Journal of Advances and Scholarly Researches in Allied Education
Vol. 13, Issue No. 2, July-2017, ISSN 2230-7540

The Study of Status of Higher Education in Haryana and Emerging Perspective for Economic Development

Ashok K. Pandey*

Research Scholar, The Institute of Advanced Studies in Education Deemed University, Sardarshahr, Rajasthan, India

Abstract – Education is an economic decent in light of the fact that it isn't effortlessly possible and in this manner should be distributed. Economists see education as both consumer and capital good since it offers utility to a customer and furthermore fills in as a contribution to the generation of different products and enterprises. As a capital decent, education can be utilized to build up the HR essential for economic and social change. The emphasis on education as a capital decent identifies with the idea of human capital, which underlines that the development of abilities is an essential factor underway exercise. Human capital formation is the result of interests in education, health, at work preparing, relocation and data. Of these education and health are essential sourcess of human capital development. We realize that our own is an elected nation with an association government, state governments and nearby governments (Metropolitan Partnerships, Districts and Town Panchayat). Uses on education and health have significant long haul effect and they can't be effectively turned around; henceforth, government intercession is basic.

Keywords: Higher Education, Economic Development, Haryana.

----------X----------

INTRODUCTION

Calls for extended higher education are every now and again in light of contentions that more graduates and post-graduates will prompt speedier economic development. Thusly, it barely needs any legitimization that entrance to higher education is a motor of economic development and in addition human improvement of any economy including Haryana. The importance of human capital for economic development was perceived in before times. The real commitment to the subject on the connection amongst training and economic development was first made by Adam Smith took after by Marhsall, Schultz, Bowman and others. Adam smith in his Abundance of Countries accentuated on state interest in training and other social zones. He felt that private business visionaries incited by benefit augmentation may not make sufficient interest in these divisions. Interest in training prompts the arrangement of human capital, practically identical to physical capital and social capital, and that makes a critical commitment to economic development (Dickens et al., 2006; Loening, 2004; Gylfason and Zoega, 2003; Barro, 2001). In such manner, numerous investigations have been produced using time to time everywhere throughout the world, by Becker, Denison, Dholakia, Harbison and Myers, Mukerji and Krishna Rao, Psacharopoulos, Schultz, Solow, Tilak and Todaro.

Haryana is generally a youthful state which appeared in 1966. At the point when Haryana appeared in 1966, there was just a single college and 40 expressions and science universities (Out of which 31 were general schools and 9 were ladies schools). Over the period, Haryana has turned out to be instructive center with expansive chain of instructive foundations. The endeavors of the general population of the State and the Legislature have prompted a phase, where Haryana has the qualification of having the third most elevated per capita wage after Goa and Sikkim. Keeping in above scenery, the present paper is an unassuming endeavor to exactly examine the entrance of higher education for economic development in Haryana. Survey of writing is displayed in area 2. Area 3 portrays the targets of study and information source. Area 4 breaks down the development of higher education in Haryana. Segment 5 researches the connection between higher education and economic development of Haryana and finally Area 6 features the conclusions with strategy suggestions.

LITERATURE SURVEY

To legitimize the need of the present investigation, following writing has been looked into:

In his investigation Barro (1991) features the connection between instructive uses and economic development. The examination found a positive connection between the development rate of genuine per capital yield and the level of school enrolment. The investigation contended that an expanding rate of interest in human capital advancement would close the improvement hole between the creating and created nations. Abbas (2001) considered the effect of instruction on the nations of Pakistan and Sri Lanka. Study demonstrated that the essential instruction negatively affects economic development, while optional and higher education have a positive and measurably huge effect on economic development in both the nations. Tilak, J.B. (2003) exhibits the huge impact of higher education on the economic development of countries by gathering information from 49 nations of the Asia Pacific area. This examination has likewise demonstrated that the bigger the load of the populace with higher education (HEA), the higher the prospects for economic development. Chaudhary, Iqbal and Gillani (2009) analyzed the part of higher education in economic development on account of Pakistan in the vicinity of 1972 and 2005. The examination connected Johansen co-combination and Yamamoto causality approach in VAR system and reasoned that unidirectional causality exists from economic development to higher education however no other causality exists from higher education to economic development in Pakistan. Bashir et al. (2012) in their examination broke down the connection between higher education development and economic development in West Virginia. Experimental outcomes demonstrate that there is sure connection between salary development and training development while instruction development contrarily impacts populace development in West Virginia. Goel M.M. what's more, Walia Suraj (2017)119 researched the connection between higher education and economic development in Haryana. The examination utilized slack relapse model and Johensen cointegrating procedure to decide the request or the cointegrating condition and after that Vector Blunder Amendment Show (VECM). The outcomes show long-run and short-run relationship exists among higher education and economic development of Haryana.

It is clear from the above writing that the over the timeframe, different investigations have been directed to features the significance of higher education for economic development.

RESEARCH METHODOLOGY

The present study is of analytical in nature and exclusively based on secondary data, which will be collected from various issues of Statistical Abstract of Haryana onwards from 1966. With a specific end goal to look at the connection between higher education and economic development in Haryana, higher education expenditure (HEE) is utilized as an intermediary for higher education and gross state domestic product (GSDP) for economic development and information has been gathered for a long time from 1990 to 2014.

The fundamental point of study is to look at the connection between higher education and economic development of Haryana. To analyze the same, we utilized Granger causality approach. Nonetheless, the prime necessity of this strategy is to test the request of combination and that is done through unit root test just or with a specific end goal to applying Granger Test, formation under thought i.e. GSDP and HEE must be stationary. Along these lines, we first spotlight the idea of unit root test and after that the cointegration and Granger causality method.

Unit Root Test: The unit root test is intended to know the stationarity of the factors. The strategy of this test is to relapse condition:

$$\Delta Y_t = \delta Y_{t-1} + U_t \qquad (1)$$

To test the null hypothesis that H0: 5=0 against an elective speculation HA: 5 'O. On the off chance that 5= 0, at that point p=l that time formation under thought is non-stationary. Be that as it may, if 5 < 0, at that point time formation is stationary. Increased Dickey-Fuller (ADF) test is assessed in three distinct structures or diverse invalid theories:

$$\Delta Y_t = \delta Y_{t-1} + U_t \qquad (2)$$

Y, is irregular stroll without float:

$$\Delta Y_t = \delta Y_{t-1} + U_t \qquad (2)$$

Y, is irregular stroll with float:

$$\Delta Y_t = \beta_1 + \delta Y_{t-1} + U_t \qquad (3)$$

Y, is irregular stroll with float around a stochastic pattern:

$$\Delta Y_t = \beta_1 + \beta_2 t + \delta Y_{t-1} + U_t \qquad (4)$$

In over three cases, Conventional Minimum Square (OLS) has been connected to assess condition (2), (3) and (4) and r measurement is registered.

Cointegration: The presence of long run harmony connection amongst X and Y is alluded to, in the writing as cointegration. Thusly, an essential

precondition to causality testing is to check the co-incorporating properties of the variable under thought.

For this Y, is relapsed on X, as:

$$Y_t = \alpha_0 + \alpha_1 X_t + U_t \qquad (5)$$

The test is exceptionally valuable to inspect the long run harmony connections between the factors.

Granger Causality Test: The test includes evaluating the accompanying pair of relapses: m m

$$Y_t = \alpha_0 + \sum_{i=1}^{m} \alpha_i X_{t-i} + \sum_{j=1}^{m} \beta_j Y_{t-j} + U_t \qquad (7)$$

$$X_t = \alpha_0 + \sum_{i=1}^{m} \alpha_i X_{t-i} + \sum_{j=1}^{m} \beta_j Y_{t-j} + U_t \qquad (8)$$

Sources of Data

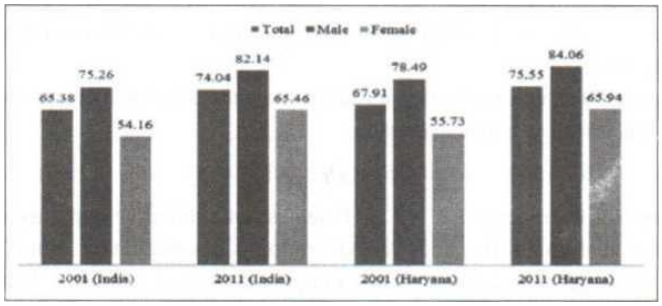
To achieve the objective of the present study, primary as well as secondary data will be collected from various government offices namely, -Economic and Statistical Advisor, Planning Department, Govt. of Haryana; Education Department, Govt. of Haryana; Auditor General Office of Haryana; Technical Education Department, Haryana; Census Office, Haryana. A large amount of state-wise data will be taken from available sources.

Development OF Higher education IN HARYANA

Over the timeframe, Haryana has gained enormous ground in general training including higher education. Proficiency rate is prime marker to know the instruction status of any economy including Haryana. To see the education rate, the accompanying figure uncovers the relative picture of proficiency rate in India and Haryana

Figure 1

Male-Female Proficiency Rate in India and Haryana

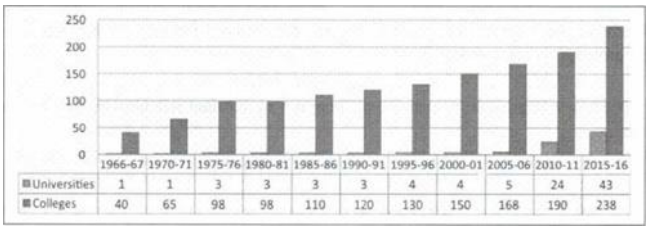


In Haryana, proficiency rate is higher than all India level. It was 67.91 out of 2001 and has expanded to 75.55 out of 2011. There is 7.64 for each penny point increment in education rate. Male proficiency rate was 78.49 and female education rate was 55.73 of every 2001. It expanded to 84.06 and 65.94 separately in 2011. There is 5.57 and 10.21 for each penny point increment in male and female proficiency rates.

The accompanying figure 2 indicates development of higher education as far as organizations (counting colleges and universities) in Haryana. It is obvious from the assume that there is exceptional increment in number of colleges and universities in Haryana from 1 and 40 out of 1966-67 to 43 and 238 of every 2015-16 separately.

Figure 2

Number of Colleges ft Universities (Expressions a Science) in Haryana



To make amend evaluation of higher education in Haryana, it is exceptionally fundamental to know the enrolments of young men and young ladies in higher education organizations. The accompanying table 1 introduces the photo of understudies selected in expressions, science and home science schools. In 1966-67 there were 27332 quantities of understudies were selected out of which 21603 (79.03 for every penny) were young men and 5729 (21.7 for every penny) were young ladies. Young lady's enrolment was only 21.7 for every penny of aggregate enrolment. This number has expanded to 352259 of every 2015-16, in which 163884 (47 for each penny) are young men and 188375 (53 for each penny) are young ladies. Young ladies are 48.39 for every penny of aggregate enrolment.

Table 1

Growth of Enrolments in Arts, Science and Home Science Colleges of Haryana

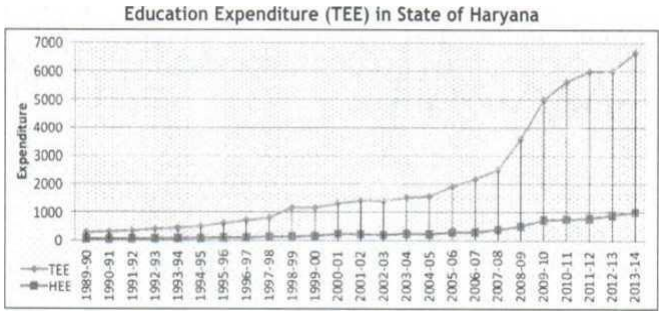
Year	Total		Boys	Girls
1966-67	27332		21603	5729
	(100)		(79)	(21)
1970-71	58444		46708	11736
	(100)		(80)	(20)
1975-76	72882		56018	16864
	(100)		(77)	(23)
1980-81	75863		53544	22319
		(100)	(71)	(29)
1985-86	105915		71753	34212
		(100)	(68)	(32)
1990-91	138405		91226	47179
		(100)	(66)	(34)
1995-96	120845		68676	51269
		(100)	(58)	(42)
2000-01	196537		111797	84740
		(100)	(57)	(43)
2005-06	192701		96238	96463
		(100)	(50)	(50)
2010-11	241926		107580	134346
		(100)	(44)	(56)
2015-16	352259		163884	188375
	(100)		(47)	(53)
CAGR (%)		6.7%	4.2	10.4

Source: Various Issues of Statistical Abstract of Haryana

One of another marker to judge the development or access of higher education in Haryana viz. consumption on training when all is said in done and higher education specifically. Use on instruction and higher education in Haryana is appeared from the accompanying figure 3. In 1989-90 add up to use brought about on training was Rs. 288.63 crores. Out of which Rs. 53.29 crores was spent on higher education. This was 18.46 for each penny of aggregate consumption caused on instruction. Also, in 2013-14 use on training rose to Rs. 6650.03 crores out of which Rs. 1001.85 crores was spent on higher education. It is 15.06 for each penny of aggregate use. Following figure uncovers the pattern of use on training in Haryana.

Figure 3

Consumption on Higher education (HEE) out of Aggregate



To sum things up, most likely noteworthy development has been occurred in higher education in Haryana since 1966 because of which State wage regarding GSDP and per capita wage has expanded complex.

RESULTS

CONNECTION BETWEEN HIGHER EDUCATION AND ECONOMIC DEVELOPMENT

Figure 4
Graphic Method (GSDP & HEE)

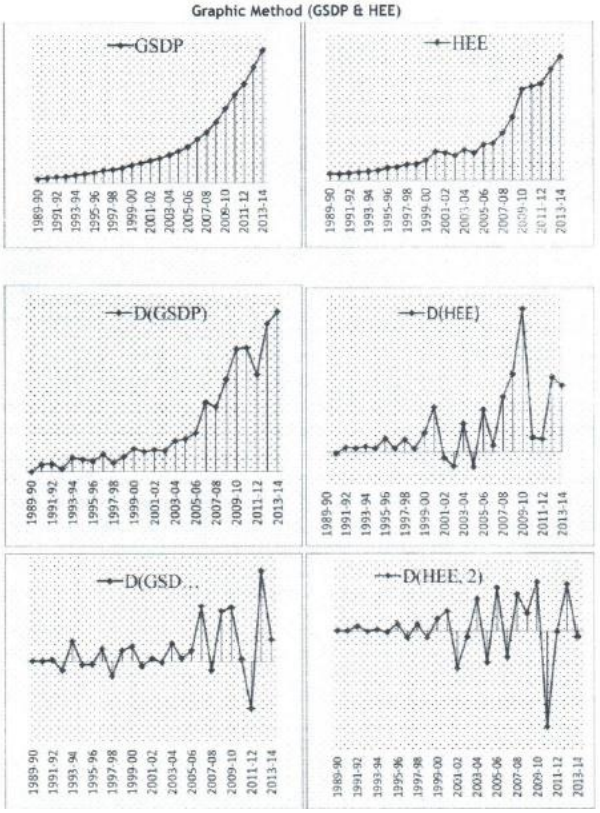


Table 3
Unit Root Test

Augmented Dickey-Fuller test for GSDP						
	At Level					
	Constant		Constant, Linear Trend		None	
	Critical Values	ADF T-Stat.	Critical Values	ADF T-Stat.	Critical Values	ADF T-Stat.
1% level	-3.737853	17.6997	-4.394309	6.98075	-2.664853	26.20728
5% level	-2.991878	(1.0000)	-3.612199	(1.0000)	-1.955681	(0.9999)
10%level	-2.635542		-3.243079		-1.608793	
Decision	Non-Stationary		Non-Stationary		Non-Stationary	
	At First Difference					
1% level	-3.788030	2.20793	-4.467895	-0.36796	-2.679735	3.56236
5% level	-3.012363	(0.9998)	-3.644963	(0.9819)	-1.958088	(0.9996)
10% Level	-2.646119		-3.261452		-1.607830	
Decision	Non-Stationary		Non-Stationary		Non-Stationary	
	At Second Difference					
1% level	-3.769597	-5.48559	-4.467895	-5.69283	-2.692358	-0.39759
5% level	-3.004861	(0.0002)	-3.644963	(0.0008)	-1.960171	(0.5269)
10% level	-2.642242		-3.261452		-1.607051	
Decision	Stationary		Stationary		Non-Stationary	
Augmented Dickey-Fuller test for HEE						
	At Level					
	Constant		Constant, Linear Trend		None	
	Critical Values	ADF T-Stat.	Critical Values	ADF T-Stat.	Critical Values	ADF T-Stat.
1% level	-3.737853	2.75815	-4.394309	-0.04588	-2.664853	4.74489
5% level	-2.991878	(1.0000)	-3.612199	(0.9928)	-1.955681	(1.0000)
10%level	-2.635542		-3.243079		-1.608793	
Decision	Non-Stationary		Non-Stationary		Non-Stationary	
	At First Difference					
1% level	-3.752946	-3.15211	-4.416345	-4.28059	-2.669359	-2.26262
5% level	-2.998064	(0.0365)	-3.622033	(0.0133)	-1.956406	(0.0257)
10%level	-2.638752		-3.248592		-1.608495	
Decision	Non-Stationary		Non-Stationary		Non-Stationary	
	At Second Difference					
1% level	-3.769597	-6.809365	-4.440739	-6.65530	-2.674290	-6.92081
5% level	-3.004861	(0.0000)	-3.632896	(0.0001)	-1.957204	(0.0000)
10%level	-2.642242		-3.254671		-1.608175	
Decision	Stationary		Stationary		Stationary	

Source: Authors Computation (2017) using E-Views 9.5 & Figures in parenthesis indicate probability

Table 4
Johansen Cointegration Test

Hypothesized No. of CE (s)	Eigen Value	Trace Statistic	Critical Value	Prob.**
None *	0.778326	44.41981	15.49471	0.0000
At most 1 *	0.346067	9.769261	3.841466	0.0018

Source: Authors Computation (2017) using E-Views 9.5
Trace test indicates 2 cointegrating equation (s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level & **MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE (s)	Eigen Value	Max-Eigen Statistic	Critical Value	Prob.**
None *	0.778326	34.65055	14.26460	0.0000
At most 1 *	0.346067	9.769261	3.841466	0.0018

Source: Authors Computation (2017) using E-Views 9.5
Max-eigenvalue test indicates 2 cointegrating equation (s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level & **MacKinnon-Haug-Michelis (1999) p-values

Table 5 Granger Causality Test

Lag Null Hypothesis	Observations F-Statistics	Prob. Decision
1. GSDP does not Granger Cause HEE HEE does not Granger Cause GSDP 2. GSDP does not Granger Cause HEE HEE does not Granger Cause GSDP 3. GSDP does not Granger Cause HEE HEE does not Granger Cause GSDP	24 7.57808 0.00270 23 6.54166 12.4502 22 5.20394 10.0967 0.0116* 0.0007*	0.0119* Reject Null at 1% 0.9591 Did not Reject 0.0073* Reject Null at 1% 0.0004* Reject Null at 1% Reject Null at 1% Reject Null at 1*

Source: Authors Computation (2017) using E-Views 9.5 and * Indicates significant at 1% level

Table 6 Direction of Causality between GSDP 6t HEE

Lag Length Results		Direction of
1,1	GSDP=>HEE,	Uni-directional
2, 2	GSDP=*HEE,	Bi-directional
3, 3	GSDP=*HEE,	Bi-directional

Source: Above Table

DISCUSSION

To avoid false relapse occurring in relapse demonstrate, we need to inspect the stationarity of every factor with realistic strategy and unit root test. In the present paper, we have utilized Enlarged Dickey-Fuller test to check the stationary of time arrangement. The aftereffects of realistic strategy demonstrate that Both GSDP and HEE wind up stationary at second contrast. The aftereffects of ADF demonstrate that both GSDP and HEE are non-stationary at level information and in addition first contrast on the grounds that at all levels ((a) Consistent (b) Steady and Direct pattern and (c) None) probabilities are in excess of 0.05 for every penny level. To get stationary factors, we have second request effect of every factor. What's more, we can watch that ADF estimations of the two factors GSDP, HEE are more prominent than basic level and likelihood is additionally under 0.05 for every penny which is attractive/perfect circumstance. Consequently GSDP and HEE end up stationary at second contrast, implies that we can apply granger causality test at second distinction information not at level information.

Having built up that the factors are stationary at second distinction, the following stage is to test for cointegration amongst GSDP and HEE. We can straightforwardly apply granger test on level information if the given arrangement discovered cointegrated. Johansen trial of Cointegration (Table 4) exhibits the Follow and Greatest Eigen esteem performed to decide the request of coordination; which both demonstrates that we dismiss the invalid speculation that none of the factors is cointegrated and at most one variable is cointegrated since p-esteem 0.0000<0.05, yet uncovered that the two factors under thought are cointegrated since p-values is more noteworthy than 0.05 for both Follow and Greatest Eigen esteem that is factors GSDP, HEE have long run relationship implying that at whatever point GSDP goes up HEE goes.

Presently, since the factors (GSDP, HEE) are cointegrated suggesting that use of Granger-causality test to GSDP and HEE in their unique shape won't deliver deceptive outcomes. Table 5 and 6 contains the consequences of Granger Causality test. If there should arise an occurrence of GSDP =>HEE, time slack 1 to 3, the figured F esteem is more than the basic estimation of F at 1 for every penny level of criticalness. In this manner at time slack 1 to 3, the invalid speculation is rejected which infers that GSDP granger causes HEE. Another case, HEE => GSDP additionally demonstrates that F-esteem is critical aside from 1 time slack. In this way from time slack 2 to 3, the invalid speculation is rejected which infers that HEE granger causes GSDP. While, in the event of time slack 1, the figured F esteem is not as much as the basic estimation of F, implies by didn't dismiss the invalid theory which suggests HEE doesn't granger causes GSDP.

In a nutshell, the outcomes affirmed that there is the nearness of bi-directional causality amongst HEE and GSDP that is HEE=> GSDP and in addition GSDP=>HEE.

CONCLUSION

In a word, critical development of higher education in Haryana has occurred in Haryana regarding proficiency rate, organizations, enrolments, use on higher education and so on. Because of this, advance of State as far as GSDP and per capita salary has expanded complex. Display paper likewise explored the connection between higher education and economic development in Haryana. The examination utilized realistic technique. Unit root test, Johensen co integrating procedure and after that Granger Causality test. The outcomes show that GSDP and

HEE wind up stationary at second contrast implies that no unit root issue exists at second distinction information. The aftereffects of Johensen Cointegration shows that factors GSDP and HEE are cointegrated implying that at whatever point GSDP goes up HEE goes and Granger Causality test recommends that bi-directional causality exists among the factors that is GSDP granger causes HEE and HEE granger causes GSDP.

Without a doubt, over the timeframe, huge development have been occurred in Haryana as far as state pay, per capita salary, horticulture generation, benefit area, infrastructural improvement and so forth. To make Haryana number one state in India as far as development/per capita wage or increment the pace of improvement in Haryana, Haryana needs to subjectively reinforce its training by and large and higher education with innovative work specifically. To build the entrance of higher education for improving the economic development of Haryana, there is rationale and justification to expand the administration consumption on training when all is said in done and higher education specifically. India including Haryana has statistic advantage as gigantic number of youngsters. To make the best, these youthful personalities should be given chances to getting to quality higher education. We require work drove development and for this, the push ought to be on nature of higher including professional/specialized training with important quality research according to necessities and prerequisites of an economy like Haryana.

REFERENCES

Beam, Sarbapriya (2013), "Does Training Spending of Government Truly Quicken Economic Development in India?" Money related and Quantitative Investigation, (1); 1-7, Sciknow Distributions Ltd. Reports of All India Overview of Higher education (AISHE)

Chandra, Abhijeet (2010). "Does Government Consumption on Training Advance Economic Development? An Econometric Examination" Jamia Millia Islamia (Focal College), New Delhi, MPRA Paper No. 25480. Goel, M.M. (2012 Second Release), 'Economic matters of Human Asset Improvement in India' VK Distributions, New Delhi ISBN:978-93-5058-014-I.

Goel, M.M. and Walia, Suraj (2017). "Higher education and Economic Development in Haryana: A Use of Cointegration and Vector Mistake Remedy Show (VECM) Approach" Multi-Disciplinary Worldwide Exploration Diary, Asian Reverberation (UGC affirmed Diary), Volume VI, Issue III, May 2017.

Goel, M.M. Et Walia, Suraj (2011). "Higher education: A Motor of Economic Development in Post Change India" Exploration Diary Sociologies, Panjab College, Chandigarh. Vol. 19, No.3 (2011).

Goel, M.M. Et Walia, Suraj (2011). "Training and Economic Development in Haryana (India): Utilizing Granger Causality Approach" in worldwide diary, Diary of South Asian Investigations, Vol.17-1 (2011).

Goel, M.M. Et Walia, Suraj (2015). "Indian Higher education: Patterns, Development 6 Difficulties" Worldwide Diary, Voice of Exploration, Volume 3, Issue 4, Walk 2015, PP: 33-38.

Goel, M.M. Et Walia, Suraj (2017). "Development Et Show Status of Higher education in Haryana: An Examination" Top Universal Diary of Multidisciplinary Exploration (UGC affirmed Diary), Volume V, Issue III, May 2017.

Mekdad, Yousra, Dahmani, Aziz and Louaj, Monir (2014). "Pubuc Spending on Training and Economic Development in Algeria: Causality Test" Worldwide Diary of Business and Manasement. Vol. II (3).

Pradhan, R. P. (2009). "Training and Economic Development in India: Utilizing Blunder Adjustment Demonstrating (ECM)" Global Exploration Jou. nat of Back and Economic aspects, ISSN 1450-2887. Issue 23 (2009).

Solanki, Melina (2013). "Connection amongst Instruction and Gross domestic product Development: A Bi-Variate Causality Examination for Greece" Worldwide Diary of Economic Practices and Speculations, 3(2), pp. 133-139

Corresponding Author

Ashok K. Pandey*

Research Scholar, The Institute of Advanced Studies in Education Deemed University, Sardarshahr, Rajasthan, India

E-Mail – ashokpdy@gmail.com