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Skill Mismatch among University Graduates and Labor Market In Azad Jammu And Kashmir

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Abstract

The academic literature exhibited that graduate students from various universities in Azad Jammu and Kashmir (hereinafter AJ&K) are not well equipped with the required skills of the labor market. The current study intended to highlight the skill-gap between the demand of the labor market and the acquired skills of the university students by focusing on their qualification and technical skill gap. The researchers collected the primary data from employees working in manufacturing, educational, health, banking and telecommunication sectors through questionnaire from all the districts of AJ&K. The researchers deployed descriptive analysis (mean, standard deviation and frequency) and simple linear regression model to find out the skill mismatch. Overall finding indicated a noteworthy significant disparity between demand and supply of all the skills. In numerous fields, there is dozens of people who are available for a single job that create unemployment and notably advance skilled people are available in social sciences. There was intense competition in medical and to some extent in social sciences. According to the survey, mostly people are dissatisfied with their official grades and corresponding salaries. The study advocates for strategic approach to remove skill mismatch suggesting that people should select a degree which is geared up for a specific career and start own businesses because self-employment is one of the effective ways to gain job satisfaction.

Key words: Skill mismatch, subject area, employed university graduates, labour market educational sector, banking, telecommunication, health sector, manufacturing sector, AJ&K.

1. INTRODUCTION

In our progressively complex world, it's not easy to unleash the full potential of each individual. There is a significant gap between skills demanded and skills supplied globally and Azad and Jammu and Kashmir is no exception. Despite having highly educated labor force abundantly available in the region, most of the individuals are underemployed. Saint *et al.* (2004) argues that educational standards have fallen over past years, lower standards of education is the chief cause of lack of communication, technical & others skills among university graduates. The widening gap between demand and supply of skills has detrimental impact on several companies and organization, diminished quality of education de-escalated the productivity of the graduates. The decline in educational quality and skills are highly interconnected and negatively affected the productivity of organizations and companies. Moreover higher wages of over-educated employees elevated the cost of recruitment, to shrunken the market loss employers implied a larger workload on previously employed workers. Furthermore, skill mismatch not only adversely impact individual organizations rather hampers economic growth, competitiveness and innovative capability and competitiveness at macro-economic level, labor market imbalances are the aftermath of skill mismatch (Longe1999). This study collected data from all districts of Azad Jammu and Kashmir including various industries and organizations. Researchers investigated data of five diverse key sectors namely educational sector (including all public and private educational institutions), manufacturing (industries), telecommunication sector (all franchises and medical transcription billing company), health sector (all public and private hospitals and dispensaries) and banking sector (all public and private banks). Around 1.3 Billion people across Asia and Africa are not satisfied with their pay-scales and salaries due to mismatch of their qualification and designation. Aforementioned figure is expected to elongate to 1.4 billion in 2030 (Bikkulova *et al.* (2020)). Three divisions namely Muzaffarabad, Poonch and Mirpur, 33 tehsils, 256 union councils and 10 districts fall within the region of Azad Jammu and Kashmir. The above discussion led to the formulation of the following statement of research problems:

“Occurrence of mismatch between skills-supplied and skills-demanded is the enigma in labor market of Azad Jammu & Kashmir. Unusual enrollment in universities enlarged the unemployment in the society. This condition can be disastrous for economic growth, development and living standard of citizens. So this study enquires the head-scratching situation

of skills mismatch among university graduates in labor market of Azad Jamu and Kashmir”. Consequently, following research questions coupled with hypothesis were coined and formed: What type of skills demanded by employers corresponding to the nature of job? What type of skills is being prompted by educational institutes of Azad Jamu and Kashmir? Extant of mismatch between the skills acquired by university graduates and skills demanded by job providing organizations? In addition to this, the present study formed the following two hypotheses: “There is a no significance difference between the skills produced by university graduates and skills demanded in labor market”, and “There is a significance difference Between the skills produced by university graduates and skills demanded in labor market”. It is expected that the current study will be beneficial for educational institutes to revise their course content to best meet the needs of organizations. Likewise, the study would be helpful to human resource (HR) professionals to understand the type of skill mismatch and the extent to which it is present in the labor market. In addition, On the basis of proposed research recruiters can metamorphosis their existing hiring policy and can frame alternative recruitment policies to evade skill mismatch.

The present study, other than introductory section, has six sections. The second section offers the review of the literature of theoretical and empirical studies, and the third section describes the methodology. The fourth section presents the findings and the discussion, the fifth section concludes the study, the sixth section speaks about the delimitations of the present study and the last section put forward specific recommendations.

2. REVIEW OF LITERATURE

2.1 THEORITICAL

2.1.1 Matching theory of educational mismatch

Astronomic landscape of academic papers and research articles attempted to elaborate the canvas of skills mismatched. Ordine and Rose (2017) argued that existing mismatch in labor market is welded with under-education and over-education of individuals. Study articulates that magnification of participation in higher-education will supposedly assist in demoting the prevalence of mismatch. Preceding solution is deduced from the fact that most organizations

prefer to employ college graduates. Despite an individual knowledge about job, chances of acquiring job in college graduate is higher as compared to a person who has practical knowledge but lacking a professional degree. The occurrence of skill mismatch also rooted in the fact that sometimes individuals are forced to apply for the job that graduates maybe unfamiliar with.

2.1.2 Job- fit Theory

Personality-job fit theory of Kim and Choi (2018) reasoned that the nature of characteristics of every organization and individual can differ. This theory argues that enhancement of production and likelihood of task completion heavily depends on resemblance of traits of employee and organization. Parallelism in characteristics of individual and organization positively affects the production and performance. The “right person for the right job” diminishes occupation proceeds, pressure, absence, and pitiable job-satisfaction. Person-environment fit is a match among a worker's abilities, morals and managerial demands. As resemblance of traits proliferates among employee and employer, the performance of an individual in his field of work enhances. Job-fit theory also focuses on the deviation of personal and organizational characteristics.

2.2 EMPERICAL

The phenomenon of skills mismatch underscores the disjunction between education or training investment made by individual and the evolving needs of labor market. Duncan and Hoffman (1981) conducted panel study of income data and concluded that forty percent of United States labor-force and about fifty percent of black males have more education that is necessary for their current job. Results revealed that there was no deadweight loss of resources that were spent on education, the individual return in one year of additional educational was positive and significant. Return to required education was greater than the return to surplus education.

Grip *et al.* (2007) used cognitive capability, over education, under education, job-worker mismatch, and control variables such as education level, age and gender. The Letter Digit Substitution test was used and Maastricht aging Study data. Over education did not lead to a decline in cognitive function over the six years period. While, undereducated workers faced less cognitive turn down with respect to their late recall abilities and their cognitive elasticity. Slonimczyk (2008) utilized educational attainment, over education, Surplus Education, Human

capital, Wages and used the current population survey from the time period 1983 to 2002. CPS Current Population Survey methodology was employed to create panel. The analysis was conducted separately for males and females. Returns to obligatory schooling were higher than the returns to attained education. Also, for workers with similar educational attainment, higher education level leads to decrease in earnings while lower education level leads to increases in them.

Slonimczyk (2011) used Current Population Survey (CPS) and log earnings, age or experience, qualification and education variable into three parts: required, surplus, and deficit, qualification used and the DOT data presented here. Finding unraveled that skill mismatch yielded in income inequality. The dramatic increase in over-education rates and premia accounts to increase in the Gini coefficient value for the period of the thirty years under analysis for both genders.

Oluyomi & Adedeji (2012) employed various variables such as investigative, entrepreneurial, critical thinking, communication, decision-making, information-technology, interpersonal, problem-solving, self-directed learning, technical, and numeracy. Study exercised purposive sampling technique and selected one town per geo-political zone and applied descriptive statistics, analysis of variance and t-tests for analysis. Overall investigations suggested that the relationship between skills-demanded and skills-supplied was negative. The descriptive survey research design was adopted for this study. A questionnaire assessing labor market demands and employees assessment was employed to gather data from supervisors and management personals on the prevailing labor market. Three hundred private and public organizations were included in the survey.

Mahuteauet *et al.* (2015) investigated the effect of educational mismatch on wages by utilizing the panel element of HILDA survey. Study also employed variables such that age, country of birth, ATSI status, disability status, marital status, and number of kids and pooled OLS model. Pooled OLS model for men was stronger than expected effect, in fixed effect and random effect with Mundlak correlation model in comparative with horizontal and vertical mismatch both.

Orbay and Aydede (2015) conducted research using variables such that hourly wage, marital status, gender, age square, regional and year fixed effects. Study employed household survey from the time period 2009-2012, RM method and ORU model to analyze the hypothesis.

Different industries used four recent household surveys from 2009 to 2012 and RM method. Overall results point out that wage loss of over-educated workers was significantly higher for older age. The rate of underutilization and production beat due to educational mismatch was substantial in Turkey. Wage loss of over-educated workers considerably increases with older age.

. Kukreja (2018) determined the 68th round of NSS employment and unemployment survey estimates that was conduct by National Sample Survey Organization and RM method. Study used variables such as wage gender, age, age square, marital status, regional and year fixed effects, the actual years of education, into required years of schooling. Paper employed ORU models on a cross section dataset of persons employed in India's T&C industry. Overall results depicted returns to excess education is positive then it is less in magnitude as compared to returns to essential education, suggestive of underutilization of excess education.

Kim and Choi (2018) used survey method, primary data and 2273 sample data used in the survey. The survey based on the 2013 Ph D. Research Survey from the institution for STEPI in Korea. The finding showed that the degree of job-mismatch of doctors had a significant effect on overall pay, job satisfaction, and concert. In particularly job mismatches of the Ph.D. workforce both negatively affected pay and job satisfaction.

Savilla and Farias (2019) examined the frequency of prerequisite and skill mismatches across different populations such as age groups, gender, and educational levels. Survey of Adult Skills-PIAAC and a national socioeconomic survey used in this study. Overall results showed that over education is increasing with point in time and affecting generally younger and higher educated workers.

Emmanue (2020) highlighted numerous shortcoming that matched Nigeria vocational schools and the resulting expertise. He used NBTE statistical data on the trends in the Nigerian Vocational schools. There were most revealed effect of skill mismatch in the labor market due to the high cost of employing a knowledge-able foreigner, low production inputs (due to unskilled labor), resources and time spent on further training. All above mentioned problems in turn negatively affect GDP and the national development of a country. Due to lake of skills mostly graduates are unemployed because companies' requirement is expertise. There is a big gap

between academia and industry, difference between academia and industry affects national growth. Study used variables such as economic security, psychological, behaviour, and wellbeing. All variables were negatively affected by skill mismatch.

3. METHODOLOGY

The research design outlines the processes related to data collection, data analysis, and the discussion and interpretation of the findings. This research was carried out on skill mismatch in AJ&K. It used a questioner investigation to examine the skill mismatch among university graduates in labor market over 385 respondents in the organizations of AJ&K. A face to face onsite self-administered survey was conducted using the multistage sampling technique and fifteen skills were used.

The researcher took five sectors; manufacturing, educational institutes, banks, telecommunications and health sectors. The targeted population was staff of institutions, owners of industries and telecommunication, doctors, bank's managers and bank's employee. AJ&K was designed as the target research population to study skill mismatch among university graduates in labor market.

Multistage sampling approach was used to collect data from AJ&K. This study is based on matching theory of assignment and theory of endogenous of professionalization. Micro data collected through multistage random sampling has been used for this study. According to AJ&K Bureau statistics, the DCRS (2017) inaugurated sampling frame for data collection.

Table 3.1 Stratification of districts of AJ&K for different sectors

Districts	Educational sec.	Health sec.	Banking	Manufacturing	Telecommunication Franchises& MTBC
Muzaffarabad	1439	474	73	47	6
Neelum	401	157	10	0	5
Jhelum	493	136	14	0	5
Bagh	1065	324	34	0	7
Haveili	361	108	5	0	5
Poonch	1184	514	51	28	5

Sudhnati	653	296	26	0	5
Kotli	1617	813	117	20	5
Mirpur	976	481	168	107	7
Bhimber	886	431	31	10	6

Source: AJ&K Statistical year book 2017. Local Govt. findings 2017

The population of Azad Jammu & Kashmir is 4.05 million but the researcher selected only five sectors (13649) and 5% significance level. This study is based on the descriptive survey research design and questionnaire titled “LAMADEAQ.” To collect information from staff of institutions, managers, employees, doctors and head of franchises to find mismatch in Azad Jammu and Kashmir.

Table 3.2 Sample Size and distribution of organizations sample

	Sectors	Health	Education	Banking	Tele.	Manufacturing
	Total	Hospitals (3739)	Institutes 9075	Banks (565)	Companies 58	Industries (212)
Poonch	Sample size	42	300	27	4	12
	Poonch	12	43	3	0	3
	Bagh	14	56	15	1	0
	Haveili	0	21	0	0	0
	Sudhnati	1	37	0	0	0
Muzaffarabad	Muzaffarabad	4	29	1	0	1
	Neelam Val.	2	13	3	1	0
	Haitian Bala	0	49	0	0	0
Mirpur	Mirpur	6	15	1	1	3
	Bhimber	1	22	1	1	3
	Kotli	2	15	3	0	2

Source: AJK Statistical year book 2017, Local government findings 2017

4. RESULTS AND DISCUSSION

Sample of 385 randomly selected individuals from Azad Jammu and Kashmir was taken and data was collected through questionnaire and personal interviews. Reliability shows the Cronbach’s Alpha of the questionnaire for each variable.

Table: 4.1 Statistics reliability

Cronbach’s Alpha	No of objects
0.817	30

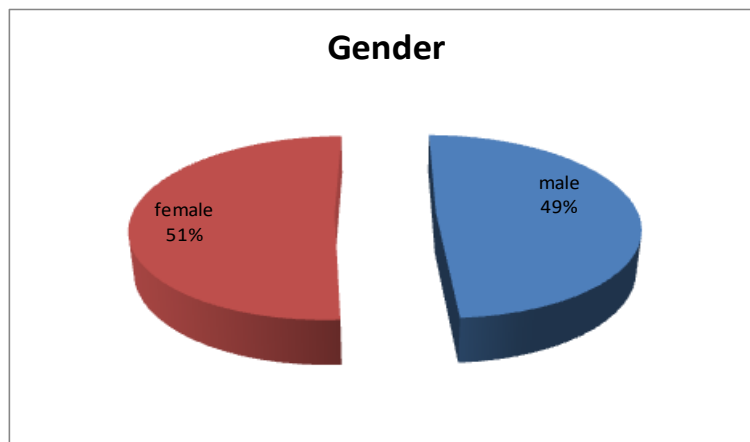
Author’s Own Calculation

Table 4.1 depicts that sixty one questions and thirty qualitative variables were included in research. The results are acceptable, the value of the instruments and value of Cronbach’s Alpha is significantly high.

4.2 DEMOGRAPHIC STATUS OF RESPONDENTS

This part consist frequency distribution analyses characteristic of respondents. Age of the respondent, gender, income, qualification, designation are the demographic variables used in this study.

Figure 4.1 Gender’s distribution



Author’s own calculation

Sample comprises 48.6% of males and 51.4% of females. The above figure 4.1 shows the proportion of males and females was almost equal.

Table 4.2 Distribution of education according to the years

Education	Percentage
10 years education	0.3
12 years education	1.0
14 years education	17.9
16 years education	60.8
18 years education	18.7
20 years education	1.3
Total	100.0

Author's Own Calculation

Education play vital role in every field of life. Table 4.2 unveils that majority of the respondents have 16 years education. According to the table people who had ten years education were only 0.3%, twelve years education were 1.0%, fourteen years education 17.6%, sixteen years education 60.8%, 18 years education 18.7% and who had twenty years education were 1.3%. Table 4.2 shows 78% of the respondents has higher education.

Table 4.3 Distribution of income according to the grades of respondents

Income Rs:	Percentage
Below 31000	38
Between 31000-51000	29
51000-71000	7
71000-91000	11
91000-111000	5
111000-131000	5
131000-151000	4
151000-171000	0

171000-191000	0
191000-211000	0.25
Total	100.00

Author's Own Calculation

After analysing the data the researcher concluded that 38% people's income lie below the range of 31000, 29% lie between the range of 31000 to 51000, 7% lie 5100 to 71000, 11% lie 71000 to 91000, 5% lie 91000 to 111000 and from 11100 to 131000 also lie 5%, 4% lie between 131000 to 151000 and 0.25 people lie in the range of 191000 to 211000. According to the table, general perception is that mostly people's income range lie 31000 and only 0.2% people's income is high that is 211000.

Table 4.4 Distribution of designation of respondents

Designation	Percentage
BPS-7	49.4
BPS-9	10.38
BPS-14	.5
BPS-16	5.2
BPS-17	17.40
BPS-18	1.2
BPS-19	.5
HRM	.5
OG-1	4.4
OG-2	2.3
OG-3	3.1
Owner	4.9
Total	100.00

Author's Own Calculation

After analyzing the data the table 4.6 shows that people who relate from the BPS-14 grade were 0.5%, BPS-16 grade 5.2% , BPS-17 grade 17.40%, BPS-18 grade 1.2%, BPS-19

grade 0.5%, BPS-7 grade 49.4%, BPS-9 grade 10.38% and who were from HRM were 0.5%. I also collected the data from banks, people who were from OG-1 were 4.4%, OG-2 (2.3%), and from OG-3 were 3.1%. Manufacturing and telecommunication side people gave response that was 4.9%. General perception of this finding is, mostly people relate to the BPS-7 grade that is not according to their education that’s why skill mismatch exist here. Many educated people have no job or they are working in the lower grade. It is great mismatch among university graduates in labor market in Azad Jammu and Kashmir. We compared this table to the previous table (4.5) then results suggest that mostly educated people (16, 18 or 20 year’s education) have low grade, mostly from grade 7 and 9. So there is a huge difference between qualification and grade.

4.3 SOCIAL AND ECONOMIC CONDITION IN DIFFERENT AREAS

The researcher found the comparison of availability of eligible person in different subject area in different organization of AJ&K. Data were analyzed using descriptive (crosstab) and found chi-square test.

Table: 4.5 Comparison of availability of eligible person in different subject area

		Extremely over-skilled	Over skilled	Enough	Under skilled	Extremely under-skilled	Total
Subject area?	Medical	13	12	15	2	0	42
	Engineering	6	6	0	0	0	12
	social sci.	80	17	29	4	4	134
	pure sci.	11	6	3	1	2	23
	Natural sci.	42	6	7	0	5	60
	Arts & ling	55	14	14	4	0	87
	Commerce	19	0	6	2	0	27
	Total	226	61	74	13	11	385
Chi-square test = 59.249				P-value =.000			

Author’s Own Calculation

The researcher compared subject area with the opinion about availability of eligible person in current job. The researcher found that in the field of medical extremely over-skilled persons were 13(31.0%), over-skilled 12(28.6%), enough 15(35.7%), under-skilled 2(4.8%) and extremely under-skilled 0%. General perception about availability of eligible person in medical is that mostly people are skilled means dozens of people are available against one job, only 4.7% posts remain vacant. Extremely over-skilled 6(50.0%) and over-skilled persons in Engineering were 6 (50.0%), in social sciences extremely-overskilled persons were 80 (59.7%), over-skilled 17(12.7%), enough 29 (21.6%), under-skilled 4(3.0%), extremely under-skilled 4(3.0%), and finding suggests that in engineering and social sciences dozens people are available for a single job. Extremely over-skilled were 42(70.0%) in natural sciences, over-skilled 6(10.0%), enough 7(11.7%), under-skilled 0%, extremely-under skilled 5(8.3%). In pure sciences extremely over-skilled person were 11(47.8%), over-skilled 6(26.1%), enough 3(13.0%), under-skilled 1(4.3%), extremely over-skilled 2(8.7%). There are also many people available for a single job in both natural and pure sciences. In Arts and linguistic extremely over-skilled 55(63.2%), over-skilled 14(16.1%), enough 14(16.1%), under-skilled 4(4.6%), extremely over-skilled 0%,in commerce extremely over-skilled 19(70.4%), over-skilled 0%, enough 6(22.2%), under-skilled 2(7.4%), extremely over-skilled 0% and its highest level is 19(70.4%) of extremely overskilled.

Overall finding of subject area with the availability of eligible person is that in medical 10.9% person available, engineering 3.1%, social sciences 34.8%, pure sciences 6.0%, natural sciences 15.6%, arts and linguistics 22.6%, commerce 7.0%, and highest level of eligible person's availability in social sciences and lowest level in pure sciences. After analyzing the data the researcher concluded the opinion of people about the availability of eligible person in subject area of their current job, every subject has a dozens of people are available for a single job and this is a biggest problem that create unemployment. General perception is that most overskilled and enough people available in social sciences, under skilled are in arts and linguistic and social sciences, and extremely under skilled in natural sciences. All the subjects have available sample of extremely overskilled person for current job. In medical 60% , engineering 100%, social sciences 72%, pure sciences 74%, natural sciences 80%, arts and linguistic 79% and in commerce 70% extremely overskilled persons available. Chi-square test (59.249) measures the relationship between the availability of persons and the subject type. Chi-square test as

significant results with t-value .000 that shows all the subjects have extremely over skilled or skilled persons available for current job. Educated people are more than the availability of job that’s why unemployment increases.

4.4 ANALYSIS FOR SKILL DEMANDED

To find out the educational gap and skill formation among university graduates, the researcher found the skills that are required for the employee according to the nature of job. Now a day’s skill demanded is a main issue because in Azad Jammu and Kashmir mostly qualified people have no job according to their qualification. Below table explained that how much different skills are demanded in different organizations.

Table 4.6 Demanding skills from University Graduates through Employee

Sr. No.	Skills	Very needed(weight=1)	Needed (weight=2)	Less needed(weight=3)	Not needed(weight=4)	Mean	SD
1	Analytical Skills	173 (44.9)	189(49.1)	19 (4.9)	4 (1.0)	1.620	.630
2	Entrepreneurial	111 (28.8)	217(56.4)	50 (13.0)	7(1.8)	1.877	.690
3	Critical Thinking	164 (42.6)	175(45.5)	44 (11.4)	2 (.5)	1.698	.686
4	Communication	215 (55.8)	140(36.4)	23 (6.0)	5 (1.3)	1.522	.669
5	Decision Making	215 (55.8)	141(36.6)	24 (6.2)	5 (1.3)	1.529	.672
6	Information Tech.	217 (56.4)	140(36.4)	26 (6.8)	2 (.5)	1.514	.645
7	Interpersonal	197 (51.2)	163(42.3)	23 (6.0)	2(.5)	1.558	.631
8	Problem Solving	228 (59.2)	136(35.3)	20(5.2)	1 (.3)	1.464	.607
9	Self-Directed Learning	198(51.4)	149(38.7)	36(9.4)	2(.5)	1.589	.679
10	Technical	193(50.1)	167(43.4)	24(6.2)	1(.3)	1.566	.621
11	Numeracy	148(38.4)	198(51.4)	33(8.6)	6(1.6)	1.732	.679
12	English proficiency & literacy	191(49.6)	170(44.2)	20(5.2)	4(1.0)	1.576	.641

13	ICT skills	200(51.9)	149(38.7)	30(7.8)	6(1.6)	1.58	.701
14	Team working	223(57.9)	134(34.8)	26(6.8)	2(.5)	1.498	.646
15	Leadership skills	219(56.9)	146(37.9)	19(4.9)	1(.3)	1.485	.604
Weighted average = 1.58				Percentage in parenthesis			

Author's Own Calculation

From above table shows that group of skills is considered critical through the employee of labor. These skills included such as analytical 'mean = 1.620, standard deviation = 0.630' which was demanded as very serious and entrepreneurial 'mean = 1.8779, standard deviation = 0.690', critical thinking 'mean = 1.698, standard deviation = 0.686', communication skills 'mean = 1.522, standard deviation = 0.669', decision-making 'mean = 1.52, standard deviation = 0.672', information technology 'mean = 1.514, standard deviation = 0.645', and interpersonal skills 'mean = 1.5584, standard deviation = 0.631' were required. Others skills included such as problem solving 'mean = 1.464, standard deviation = 0.607', self-directed learning 'mean = 1.589, standard deviation = 0.607', technical 'mean = 1.5662, standard deviation = 0.62199', numeracy 'mean = 1.732, standard deviation = 0.679', English proficiency and literacy skills 'mean = 1.576, standard deviation = 0.641', ICT 'mean = 1.589, standard deviation = 0.701', team working 'mean = 1.498, standard deviation = 0.646', and leadership skills 'mean = 1.485, standard deviation = 0.604'.

The highest level of very needed skills that are required in AJ&K organization are problem solving 228(59.2) then team working 223, leadership skills 219, decision making 217, information technology 215 and communication skills 215, and lowest level of entrepreneurial skill that is 111(28.8). Highest level of needed skills is entrepreneurial skills (217, 56.4%) and lowest level of needed skills is numeracy skill 134 (34.8). Less needed skills that were required high was entrepreneurial skill 50(13.0) and lowest level was analytical and leadership skills 19(4.9). On the other side not needed skill's high level was entrepreneurial skill 7(1.8) and lowest level was 1(.3) of problem solving skills, leadership skills and technical skills. Overall result shows that employers demanded all listed skills like analytical, entrepreneurial, critical thinking, communication, decision-making, information technology, interpersonal, problem-solving, English proficiency & literacy, ICT, team working, leadership and self-directed learning

skills. For the skills mean values is high revealing that those skills are needed critically. The weighted average (ascending order) of 1.58 shows that the labor market is not perfect, excellent or very good score, but 1.58 weighted averages is consider good score. Low weighted average shows high demand in the labor markets.

4.5 ANALYSIS FOR SKILL SUPPLY

To find out the skills supply the researcher collected data from the different organization of all the districts of Azad Jammu & Kashmir. Skills play important role in every field of life and we need different skills in different institutions. Below table explained that what are the skills are produced in Azad Jammu and Kashmir’s institutions.

Table 4.7: Level of Skills Displayed by AJ&K University Graduates in the Work Place

Sr. No.	Skills	Very good(weight =1)	Good(weigh t=2)	Average(wei ght=3)	Poor(weight =4)	Mean	SD
1	Analytical	31(8.1)	91(23.6)	221(57.4)	42(10.9)	2.717	.765
2	Entrepreneurial	21(5.5)	65(16.9)	242(62.9)	57(14.8)	2.870	.720
3	Critical Thinking	18(4.7)	67(17.4)	232(60.3)	68(17.7)	2.909	.728
4	Communication	28(7.3)	95(24.7)	198(51.4)	64(16.6)	2.774	.809
5	Decision Making	41(10.6)	76(19.7)	194(50.4)	74(19.2)	2.781	.877
6	Information Tech.	22(5.7)	66(17.1)	217(56.4)	80(20.8)	2.922	.776
7	Interpersonal	16(4.2)	108(28.1)	201(52.2)	60(15.6)	2.792	.748
8	Problem Solving	29(7.5)	113(29.4)	192(49.9)	51(13.2)	2.688	.794
9	Self-Directed Learning	22(5.7)	111(28.8)	188(48.8)	64(16.6)	2.763	.793
10	Technical	16(4.2)	91(23.6)	204(53.0)	74(19.2)	2.872	.761
11	Numeracy	19(4.9)	94(24.4)	215(55.8)	57(14.8)	2.805	.743
12	English proficiency &	13(3.4)	86(22.4)	217(56.4)	69(17.9)	2.888	.725

	literacy						
13	ICT skills	14(3.6)	73(19.0)	205(53.2)	93(24.2)	2.979	.760
14	Team working	34(8.8)	62(16.1)	195(50.6)	94(24.4)	2.906	.866
15	Leadership	33(8.6)	69(17.9)	177(46.0)	106(27.5)	2.924	.890
Weighted average =2.83		percentage in parentheses					

Author's Own Calculation

Above table shows that all the skills were significantly low in the labor market in Azad Jammu and Kashmir. For analytical 'mean 2.717, standard deviation = 0.765', entrepreneurial 'mean = 2.870, standard deviation = 0.720', critical thinking 'mean = 2.909, standard deviation = 0.728), communication skills 'mean = 2.774, standard deviation = 0.80903', information technology 'mean = 2.922, standard deviation = 0.776', interpersonal 'mean = 2.792, standard deviation = 0.774', problem-solving 'mean = 2.688, standard deviation = 0.794', decision making 'mean = 2.781, and standard deviation = 0.877'. Other skills included such as self-directed learning 'mean = 2.763, standard deviation = 0.793', technical skills 'mean = 2.872, standard deviation = 0.761', numeracy 'mean = 2.805, standard deviation = 0.761', English proficiency and literacy 'mean=2.888, standard deviation=0.725', ICT 'mean=2.979, standard deviation=0.760', team working 'mean=2.906, standard deviation=0.866', leadership 'mean=2.906, standard deviation=0.890'. Overall finding suggests that the high weighted average shows poor level of performance of recent university graduates in the different organizations. The highest level of very good skills in organization of AJ&K was decision making that is 41(10.6) and lowest level was 13(3.4) of English proficiency and literacy skills. Good skill's high level was 113 (29.4) of problem solving and lowest level was 62(16.1) of team working. On the other-side average skills in organization of AJ&K, the highest level was entrepreneurial skill 242(62.9) and lowest level was 177 (46.0) of leadership skill. Poor skill's high level was 106(27.5) of leadership skills and lowest level was 42(10.9) of analytical skill. The weighted average of skills 2.83 that is significantly high. High weighted average shows less supply performance in universities and it (weighted average) is in ascending order.

4.6 ANALYSIS FOR SKILL MISMATCH

The main purpose of this study is to find out the skill mismatch among university graduates in labor market in AJ&K. There are fifteen skills included in below list such as analytical, critical thinking, communication information technology, interpersonal, problem-solving, self-directed, entrepreneurial, numeracy skills, decision making, English proficiency, and leadership skills, team working and ICT skills.

All skills are very needed in all organization in Azad Jammu and Kashmir and there is significant difference between skill demanded and skill supplied. Below table explained that to what extent is the mismatch between the skill acquired by university graduates and the demands of their jobs?

Table 4.8 The extent of mismatch between the skills available and required

S/N	Skills	Mean skill demand (SD)	Mean skill supply (SS)	Supply relative to demand (ASS) = $SS/4 \times SD$	Extent of mismatch = (SD - ASS)	Extent of mismatch = $(SD - ASS)/SD \times 100$ (%)	Rank
1	Analytical	1.620	2.717	1.100	0.519	32.075	2
2	Entrepreneurial	1.877	2.8701	1.347	0.530	28.247	8
3	Critical Thinking	1.698	2.9091	1.235	0.463	27.272	12
4	Communication	1.522	2.7740	1.055	0.466	30.65	4
5	Decision Making	1.529	2.7818	1.063	0.465	30.455	5
6	Information Tech.	1.514	2.9221	1.106	0.408	26.947	13
7	Interpersonal	1.558	2.7922	1.087	0.470	30.195	6
8	Problem Solving	1.464	2.6883	0.984	0.480	32.792	1
9	Self-Directed Learning	1.589	2.7636	1.098	0.491	30.91	3

10	Technical	1.566	2.8727	1.124	0.441	28.182	9
11	Numeracy	1.732	2.8052	1.215	0.517	29.87	7
12	English proficiency & literacy	1.576	2.8883	1.138	0.438	27.792	10
13	ICT skills	1.589	2.9792	1.183	0.405	25.52	15
14	Team working	1.498	2.9065	1.088	0.409	27.337	11
15	Leadership	1.485	2.9247	1.086	0.399	26.882	14
Total		extent of mismatch=33.13					

Author's Own Calculation

From above table, the extent of the mismatch of skills is high. The problem solving (32.79%), Analytical skills (32.07%), Self-Directed Learning (30.91%), Communication skills (30.65%), Decision Making (30.45%), Interpersonal skills (30.19%), Numeracy (28.18%), Entrepreneurial skills (28.24%), Technical skills (28.18%), English proficiency & literacy (27.79%), Team working skills (27.33%), Critical Thinking (27.27%), Information Technology (26.94%), Leadership skills (26.88%), ICT skills (25.52%) and 33.13% is the extend of mismatch. There are many skills that have weaknesses in the supply are entrepreneurial skills, IT, interpersonal relationships, and decision-making, self-directed and critical thinking skills, technical, communication, and numeracy, and analytical skills.

Table 4.9 Relationship between the Supply of Skills by University Graduates and Skills Demand of the Labor Market

Model	Un-standardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std.error	Beta		
(Constant)	3.078	.117		26.286	.000
mean_Skills_demand	-.150	.072	-.106	-2.083	.038
Adjusted R² = 0.009; F = 4.340; Sig.038					

Author's Own Calculation

Above table showed that there was a significant difference between the demand for skills in the labor market and the supply of skills, $R^2 = 0.009$, $F\text{-value} = 4.340$, $P < 0.05$. The result showed that significant negative relationship between skills demand and supply. From above Table, $Beta = -0.150$, $t(484) = -2.083$, $P = 0.000$. The value of beta showed that negative relationship between skill demanded and supply. This relationship indicated that when the demand for skills in the labor market increases, the quality of skills of university graduates decreases significantly.

Table 4.10 Mean differences in the demanded and available of each of the Skills

S/N	Skills	Skill required		Skills available		Mean difference	SE	t-values	Sig
		Mean	SD	Mean	SD				
1	Analytical	1.620	.630	2.717	.765	-1.090	.050	-21.466	.000
2	Entrepreneurial	1.877	.690	2.8701	.720	-.992	.048	-20.540	.000
3	Critical Thinking	1.698	.686	2.9091	.728	-1.210	.048	-24.737	.000
4	Communication	1.522	.669	2.7740	.809	-1.251	.055	-22.529	.000
5	Decision Making	1.529	.672	2.7818	.877	-1.251	.05795	-21.602	.000
6	Information Tech.	1.514	.645	2.922	.776	-1.407	.051	-27.099	.000
7	Interpersonal	1.558	.631	2.792	.748	-1.233	.050	-24.305	.000
8	Problem Solving	1.464	.607	2.688	.794	-1.223	.0523	-23.380	.000
9	Self-Directed Learning	1.589	.679	2.763	.793	-1.174	.058	-20.161	.000
10	Technical	1.566	.621	2.872	.761	-1.306	.050	-25.775	.000
11	Numeracy	1.732	.679	2.805	.743	-1.072	.05368	-19.985	.000
12	English proficiency & literacy	1.576	.641	2.888	.725	-1.311	.0504	-25.989	.000
13	ICT skills	1.589	.701	2.979	.760	-1.389	.053	-25.962	.000
14	Team working	1.498	.646	2.906	.866	-1.407	.055	-25.157	.000
15	Leadership	1.485	.604	2.924	.890	-1.438	.055	-25.830	.000

Author's Own Calculation

In this analysis low mean value of required skill shows high demand of that particular skill where high mean value reflects low demand of that skill. Similarly high mean value of skill supply shows low availability of that skill and low mean value reflects high availability of that skill. There is a huge difference between required and available skills that's why it's negatively and strongly significantly effect because in organization available analytical skills are less than required skills.

Analytical skills (mean difference=-1.090, standard error=.0508, t-value=V and significance level is .000),entrepreneurial skills (mean difference=-.9922, standard error=.0483, t-value=-20.540 , and significance level=.000),critical thinking (mean difference=-1.210, standard error=.048, t-value=-24.737, and significance level=.000), communication (mean difference= -1.251 , standard error= .055 t-value= -22.529, and significance level=.000),decision-making (mean difference=-1.25195 , standard error=.057, t-value= -21.602, and significance level=.000.) ,information technology ,interpersonal (mean difference= -1.407, standard error= .051,t-value= -27.099, and significance level=.000),problem-solving (mean difference=-1.223, standard error=.0523, t-value=-23.380 , and significance level=.000),self-directed learning (mean difference=-1.17403, standard error=.05823 t-value=-20.161, and significance level=.000).technical skills (mean difference=-1.306 , standard error=.050 t-value=-25.775 , and significance level=.000) ,numeracy (mean difference=-1.072 , standard error=.053 t-value=-19.985 , and significance level=.000), team-working skills (mean difference= -1.40779, standard error=.0559, t-value= -25.157, and significance level=.000) ,English proficiency & literacy skills (mean difference=-1.311, standard error=.0504, t-value=-25.989 , and significance level=.000),ICT skills (mean difference=-1.389, standard error=.053, t-value=-25.962 , and significance level=.000),leadership skills (mean difference=-1.438 , standard error=.0557, t-value=-25.830, and significance level=.000).

Based on these results, hypothesis 1 is rejected. The value of beta showed that negative relationship between skill demanded and supply. This relationship indicated that when demand for skills increased in the labor market then the university graduates' quality of skills supplied decreased significantly.

4.7 DETERMINENTS OF INCOME DISTRIBUTION IN DIFFERENT SKILLED PERSONS

To examine the impact of factors that affect the skill mismatch a simple regression analysis was employed. Here income is a dependent variable and employee’s highest degree, specialization, professional training, experience, subject area are independent variables. Regression analysis for skill mismatch is listed below. To estimate the parameters their standard errors, significance of the co-efficient, t- value, the linear regression model is run over the explanatory variables by using SPSS.

Table 4.11 Coefficient of regression analysis

Model	Un-standardized coefficient		T	Sig.
	B	Std. Error		
(Constant)	9.222	.401	22.979	.000
Employer’s highest degree	.083	.024	3.420	.001
Specialization	.110	.071	1.557	.120
Professional training	.008	.003	3.115	.002
Experience	.003	.000	7.140	.000
Subject area	-.070	.020	-3.573	.000
<p>Adjusted r square= .177 F value=17.489 p value =.000</p>				

Author’s Own Calculation

The study used the techniques of OLS to find the results. From the above table Adjusted R Square tells us 17% of variation is explained by these six factors, such as Subject area, Employer’s highest degree, experience, actual professional training (in month)?, Specialization (if any)? Adjusted R Square explains the goodness of fit. Model is appropriate as goodness of fit is higher. 17% of Adjusted R Square indicates that this model is appropriate. Over all regression model is significant with F value of 17.489 and P value = .000 are highly significant at 5% level of significant.

Analysis revealed that there was positive and significant (P -value=0.001) relationship between monthly income and Employer's highest degree. It means that if education increases then income also increases by .083. As expected higher skills levels have higher wages and a low skill level has lower wages. Finding shows that well-educated people tend to make financial decisions that help them in every field of life.

The aggregate impact of specialization on economy were massive and there was insignificant and positive relationship between monthly income and specialization (p = .120). Because citizens who were specialize in a field develop new techniques that lead to huge increase in productivity that was .110. Researcher's perception after analyzing the data mostly people prefer to specialize but some or not and monthly income and specialization have a positive relationship because when specialization more income also more.

When training in any field increase then income also increase, due to training anyone learn more new things and work good that's why income increased by .008. And there was positive and significant relationship between income and training and p - value was .002 that is strongly significant. Relationship between income and experience was positive and significant with p -value .000. Because when experience increase then income also increase by .003, due to job anyone can earn more and income increase.

There was negative and strongly significant (p =.000) relationship between income and subject area. People who were related to the field of medical or natural sciences earn more but those people who were related to arts didn't earn more (-.070) that's why negative relationship between subject area and income. Employees in some field or sectors may receive gratuities, bonus, payment or stock option and some fields didn't

4.8 MEAN DIFFERENCE BETWEEN SUBJECT AREA

One-way ANOVA shows the comparison between the means of two or more independent groups to find out whether that associated population means are significantly different. Here the researcher found mean difference between subject area and job.

Table 4.12 Minimum experience required for next grade

	N	Mean	Std.error	Post Hoc test	Mean difference
Medical	42	22.71	4.38	LCD Medical	–
Engineering	12	6.00	2.95		16.71429 [*]
social sciences	134	9.88	1.194		12.83369 [*]
pure sciences	23	8.39	2.73		14.32298 [*]
Natural sciences	60	7.16	1.43		15.54762 [*]
Arts and linguistic	87	4.55	.90		18.16256 [*]
Commerce	27	13.40	2.62		9.30688 [*]
Total	385	9.69	.78		
Sig. .000					

Author’s own calculation

According to the table there were 42 respondents belong to the field of medical, 12 in engineering, 134 social sciences, 23 in pure sciences, 60 in natural sciences, 87 in arts and linguistic and 27 persons in the field of commerce. On the average 23 months experience required for the next grade in the field of medical, 6 months for engineering, 10 months for social sciences, 8 months required for pure sciences, 7 months needed for natural sciences, 5 months for arts and linguistic, and 13 months experiences required in commerce for the next grade. Overall perception shows that in the field of medical more experience required for the next grade as compared to other subjects. Standard error showed that how much fluctuation from the average value. According to the table there was 4 months variation because on the average 22 months experience required for the next grade in medical. 2 months variation in engineering, 1 in social sciences, 3 pure sciences, 1 in natural sciences, also 1 in arts & linguistic and 3 months variation in the field of commerce. Results suggest that, variation in the field of medical was more as compared to other subjects. The table shows the output of ANOVA analysis and whether there was a statistically significant difference between two group means. The significance value

was .000 ($p=.000$) that is below 0.05, and, therefore there is a statistically difference between both groups. So H_0 is rejected. Post Hoc test shows that on the average there is 16 months difference between medical and engineering (compare medical with all other subjects), with social sciences 12 months, pure sciences 14, natural sciences 15, arts 18 and commerce 9 months difference.

The present section has demonstrated the demographic status of respondents, reliability, districts of AJ&K, age, income, education of employee, designation and subject area of employee, social and economic conditions in different areas, analysis for skill demand and supply, analysis for skill mismatch, determinants of income distribution in different skilled person, mean difference between different subject area and independent variables. Overall finding suggests that there is a significant difference between demand for & supply of all the skills. There is a huge difference between required and available skills, so there is a negatively and strongly significant effect.

5. CONCLUSION

The study investigated the skill mismatch among university graduates and labor market in AJ&K and examined the factors that affect the skill mismatch. For this purpose sample size of 385 respondents was selected, representing 61 from Poonch, Bagh 86, Haveli 21, Sudhnati 38, Muzaffarabad 35, Bhimber 28, Neelam Valley 18, Hattian Bala 49, Mirpur 26, and from Kotli was 23. To estimate the parameters, their standard errors, significant of the coefficient, t-values, and the liner regression is run over the explanatory variables by using SPSS. In conclusion, it is determined that there is a significant disparity exists between the demand and supply of various skills indicating a significant difference between the required and available skill sets. This incongruence has resulted in a notably negative and strongly significant impact. There is positive and strongly significant relationship among income and other variables like employees' highest degree, specialization, actual professional training and experience. On the other-hand negative and significant relationship between income and subject area. Overall finding indicate a noteworthy significant disparity between demand and supply of all the skills. In numerous fields,

there is dozens of people who are available for a single job that create unemployment and notably advance skilled people are available in social sciences. There is intense competition in medical and to some extent in social sciences. According to the survey mostly people are dissatisfied with their official grades and corresponding salaries. Here the researcher concluded comparison between subject area and time period of different opinions as, as on the average in the field of medical more experience required for the next grade as compared to other subjects. On the average in arts and linguistic, more months ago people were qualified for the current job and more time they were unemployed. On the other hand people who belongs to the engineering, worked at lower grade more-than as compared to other subjects.

6- DELIMITATIONS OF THE STUDY

Present study can be conducted overall sectors like agriculture sectors and more other sectors in AJ&K but here the researcher discussed limited sectors (health, education, manufacturing, telecommunication, banking sectors) due to short time and limited recourses. Random sampling technique can also be used that can give better result but the researcher used multistage sampling technique because it's easy for her. Vocational and more other institutions can also be taken but this study delimited to educational institutions of AJ&K. For further study anyone can take Pakistan or other countries to find out skill mismatch and also take different other sectors like agriculture, businesses etc.

7- RECOMMENDATIONS OF THE STUDY

The researchers put forward the following suggestions:

1. According to the frequency distribution, results show that there is a huge difference between qualification and designation. So government should formulate the polices aimed at increase in employment opportunities and ensures that and individual secure a job according to his abilities and merits because skilled people tend to work better than those lacking necessary skills.
2. Results that are based on the social and economic condition of different subject area, we should need to choose a degree which is equipped for a specific career. In today's context, selecting a subject with a broad scope can reduce job mismatch.

3. According to the analysis for skill demanded and supply's results, employers are required skills should be introduced as practical courses related to the trip. It should be made compulsory in all Azad Jammu and Kashmir universities and AJ&K should defiantly work for employment in the labor market. This will improve the economic prospects of university graduates.
4. We should stay up to date about jobs opportunities because mostly people (who are living in those areas where network issues) are unconscious regard jobs. Mostly people think that after completing the degree they will apply for a job; this is also a big reason because when their degrees are complete then job opportunities and scope of this degree is decrease.
5. People should start own businesses because self-employed is one of the best ways to achieve bigger job satisfaction. We should use online courses. Online courses can help us pick up new skills our existing capabilities to put them into a freelancing career.
6. Government should make training institutions where people can teach different skills, so after training they get jobs easily and unemployment decrease.

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