Chapter 6

Human Capital formation in Jammu and Kashmir: Stake holders' perception

Section I

6.1 Introduction

Investment in human capital increases productivity. Highly-qualified workers are found to contribute almost twice as much to productive efficiency as those with no qualifications at all (Jenkins 1995). Human capital connotes man in relationship to the world of work; that is work involving production of goods and provision of services of all kinds in the political, social, cultural and economic development of nations. The effect of human capital on household incomes is partly realized through the reallocation of labour from low productivity activities to nonfarm work (Fafchamps and Quisumbing 1998). It has been empirically investigated that education has positive relationship with technical efficiency (Burki and Shah 1998). Judson confirms correlation of human capital accumulation is not significant in countries with poor allocations but it is strongly significant and positive in countries with better allocations (Judson, 1998). Educated household members have comparative advantages in non-farming, which is consistent with our observations on labour allocation in the field (Kurosaki, 2001). Wilson confirms that increased investment in education is shown to lead to higher productivity and earnings for the individual and similarly, such investment results in significant social rates of return (Wilson and Briscoe (2004).

In Jammu and Kashmir, the process of human capital investment is carried out in many ways. The most obvious of them all is the formal education beginning with primary or first level education which is continued with various forms of secondary education and then higher education including teachers training and technical colleges, higher agricultural institutions and the universities. Given the less private sector opportunities the role of government in the development of the economy is obvious and is not exception with the human capital. In this chapter the link between government spending and labour efficiency is evaluated and examined through interaction with the respondents. The analysis of the standard of education imparted for the human capital development is also done. The chapter is divided into three sections. Section I provides the introduction and research methodology. Section II provides the analysis of perception of stakeholders. Section III provides summary and conclusion.

6.2 Methodology

This section deals with the method of collecting data, sources of the data collected and the procedure for analyzing the data collected.

6.2.1 Sources of Data

The data was gathered through structured questionnaire. A total of 150 questionnaires were issued to respondents, in three universities of Jammu and Kashmir. These are University of Kashmir (KU), University of Jammu (UJ) and Sher-e-Kashmir University of Agricultural Science and Technology (SKUSAT).

6.2.3 Method of Data Collection

The method of data collection used in this study is questionnaire. According to Dana the questionnaire is the principal means for generating data. A questionnaire is a series of questions asked to individuals to obtain statistically useful information about a given topic (Dana ,2011). When properly constructed and responsibly administered, questionnaires become a vital instrument by which statements can be made about specific groups or people or entire populations (Dana (2011). The form of questions adopted in this questionnaire was close ended. Close ended questions are adopted because of the problems of analyzing divergent opinions (Babbie 2003). The research questionnaire adopted for the study was structured into two segments. The first is concerned with extracting biographic and demographic data of the respondent; such as sex, age and educational qualifications. Section B consist of questions which were used in testing the hypothesis of this study, related to the nature of respondents compliance to investment in human capital.

6.2.2 Method of Data Analysis

The statistical method used for data analysis and description of the responses is the chi-square. Chi-square is a statistical technique used in testing hypothesis. It is used to draw inference on whether a group of observed frequencies deviate remarkably from the group of expected frequencies; the use of chi-square however is done when the data are in nominal scale or ordinal scale (Gujrati, 2007) (Rubin et.al2004).

Generally, X^2 distribution involves a discrete variable and it is employed in the analysis of enumeration data (Creswell, John 2008 Anderson, G. (1994), 1996). The formula for calculating chi-square is given below as:

$$X^2 = \frac{(O_i - \bar{E}_i)^2}{E_i}$$

Where, Oi = Observed frequency

Ei = Expected frequency

X2 = Chi Square

With (R-1) (C-1) degree of freedom

The decision rule is as follows: reject the null hypothesis if the calculated chi-square value is greater to the critical value otherwise accept null hypothesis.

Section II

6.3 An analysis of perception of the stake holders

In this section the analysis and results are discussed. For the hypothesis testing the necessary two tables based on the respondents preferences have been taken. The necessary details of the respondents are provided as well which includes age, sex and education qualification.

Table 6.1: Number of Respondents by Sex

Respondents	Number of respondents	Percentage (%)
Male	90	60
Female	60	40
Total	150	100

Source: Primary survey

Table 6.2 Number of respondents by age

Respondents age	No of respondents	Percentage
20-25	64	42.8
26-30	41	27.33
31-35	19	12.66
36-40	15	10
41 above	11	7.33
Total	150	100

Source: Primary survey

Table 6.3: Number of respondents by qualification

Respondents	Number of respondents	Percentage
UG	40	26.7
PG	68	45.3
Others	42	28
Total	150	100

Source: Primary survey

Table 6.4: Role of state in financing education

Respondent's	Kashmir university	SKUAST	Jammu University	Total
Agreed	37	24	19	80
Disagreed	9	14	22	45
Undecided	4	12	9	25
Total	50	50	50	150

Source: Primary survey

The responses from the three categories of the respondents show that 53.3% i.e. 80 of the respondents agreed that respective government in Jammu and Kashmir have not funded education adequately, thus affecting human capital investment, 33% i.e. 45 disagreed on the question while 16.7% i.e. 25 respondents were undecided.

Table 6.5: Structuring and school curriculum: Respondents view

Respondents	Kashmir University	SKUAST	Jammu university	Total
Agreed	33	28	30	91
Disagreed	8	12	14	34
undecided	9	10	6	25
TOTAL	50	50	50	150

Source: Primary survey

Out of 150 respondents, 60.07 % (91) of the respondents agreed that the educational curriculum is not structured to meet the personnel requirements, 22.66 % (34) of the respondents disagreed while 16.66 % (25) were undecided.

Table 6.6: Educational Curriculum and sectorial growth

Respondents	UK	SKUSAT	JU	TOTAL
Agreed	31	29	34	94
Disagreed	10	9	7	26
undecided	9	12	9	30
TOTAL	50	50	50	150

Source: Primary survey

Out of 150 respondents, 62.06 % (94) of the respondents agreed that the educational curriculum is not structured to meet the sectorial

requirements of Jammu and Kashmir, 17.33 % (26) of the respondents disagreed while 20 % (30) were undecided.

Table 6.7: Role of education in improving labour market efficiency

Respondents	Kashmir University	SKUSAT	Jammu University	Total
Agreed	32	27	21	80
Disagreed	11	11	15	37
undecided	7	12	14	33
TOTAL	50	50	50	150

Source: Primary survey

Out of 150 respondents, 53.33 % (80) of the respondents agreed that the educational curricular is not structured to meet the personnel requirements of Jammu and Kashmir, 24.66 % (37) of the respondents disagreed while 22 % (33) were undecided.

Table 6.8: Role of state in funding education

Respondent's	Kashmir university	SKUAST	Jammu University	Total
Agreed	37	24	19	80
Disagreed	9	14	22	45
Undecided	4	12	9	25
Total	50	50	50	150

Source: Primary survey

The degree of freedom = (R-1) (C-1)

Where R = Rows, C = Columns, thus, from the table above:

(3 – 1) (3 – 1) = 4

The observed frequencies (Oi) of the observations:

O11 = 37, O12 = 24, O13 = 19

O21 = 9, O22 = 14, O23 = 22

O31 = 4, O32 = 12, O33 = 9

The nine (9) corresponding expected frequencies (Ei) are as follows:

E11= 26.7, E12 = 26.7, E13 = 26.7

E21 = 15, E22 = 15, E23 = 15

E31 = 8.33, E32 = 8.33, E33 = 8.33

Table 6.9: Computation of the Calculated Chi Square Table (CalX2)

Oi	Ei	(Oi-Ei)	$(Oi-Ei)^2$	$(Oi-Ei)^2/Ei)$
37	26.7	10.3	106.09	3.97
24	26.7	-2.7	7.29	0.27
19	26.7	-7.7	59.29	2.22
9	15	-6	36	2.4
14	15	-1	1	0.066
22	15	7	49	3.26
4	8.33	-4.33	18.7489	2.25

12	8.33	3.67	13.4689	1.61
9	8.33	0.67	0.4489	0.053
				16.12

Source: Researcher's Computation.

It can be summarized that poor funding means different things here. Poor funding connotes actual low investment of the government in the higher education, mismanagement, inefficiencies, lack of focus on the skill oriented programs which demand investment, lack of alternative forms of investment like privatization that is not fulfilled by government spending.

It can be inferred from the poor funding that the gap in the infrastructure with respect to higher education comparing with the rest of the states is much more.

The lack of skill orientation programmers is missing. The traditional tool of imparting education and developing skills in the students in the higher education is still presented.

Poor funding also highlights the need of increasing the scholarships for the deserving students in the state. Poor funding discussed by the respondents also depicts the lack of incentives for the students to explore the different opportunities in different fields.

Table 6.10 Role of education in increasing efficiency

Respondents	UK	SKUST	JU	TOTAL
Agreed	32	27	21	80
Disagreed	11	11	15	37
undecided	7	12	14	33
TOTAL	50	50	50	150

The degree of freedom = (R-1) (C-1)

Where R = Rows, C = Columns, thus, from the table above:

(3 – 1) (3 – 1) = 4

The observed frequencies (Oi) of the observations:

O11 = 32 O12 = 27, O13 = 21

O21 = 11, O22 = 11, O23 = 15

O31 = 7, O32 = 12, O33 = 14

The nine (9) corresponding expected frequencies (Ei) are asfollows:

E11= 26.7, E12 = 26.7, E13 = 26.7

E21 = 12.3, E22 = 12.3, E23 = 12.3

E31 = 11, E32 = 11, E33 = 11

Table 6.11 Computation of the Calculated Chi Square Table (CalX2)

Oi	Ei	(Oi-Ei)	(Oi-Ei) s	(Oi-Ei)s/Ei)
32	26.7	5.3	28.09	1.05206
27	26.7	0.3	0.09	0.003371
21	26.7	-5.7	32.49	1.216854
11	12.3	-1.3	1.69	0.137398
11	12.3	-1.3	1.69	0.137398
15	12.3	2.7	7.29	0.592683
7	11	-4	16	1.454545
12	11	1	1	0.090909
14	11	3	9	0.818182
				5.503

From the chi-square table, since the calculated X2 (i.e. 5.503) is less than tabulated X2 (i.e. 9.488), we accept the null hypothesis (H0). Therefore, we conclude that an effort of respective government towards human capital has not made significant impact on labour efficiency (returns monetary) in Jammu and Kashmir.

The term labour efficiency needs a clarification with respective hypothesis. Labour efficiency in economic language means the increment in the labour productivity with given situation. It means when the extra output is increased with the given labour hours. The whole efficiency can exists when one utilize the potential in any field. Here the respondents in the respective area were from different fields and were not aware about the term of efficiency in economic terms so the term labour efficiency was taken in the ordinary language which means “utilization of the imparted skills” or utilization of existing skills. So the hypothesis in its true meaning

means the link of government efforts towards utilizing the respective skills as well.

There are many justifications for the questions as far as the respondents are concerned. The state of Jammu and Kashmir is the state with more scope for the privatization but very less existing private investment in the form of industries and opening new opportunities. Given this fact the whole eyes of the educated youth with different skills rested on the government sector.

Labour efficiency means the skills imparted in the youth have not been utilized by the government in the state. The respective efforts of the government have actually failed in the context. The state is only the state in the country which has the bulk of educated unemployed youth.

The discussion with the respondents leads one to conclude that the scope for the utilization of the skills is missing in the state which leads to brain drain in the state.

The Gap between imparting skills and requirement in the market for the utilization is another constraint in the labour efficiency in the state.

The government has also failed to bridge the gap between the supply and demand in the job markets. The educated youth after achieving the skills are not absorbed by the market as private sector is missing and second way to absorb educated youth rests with the government but government allocation has failed

Section III

Summary and conclusions

This chapter gave an overview of investment in human capital and its Impact on the labour efficiency in Jammu and Kashmir. It focused on three higher institutions in State University of Kashmir, University of Jammu and SKUAST.

Major Findings

Based on the views of the respondents it can be concluded that poor funding by the state government is responsible for low development of human capital in Jammu and Kashmir with respect to imparting skills which are need of the hour and utilization of existing skills.

That efforts of the respective government towards human capital have not made significant impact on labour efficiency in Jammu and Kashmir because of the fact that both the curriculum and standard are construct and that skills are imparted which are not absorbed in the market.

Respective efforts of the government have failed to channels the resources of human for the improvement of the growth of the economy. The gap of infrastructure between the institutes is increasing in the state. The labour efficiency of the students has remained underutilized and no efforts are made to increase the efficiency by increasing the production through diverting the human capital in industrial sector or service sectors due to that the alarming brain drain may be faced in the future.

Policy Recommendations

The government needs to increase funding on education and human capital development as well as raise the quality of education in the state.

There is need of public private partnership in the area of research and development in higher institutions to minimize the gaps of infrastructure.

Increase the entrepreneurial abilities by imparting the skills in the higher education. Efforts are needed from the government side to create the assets in-order to absorb the youth in the job oriented sectors.

Incentives for the privatization are important to increase the jobs and saving state from underutilization of the human capital.

The curriculum should be changed from less matched with market requirements to more matched with market requirements.

Job creation is the need of the hour in the economy of Jammu and Kashmir.

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