill Development Policy, Training & Development.

INTRODUCTION

India has a significant demographic asset that could be turned into a dividend by making a positive contribution to economic development. The National Skill Development Initiative will empower all humans to attain access to jobs and assurance the competitiveness of India on the worldwide market thru more desirable abilities, expertise, and nationally and globally acknowledged qualifications. The National Skill Strategy identifies specific focus classes for skill growth inclusion in the context of improving infrastructure and a better job agenda to understand their future competitiveness and lead to social and economic progress. Previously few numbers of Indian employees had any organized skill training. So it is not shocking that many segments of the country's economy are facing a lack of qualified workers and are dazed by low productivity rates owing to poor quality of the workforce. At the same time wide numbers of the country's youth are searching for economic and livelihood opportunities. In this sense, capability creation has become an important goal for the region. Not only is this important to sustainable growth, but will also help meet the desires of young people for high quality, well-paying careers and self-employment opportunities. This would also encourage the country to take advantage of its favorable demographic profile. India has the chance to become a worldwide supplier of skills with a large pool of skilled people, particularly the aging developed world.

The primary goal of the professional acquisition program is to build awareness, uplifting skills, creating work openings and entrepreneurship. Professional training system would improve the competitiveness of the country's workforce by allowing them to get high-quality professional training through a range of industries. This would also bring about a structural shift in the world from input-based skill training to magnitude-based skill training. This also seeks to dramatically increase the nation's skill training operations and allow skill training to take place at a rapid pace, without losing efficiency.

LITERATURE REVIEW

Compare Indian skills development initiative with other Asian countries skills development initiative. India acquires wonderful opportunity of the demographic dividend (Palit, D. A., 2009). Desai et al., (2010) Growth, poverty, inequality, and human development are always concern in India. After the liberalization, rapid economic growth has stimulated further global interest. Indian MNCs witnessed a turbulent era in the form of hyper competition. Misra (2015), skill development in India is as an Influence of the demographic dividend and upgrade skill to entrée in global market and increase productivity of both sector organized and unorganized. The existing policy of skill development needs modification according to the requirement of industry and global market. Misra (2015), suggest private participation and skill development university establishment in every state can be useful to achieve target of training people by 2022. Even after the Government investing a lot in training costs and infrastructure, creation of vigorous workforce for the industry is still a fantasy. As a world's fastest growing economies, India needs Gray collar (knowledge employees),

Pink collar (waiters, vendors, salespeople) and Rust Belt (construction) jobs complement white and blue collars (Prasad & Purohit ,2017). Students need to be made industry prepared through making the curriculum for professional courses in a way that offers complete on the job education and the high-quality standard of training needs to be upgraded. After substantial development in literacy, very high incidence of illiteracy causes the Indian workforce even today. Thus, need for increasing capability of skill development programs (Saini, V., 2015). Srija, A. & Sanghi, S. (2018), Productivity is more important among them, and it has different measurement for individuals. (Agrawal & Thakur, 2019) sates after the completion of training there is a remarkable change in trainee productivity. Availability of skilled manpower, innovative practices and technological upgradation can increase the productivity. Improved productivity reflects in improvement of GDP, increased enterprise profit and worker with high wages. Improving the production of management skills is the best direction and the growth policies will be a necessary step. The development policies must be according to the requirement of various sectors also focusing on quality and relevance of the training. The Developing Countries show that innovation in professional growth contributes to global change and low pay breaks. In many areas of the globe, short-term training programs have been commonly used as a strategy tool to boost the employability of specific population communities. The results of Indian studies also seem to be consistent with earlier assessments that the impact of education on development countries is more positive than in the EU or the US (Betcherman et al. 2004).

STATEMENT OF THE PROBLEM

A skilled workforce is vital in order to make India globally competitive and further enhance its economic growth. As a knowledge-based economy, India has progressively progressed due to the abundance of competent, versatile and skilled human resources. With the growing encouragement of globalization, India has enormous opportunities to create its distinguishing position in the world due to Skill capacity available. Knowledge and skills are important grounds of macroeconomic development and socioeconomic stabilization. Developing skills can be described as skills obtained or evolved through training or knowledge. It enhances people's capacity to adapt to altering business requirements and helps to profit from innovation and business operations. At national level, any country's future prosperity eventually relies on how many people are employed and how efficient they are at job. For inclusive growth, skilled human resources are crucial. In order to reap the advantages of our country's demographic dividend, the development of skills can therefore be linked to a wider growth, employment and development that include government interventions.

In current scenario educated youth of India are facing severe unemployment problem, due to lack of skills and technical knowledge. Most of them are unaware about the developments taking place in the modern world. India's government is working hard to accomplish the target mentioned, which has positive impacts on youth as well.

- **H_1:** There is significant role of skill development training program acquisition, upskilling and change in working methodology on productivity of youth.
- **H_2:** There is significant impact of skill development training program acquisition, upskilling and change in working methodology on performance of youth.

Probably the biggest issue is to ensure that skill policy is implemented at ground level at an alarming rate due to absence of consciousness. In addition, convincing blue chip businesses to appoint the qualified workforce is another bottleneck due to the problem of stability and outdated curriculum that does not meet industry standards. Therefore, instead of sticking to local demands, we need to generate employment throughout the world. The toughest job is to source and create a pool of skilled, knowledgeable, and certified trainers who are ahead of time and understand the strategy, individuals, and media feelings.

OBJECTIVES OF THE STUDY

The Skill Development program is associated to the increase in productivity and performance outcomes or evidence. Where person can shift his or her ability by learning. Skill Development Trainee productivity and performance directly depends upon the training attributes includes training acquisition which transfers to upskilling and work methodology. The objective of the study is to assess the role of skill development program in improving the productivity and performance improvement of trainees.

METHOD

A Descriptive research design as well as exploratory research design is employed for present research. Result generalization of study is on group of trainee who were trained at training center of skill development program. Both primary and secondary data was collected and a convenience, non-probability sampling. Data for this study was collected by survey conducted at training centers. The sample of this study consist of youth who were trained at skill development training center in India. A closed ended limited questionnaire is used to collect relevant knowledge and evidence on the categorical scoring scale of Likert five points. A thorough interpretation of the element by these experts aided in establishing the face-validity of the questionnaire and its objects. The questionnaire was seen and shared with teacher and psychologist at the counseling centre. These individuals first shared their opinions on the questionnaire and suggested the necessary change. Collected data wrangled through editing and codding. Every gathered questionnaire was checked for culmination and cleans for more deep and extensive treatment of response. However, 65 questionnaires were removed, as not fit for final analysis. Therefore, remaining 1193 questionnaires were used for further data analysis. Wrangled data were imported into SPSS 24 for analysis. Analysis were Categorized into descriptive analysis and statistical analysis. To visualize the data, descriptive analysis were used to analysis demographic information. First, reliability measurement scale was examined to find the appropriateness of data for research.

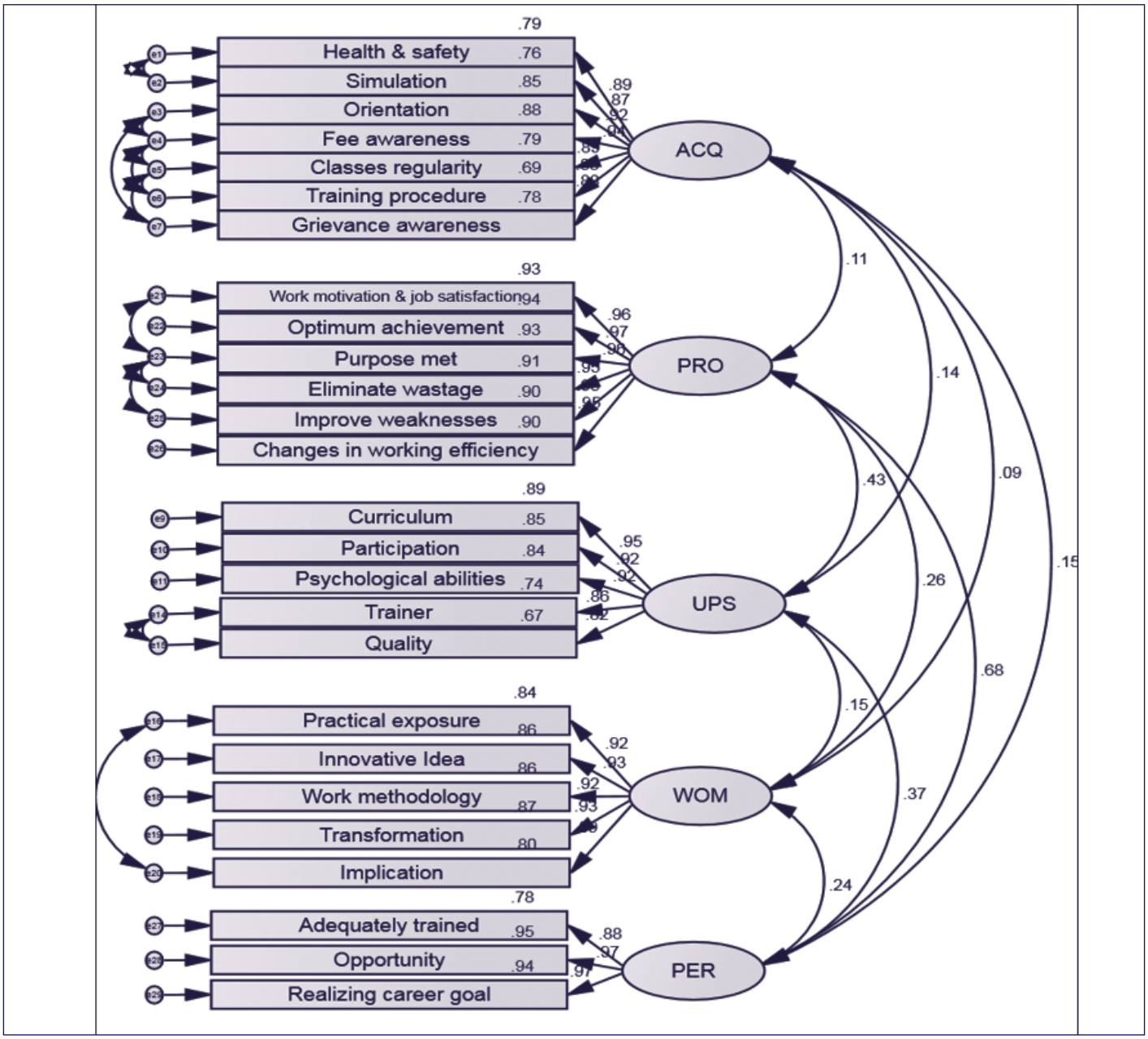
This is a test of the consistency of the respondent's answers to all the items in the measure. The obtained value of the overall measure is 0.931 Cronbach's alpha which is greater than the 0.70 and indicates the excellent consistency and acceptable for research. Descriptive study showed the plurality of respondents were 64.91 percent male and 35.09 percent female out of 1193 respondents in all. And male respondents dominate the survey. Most of the respondents are Senior Secondary 67.34 percent of total sample. The results clearly indicate that big parts if India are on the verge of seeking career possibilities for economic and livelihoods.

RESULTS

Confirmatory Factor Analysis (CFA)

Confirmatory factor analysis is a method of quantitative data analysis and belongs to structural equation modeling techniques (Mueller & Hancock, 2001). Confirmatory factor analysis commonly uses structural equation modeling approaches and carried out by using analysis of a moment structures. Structural equation modeling (SEM) tests unintended relationships with linear equation model and assumes a relationship between variables and factors. AMOS.24 program has been used in the present analysis for modeling structural equations. Modeling of structural equations is a technique which examined the suggested relationship between independent and dependent variables. Modeling of structural equations is a two-stage method. Stage one involves developing a model for confirmatory factor analysis, and then evaluating validity questions. Phase two includes planned testing of the model. In other words, after the validity test of the measurement model, the adjustment is based on the program Adjustment Indices (MI) recommendation and developed modified model in Figure 1.

Figure 1. CFA Model Fit



Validity and Reliability Check

For CFA convergent validity, discriminant validity and reliability check is absolutely necessary (Hair et al., 2006). Validity is the amount of the accurateness of an item used in a study (Linn, R.L, 2000). The following are measures to check convergent Validity and discriminant Validity. Table 1 shows the summary of Validity and Reliability check of CFA model. All the construct values are acceptable for further analysis.

Table 1. Summary of Validity and Reliability check

Factor	CR	AVE	MSV	MaxR(H)	WOM	ACQ	PRO	UPS	PER
WOM	0.966	0.852	0.068	0.967	**0.923**				
ACQ	0.964	0.769	0.030	0.965	0.105	**0.877**			
PRO	0.986	0.919	0.479	0.986	0.261	0.127	**0.959**		
UPS	0.958	0.767	0.186	0.963	0.155	0.162	0.431	**0.876**	
PER	0.961	0.860	0.479	0.976	0.244	0.174	0.692	0.368	**0.928**

Note:

- Diagonal value of factor > Non diagonal value for discriminant validity (Kesharwani & Tiwari, 2011)
- CR: Composite Reliability should be CR > 0.7
- CR: Composite Reliability > AVE: Average Variance Extracted
- AVE: Average Variance Extracted should be AVE > 0.5
- MSV : Maximum Shared Variance should be MSV < AVE
- MaxR (H): Maximal Reliability should be H > CR

Common Method Bias (CMB)

Common method bias denotes a bias of dataset apart from the measures (Podsakoff, et al., 2003). A common method bias represents influenced responses and majority of the variance is described by a single factor. Common latent factor (CLF) method captures the common variance between the all observed variables. In this method, add another latent factor in the CFA measurement model. After adding and connecting the common latent factor (CLF) all observed variable standardized regression weights is compared of both the models (with and without CLF). The difference between both the standardized regression weights should not be more than 0.200. Analysis show difference of both the models (with and without CLF) is <0.200 which reflects the data is free from bias.

CFA Measurement Model fit

After evaluating model validation and biasness check, the fitness of CFA measurement model was analyzed by using AMOS 24. The appropriateness of the model was scrutinized before scan the hypothesis and the assessed structure relationship. For this, various model fit indices or measures were used to confirm the model structure. The appropriateness of the model was scrutinized and various model fit indices or measures were used to assess structure relationship. According to Table 2, all Confirmatory factor analysis model fit indices are within the acceptance level and demonstrate good fit model.

Table 2. CFA Model Fit Indices

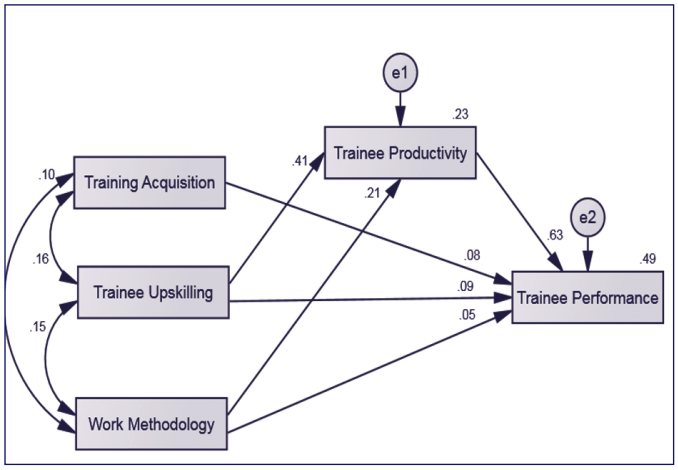
Acceptance Level	Actual Value	
P-value >0.05 (Not Ap-(plicable for sample >200	0.000	Not Appropriate for this study as sample size is 1193
Chi-Square/ df < 3.0 and should be less than < 5.0	4.276	Within Acceptance limit
GFI >0.90	0.930	Within Acceptance limit
NFI > 0.90	0.972	Within Acceptance limit
CFI > 0.90	0.979	Within Acceptance limit
RMSEA <0.08	0.052	Within Acceptance limit

Source: Author's Calculation

LATENT VARIABLES MODEL

Latent Variables model is prepared with imputed score considering the pattern and estimated parameter of CFA Model. This model is design according to the predetermine attributes of skill development training program. A skill development training program is claimed to be effective only when training outcome matches with its objective that is trainee productivity and performance outcomes. Trainee productivity and performance directly depends upon the training attributes. Figure 2 shows the path diagram model constructed on training attributes of Skill Development with standardized parameter estimate.

Figure 2. Latent Variables Model



In this latent variable path diagram there are five confirming factor that is training acquisition, upskilling, work methodology, productivity and performance. These factors affect the influences of skill development training depends on variable. In this model, independent variables include training acquisition, upskilling and work methodology while dependent variable includes productivity of trainee and performance. Intervening

variables includes in training acquisition such as the structure and formality of the educational environment or trainer's ability to engage trainee with stated curriculum or contextual attributes which directly affect the trainee performance. For testing hypothesis the relationship between independent variable and dependent variable were analyzed. Significant p value less than 0.05 shows that independent variable have a significant impact on dependent variable. Significant p value is depending on the critical ratio, when the it is greater than 1.96 for a regression weight, then the significant p values is significant. In Table 3 p-value column *** indicate significance less than .001.

Table 3. Latent Variables Relationship

Relationship			Estimate	S.E.	C.R.	P-values	Label
PRO	<---	UPS	0.811	0.051	15.936	***	Significant
PRO	<---	WOM	0.239	0.03	8.046	***	Significant
PER	<---	UPS	0.106	0.028	3.760	***	Significant
PER	<---	ACQ	0.084	0.023	3.601	***	Significant
PER	<---	WOM	0.039	0.015	2.562	0.01	Significant
PER	<---	PRO	0.388	0.014	26.868	***	Significant

Source: Author's Calculation

Note: *** shows p value is <0.001

Result of tested hypothesis on the basis of p value obtains in Table 3, which is less than 0.05. All result is significant and hypothesis is accepted. Hence independent variables training acquisition, upskilling and work methodology is directly influence the dependent variable trainee productivity and performance. Therefore both Hypotheses are accepted, there is a significant role and impact of skill development training acquisition, upskilling and change in working methodology on productivity and performance of youth.

DISCUSSION

Findings of this study supporting that skill development training has positive relationship and strong positive impact on trainee productivity and performance as a evidence. Training also promotes self-employment among unemployed youth. Training programs are very important for achieving excellence and skills in knowledge, skills, ability, potential, attitude and behavior in order to meet rapid technological changes and changes in work practices.

REFERENCE

1. *Agrawal, M., & Thakur, Prof. K. S. (2019). Impact of Pradhan Mantri Kaushal Vikas Yojana on the Productivity of Youth in Gwalior Region, India. International Journal of Recent Technology and Engineering (IJRTE), 8(4), 801–806. https://doi.org/10.35940/IJRTE.D7385.118419*
2. *Betcherman, G., Olivas, K., & Dar, A. (2004). Impacts of Active Labor Market Programs: New Evidence from Evaluations with Particular Attention to Developing and Transition Countries. World Bank Social Protection Discussion Paper 0402, Washington DC.*
3. *Desai, S.B., Dubey, A., Joshi, B.L., Sen., M., Sharif, A., & Vanneman, R. (2010). Human Development in India: Challenges for a Society in Transition. New Delhi: Oxford University Press.*
4. *Hair, J., Black, W., Babin, B., Anderson, R., & Tatham, R. (2006). Multivariate data analysis (6th ed.). Upper saddle River, N.J.: Pearson Prentice Hall.*
5. *Kesharwani, A., & Tiwari, R. (2011).I Exploration of Internet Banking Website Quality in India: A Webqual Approach Introduction. Great Lakes Herald, 5(1), 40-58.*
6. *Linn, R.L., Grondlund, N. E. (2000). Measurement and Assessment in Teaching. Eighth edition. New Jersey: Merril an imprint of Prentice Hall.*
7. *Misra, S. K. (2015).Skill Development: A Way to Leverage the Demographic Dividend in India. GSTF Journal on Business Review (GBR) 4 (2).*
8. *Mueller, R.O., & Hancock, G.R. (2001). International Encyclopedia of the Social & Behavioral Sciences.*
9. *Palit, D. A. (2009). Skill Development in India: Challenges & Strategies. ISAS Working Paper (89).*
10. *Podsakoff, P. M., MacKenzie, S. B., Lee, J-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. Journal of applied psychology, 88(5), 879.*
11. *Prasad, J. & Purohit D.G.M. (2017).Skill Development, Employability and Entrepreneurship through Make in India: A Study. Journal of Engineering Research and Application, ISSN: 2248-9622, 7 (12), 18-28.*
12. *Saini, V. (2015).Skill development in India: need, challenges and ways forward. Abhinav National Monthly Refereed Journal of Research in Arts & Education. Panjab University, Chandigarh, India.*
13. *Srija, A. & Sanghi, S. (2018). Skill Development and*

Productivity of the Workforce. Working Papers id: 12788, eSocialSciences.

AUTHORS

Dr. Mini Agrawal, Asst. Professor, Organization Behavior and Human Resource, Amity Business School, Amity University Madhya Pradesh, opposite Airport, Maharajpura, Gwalior – 474 005, (MP)
Email: mini.agrawal24@gmail.com

Dr. Hephzibah Beula John, Associate Professor, Organization Behavior and Human Resource, Amity Business School, Amity University Madhya Pradesh, opposite Airport, Maharajpura, Gwalior – 474 005, (MP)
Email: hepsij21@gmail.com

Dr. Arif Hasan, Asst. Professor, Organization Behavior and Human Resource, Amity Business School, Amity University Madhya Pradesh, opposite Airport, Maharajpura, Gwalior – 474 005, (MP)
Email: arifhasan135@gmail.com

Prof. K.S. Thakur, Dean, Faculty of Commerce, School of Commerce and Business Studies, Jiwaji University, Gwalior, Sachin Tendulkar Road, Kailash Nagar, Mahalgaon, Gwalior – 474 001, (MP)
Email: ks.thakur@rediffmail.com