

Associate Degree: A Case of Abbottabad Region in Pakistan

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Abstract

The city of Abbottabad faces a slow supply of qualified IT specialists at a time of increased demand for IT services. Despite many fold increase in IT graduates in the city, demand is still high. This study identifies the factors influencing high demand and low supply and expands the current evidence base that can be used to inform efforts to promote IT education. Higher Education Commission (HEC) has launched a fast track 2-year Associate Degree Program (ADP) countrywide to ensure the maximum entrance of university graduates in short term. That would in a longer run increase the demand of market oriented candidates inside the country. Our survey is focused to Abbottabad city and its adjoining areas with initiation of ADP in IT related disciplines. Student demographic and socioeconomic characteristics are the most powerful predictors of on-time graduation. To fairly judge program performance, graduation rates must be considered in comparison to what should be expected given the student body's demographic and socioeconomic profile. Associate Degree Program in IT graduates are more likely to practice in long-term for Computer support technician, Engineering technician, Printing specialist, Computer operator, School teacher, Graphic designer, Key punch/Data entry operator, Network support technician, Inventory record, Software developer, Troubleshooting specialist, Network Technician, Network Administrator, Network Analyst, Network Cabling Specialist, Network Installer, Network Support Specialist, Network Troubleshooter, Office Systems Support Specialist, PC Technician, Software Support Specialist, Software Tester, Software Trainer, Systems Administrator, Internet Manager and Internet Support Specialist. A person with much focused degree will be having greater chances of employment than non-specialists. Also a degree that can be utilized in as many departments as in the market is providing greater flexibility of accommodation.

Keywords: Associate degree, graduation, careers, higher education, credits

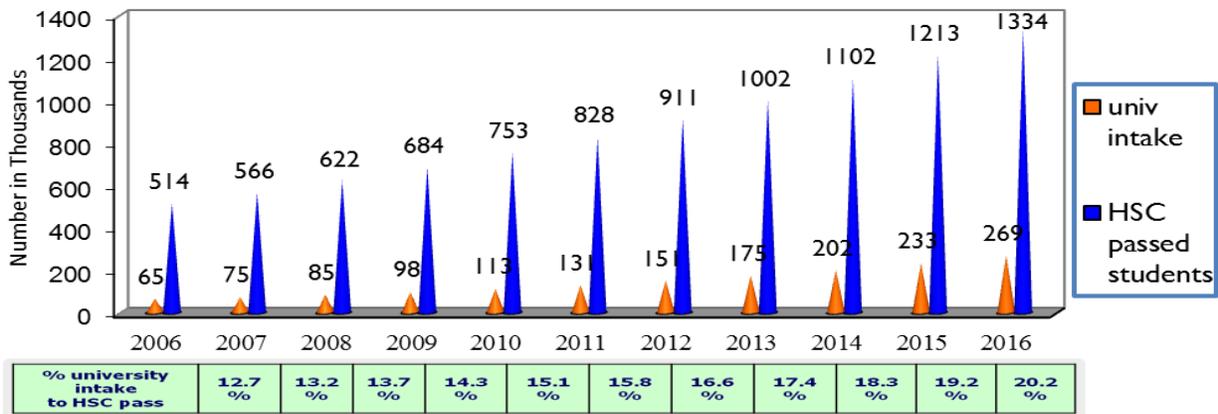
1. Introduction

Higher Education (HE) has the basic responsibility of providing direction to the society. The goals of the HE are to build up the people physically, mentally and spiritually. It promotes the economic, social, political and cultural life of the nation. The Education of Pakistan is alienated into five levels: Primary (grades 1 – 5), Middle (grades 6 – 8), Secondary (grades 9 – 10), leading to the secondary school certificate; Intermediate (grades eleven and twelve), leading to a Higher Secondary School Certificate; and University programs leading to graduate and advanced degrees. In Pakistan, higher education refers to education above grade 12, which generally corresponds to the age bracket of 17 to 23 years. Enrollment of students pursuing HE/tertiary education climbed sharply over the past 37 years, growing five-fold from 28.6 million in 1970 to 152.5 million in 2007. This translated into an average annual increase of 4.6%, with the average number of tertiary students doubling every 15 years. In past, more than

three decades, student numbers have risen by an average of 8.6% each year. Between 2000 and 2005, expansion peaked with an annual growth rate reaching 10%. However; the careful analysis of the data shows that the expansion has been particularly intense since 2000, with 51.7 million new tertiary students enrolled around the world in just seven years. In more than 60 years of Pakistan, the advance indicators are not showing positive results. Rate of participation/induction at higher education is about five percent (5%) of age group (17-23) and this is 16.2 percent as world average of this age group. Now this situation is quiet alarming as most of the mainstream after 12 years schooling can't become a part of HE due to socio economic factors as discussed. In order to bridge this huge gap that exists between passed HSC students and enrolled HE students, a series of associate degree programs are being initiated by the higher Education Institutes (HEI's) in various fields like IT, business management and arts. Recent trends show that people inclination towards IT education is far more than any other discipline. This is due to on-spot market jobs, high salaries and variety of careers.

According to the Education Census of Pakistan, 2005 it is reported that there are more than 2000 colleges in the country out of which more than 1100 are in the public sector and about 1000 are in the private sector. The report also reveals that there are 132 Universities in Pakistan. It includes 72 general Universities, other technical/ professional Universities of both public and private sector. But the proportion of enrollment in institutes of higher education in Pakistan is far from being satisfactory. Only 3.5 percent of the total enrolled students go to colleges, while the percentage for general universities is 0.5 and for professional institutes is 1.08. Pakistan is lacking an reasonable education system. Educational indicators remain alarming, which include low public spending, low literacy and low enrollment levels, high dropout and lack of trainings for professional development of students engaged in education sector.” According to ‘UNDP Millennium development goals Pakistan’ educational polices are not properly implemented (“Commitment of top winners on education”, 2008).

Graph 1: University intake and HSC passed students projections



Source: Higher Education Commission (HEC), Pakistan

Figure 1: University intake and HSSC passed out students

It can be seen that only 16.6 percent students till date after getting passed from Secondary schools/colleges contribute to Higher Education in Pakistan. This is less than 5.5% of the total passed students, and compares unfavorably with countries such as India standing at 11%, Malaysia at 32%, China at 22.1%, UK at 59% and USA at 82%. The situation is even worst when it comes to compare with Bangladesh which is standing at 7%. See Graph: 2 for details. It's very drastic to see that only few percent of average youth population goes to higher studies and rest of them due to various reasons jump off the stream and their services remains unacknowledged. If this situation prevails then only 20.2 percent of them would be able to sit at HEI's by the end of year 2016 as shown above. This high dropout ratio needs

channelized and focused efforts so as to make sure of maximum participation as a contributing factor in higher education. Hence, in order to achieve them, one really needs to include attraction by designing some low cost and immediate career based ADP's of higher learning that directly influence their interest.

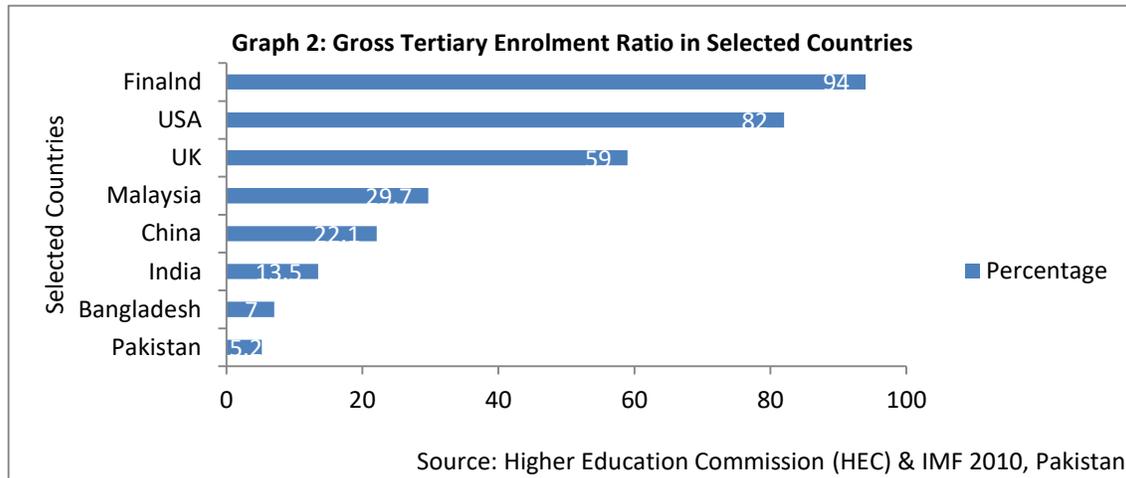


Figure 2: Tertiary enrollment in selected countries

Over the past few years, Pakistan has made rapid improvement in IT sector which has further strengthen its roots in every department either public or private. Employers usually demand those employees who have developed good computer skills and can better run the IT infrastructure but the demand and supply ratio is not significant. The time spent on obtaining Bachelor's degree usually requires four years which actually creates this gap. Similarly, in our study which is conducted only in the city of Abbottabad and adjoining areas show that the city faces a slow supply of qualified IT specialists at a time of increased demand for IT services. Despite many fold increase in IT graduates in the city, demand is still high. This study identifies the factors influencing high demand and low supply and expands the current evidence base that can be used to promote IT education. Our survey is focused to Abbottabad city and its adjoining areas with initiation of ADP in IT related disciplines. It shows that students with associate degrees are more likely to find jobs. According to the survey, advantages in the job market are even greater for those just starting their careers in IT. For others, the best part about earning an associate degree is the opportunity to enter interesting professions. Survey has shown that the hallmark of associate degrees is flexibility, both in what to study and how to study it. An associate degree in IT related market oriented subjects in Abbottabad and its adjoining areas can be useful in the following occupations including Computer support technician, Printing specialist, Computer operator, School teacher, Graphic designer, Key punch/Data entry operator, Network support technician, Inventory record, Troubleshooting specialist, Network Cabling Specialist, PC Technician and Web Technician.

2. Literature Review

For timely graduation, it is observed that student demographic and country's socioeconomic features are the most powerful predictors. Furthermore, student demographic and socioeconomic regimes play an important role in determining their decisions and career development outcomes. Career development is an area of study around the career interest, educational choices and decisions of individuals. The Social Cognitive Career Theory (SCCT) provides a platform for decision making, thereby explaining the impact of educational interests combined with performance within the areas have on the career related

preferences of an individual (Brown, 1999). Over the years, the demand of technical workers in many areas arises due to the time gap between demand and supply ratio of graduates. Also, employers demand a specific job that in turn requires more explicit expertise in the field. This has greatly geared the immediate market oriented two-year successful Associate Degree Program's (ADP) in many fields like IT. Especially students in developing countries are more likely to be employed immediately and most often many jobs demand skilled diploma holders. This also creates a dilemma of insufficient induction at university level due to long 4 years professional degrees that also requires high entry and fee structures. That's why students prefer two years technical degree over 4 year's bachelors.

In 2002, study found that if admission policies are reduced to minimum standards with no prerequisites then enrolled students have the higher probability of timely graduation as compared to four years degree. This supports that students' studying natural science subjects like computer science, physics, chemistry and biology are more likely to graduate timely than those who require prerequisites. The statistics from US Bureau of Labor and Statistics (BLS) predicted that between 2000 and 2010, the highest number of jobs would be taken over by the associate degree holders in technical fields. According to the National Center for Education Statistics (NCES) 43% of all U.S. undergraduates are enrolled in a two year college (Boggs, 2010). (Hemmelman, 2010) in his work analyzed the Projections of Jobs and Education Requirements through the year 2018 also reports that America will fall short of workers with associate degrees by three million or more if competencies are not properly developed.

Two year associate programs have their roots way back to 1800 where 2 year education was first developed to provide the education very similar to that being offered today. Most variations have begun since its inception. Specifically, the technical institutes are focusing their education towards technical engineering fields (Blocker, Plummer, Richardson, 1965). It can be argued that for most specialized four year programs, an analogous and most often less expensive two-year technical program can be found with immediate careers in mind (Blocker, Plummer, Richardson, 1965). This provided a base to some universities across the world to initiate an exclusive 2 year foundation degree programs also termed as ADP. Keeping in view the success of these programs, Purdue University started the first ever associate degree in mental health in 1965 to overcome the mental health problems like lack of coordination between the units, insufficient attention to the patient and lack of influence in the system. This helped in alleviating some of the traditional problems that exists in mental health hospitals by providing sufficient skilled human resource in the areas on a fast track and thus producing more than 17000 graduates by the end of 1976. [1]. Since then ADP's are successfully started widely in more than 140 other fields there.

A study was carried out in 2004, in which North Carolina Institute of Medicine (NCIM) showed acute shortage of nurses due to insufficient induction for the BS nursing program [2]. To overcome this shortage on immediate basis, efforts started for induction of students with less entry requirements on fast track. A two year much focused ADP in nursing was started in order to attract many students with immediate employment in mind. These efforts greatly resulted in increase of enrollment up to 28.6% from 2003-2006 which ultimately touches 58% in 2010. Likewise, In late 2007, Sheps Center conducted a study of Associate Degree Nursing (ADN) program attrition and its causes in which they summarize the findings from the study and identifies the student- and program-level characteristics associated with more and less successful associate degree nursing (ADN) programs [3].

Moreover, David Dowling [4] in his study found that there was a vast and surprising growth in the commencing enrolments in the distance education offer of the Associate Degree of Engineering program during the period 2006-2008 having total student increasing from 115 in 2005, to 337 in 2008. The expansion occurred in the distance education offer of the programs and in 2009 more than 92% of the students in the program were enrolled in this study style. Many students are stretched throughout Australia, and in some overseas countries, the majority lives and works in Queensland (77%) and New South Wales (14%). King (2008, p13) focuses some other aspect and highlights the differences between the two Australian awards that intend to get ready graduates for careers as Engineering Technicians the Advanced Diploma offered by institutions in the Vocational Education and Training (VET) sector, and the Associate Degree, a higher education Degree which has until recently only been offered by

universities, but is has now been attracted by some of the larger VET institutions due to its importance [5].

Statistics shows that student enrolling at a two year college may be inclined to focus due to gender, race, ethnicity, age, family background, economic situation and immediate career goals. Besides, increase average wages and flexibility in terms of advancement towards higher education and credit transfer agreements also play a key role. Carrie Schmidt in his thesis work made analysis of the accounting associate degree and its affect show that valuable evidence indicating many students with an associate degree in accounting averaged roughly 20 percent higher wages in 2001 than someone with only a high school education, and those with the advanced degree or certificate see about a 33 percent increase in wages over those with the associate degree (Crosby, 2003). Verbalization conformity recognizes courses taken at the associate degree level as transfer credits towards the bachelor degree providing students significant cost and time saving advantages (Crosby, 2003). Today, most states within the United States have transfer agreements in place with an average of 12% of all students graduating from a four year institution taking advantage of the agreements (Callen, 2009). This is called “two plus two cooperation programs”. According to the BLS, jobs in the bookkeeping, accounting and auditing clerk areas are predicted to increase by 264,000 or 12.5 percent by 2016 (Walker, 2009). 80 occupations typically require less than a bachelor’s degree to enter and had median annual wages of over \$50,000 in May 2010. Most positions in near future will require a minimum of a high school diploma with many requiring an associate degree. Furthermore, jobs for computer experts, accountants, auditors and other high wage related areas, requiring an advanced degree or certification, are projected to increase by 226,000 or 17.7 percent between 2006 and 2016 (Walker, 2009). In the U.K., over 2000 foundation degrees were delivered to over 38,000 students during 2007 (McCormack, 2007). Wilson et al. (2005) in his findings of the systems in the U.S., says that students have various associate degree options including those offered by community colleges, junior colleges, and universities. The impact of these associate degrees paying attention large associates of students and 11.3 million had graduated by 2000. A main advantage of these degree programs is that of societal insertion (Department for Education and Skills, 2003; Wilson et al., 2005).

In Europe almost all universities are offering Associate Degree programs keeping in view their marketability and affordability. People at Europe usually try to have 2 years education as AD and if they think they can continue further they simply transfer their courses to Bachelor’s level. In fact, AD programs are transferable everywhere to BS programs. The choice of programs can be natural sciences, technical, mathematics or others providing wide range of selection and transferability. Asian countries like China, Russia, Saudi Arabia, Oman, India, Bangladesh, Nepal etc.. have variety of AD degrees in many disciplines providing excellent career opportunities. Pakistan has recently started AD in much market oriented need areas like computer science, management science and arts due to acute shortage of graduates in these disciplines. The opportunity is there and a big challenge. The opportunity is to prepare a well new type of task force meeting the need for a high quality, focused, low cost higher education qualification. The challenge is to produce it through the new infrastructure based on existing one, developing effective work-based learning and integration with the existing qualification system. Students pursuing IT education as per demand and supply are few whereas everyday IT infrastructure is getting developed requiring much focused and technical based jobs in this sector. This gap is getting wider and wider because four years graduation degree produces only few graduates in IT which also involves huge time and some good cost. A short duration Associate degree can be a good solution to minimize this gap in longer run.

3. Methodology

3.1 Sample

For students, we selected a target group of individuals belongs to 12 different socio-economic backgrounds. 6 leading advanced colleges in Abbottabad, Pakistan, and 6 potentially low developed colleges of Abbottabad are invited to take part in the study. Each college was asked to provide some male and female students of K-12. A total of 120 sample students were selected. Similarly, a target group of 120 employers are identified from diverse most wanted areas such as government offices, private companies, banks, schools, hospitals and some other organizations.

3.2 Instrument

In-order to get opinion of students and their employers for the ADP in various disciplines; like IT Management, Graphic Design, Network Management and Web Design/Web Management, a two tier strategy is developed. At the first place, survey of student’s interest is made and in the second place perspective employer’s interest is collected. For both tiers, two separate questionnaire proforma’s are designed. Data is then collected and analyzed through statistical process to find out the interest of both students and employers in IT related programs after providing them awareness of ADP’s.

3.3 Survey on Students’ Interest

A preliminary analysis of the 120 responses from various college students found that 60% of them have a career goal to become a Professional immediately and further see the Associate Degree as a stepping stone to the Bachelor degree. This result supports that students in Associate Degree programs will pursue careers as IT Technicians/professionals. An analysis of the survey data is made that discusses the need for actual and effective articulation (upgrade) pathways to encourage students in the colleges to undertake ADP studies and achieve their career goals. If properly employed, the benefits will add to students, universities, employers, and the IT profession. Questionnaire was developed to make a survey at large that aimed to answer the following major questions (after giving presentations on ADP):

1. Why students are more interested to study the Associate Degree program rather than the 2-Year BA/BSc Pass program?
2. Are the students interested to transfer their degree from ADP to BS program?
3. Why students choose to study the Associate Degree of IT as compared to other Associate Degree program?
4. What are the career aspirations, employment goals and demographic of the students when they commenced their program?

A total of 26 questions were asked from students of various colleges of Abbottabad and its adjoining areas to answer their interest in Yes/No format. The format of the questionnaire was designed in the following way:

1. 6 questions explored student’s interest in Associate Degree Program as compared to BA/BSc Pass Degree.
2. 12 questions explored the student’s career aspirations, employment goals and other demographic factors.
3. 7 questions identified student’s interest in IT related ADP’s disciplines.
4. 1 question discovered the future study plans of the students enrolled in the Associate Degree program to transfer in BS program.

Table 1 Questionnaire results in quantitative terms from students

Results of Questionnaire Survey in Quantitative Terms with Sample Population of 120 Number from different Institutes of Abbottabad & its adjoining Areas (Proforma-Annex-I)				
Qno	Questions Statements	Yes	No	Total
Q1	What is the reason for studying F.A/F.SC/ICS/I.Com/DAE? To become Professional with good job say Yes, otherwise say No	120	0	120
Q2	Are you Full time student or doing some other business beside study?	59	61	120
Q3	What is the reason of doing some other business? Low income say Yes, otherwise say No	90	30	120

Q4	Do you want to be employed immediately?	103	17	120
Q5	Are there sufficient resources at your institute for studies at Bachelor level i.e. appropriate Labs, library, class room environment, quality teaching etc for BA/BSc?	50	70	120
Q6	Do you want to get admission in university after Intermediate?	114	6	120
Q7	Suppose if you are not admitted in universities/colleges as per your will after intermediate, would you like to avail either: Say Yes with AD, No with BA/BSc	117	3	120
Q8	Do you prefer: Associate Degree with Yes, BA/BSc Pass with No	97	23	120
Q9	Do you have enough resources to pay for your 4-year degree program at university?	30	90	120
Q10	Do you like the Degree that provides you Market oriented education in your nearest access at affordable cost?	115	5	120
Q11	If you are given an opportunity for good salary job after 14 years of education, would you like to avail it or continue your education?	96	24	120
Q12	Would you prefer a Skilled/much focused market based Degree in short time with handsome salary?	115	5	120
Q13	Please specify the jobs in which you are interested? IT related with Yes, Others No	100	20	120
Q14	Do you need an Associate degree only?	113	7	120
Q15	Do you want an Associate Degree from reputable university?	104	16	120
Q16	Do you need an Associate Degree to get a bachelor's degree (BS) 4 Years afterward?	114	6	120
Q17	Do you recommend Associate Degree Program for others?	118	2	120
Q18	Which Degree is most attractive and market based? BA/BSc (PASS) with No, Associate Degree with Yes	116	4	120
Q19	Would you avail an Associate Degree Program that would provide you quality education?	117	3	120
Q20	Do you have computer course as a subject at your college?	52	68	120
Q21	Are you doing some short courses of computer?	70	50	120
Q22	Are you interested in different computer courses?	113	7	120
Q23	Do you want to pursue computer as a future Degree for higher studies?	93	27	120
Q24	If you are given an opportunity for a wide range of short courses according to market demand in 2 year Degree form, would you avail it?	117	3	120
Q25	Please TICK the courses from the list below as per your interest for Associate Degree Program: WITH IT say Yes, with Others say No	100	20	120
Q26	While choosing Computer courses for Associate Degree Program, do you think that would give you better and earliest job opportunities in future?	116	4	120

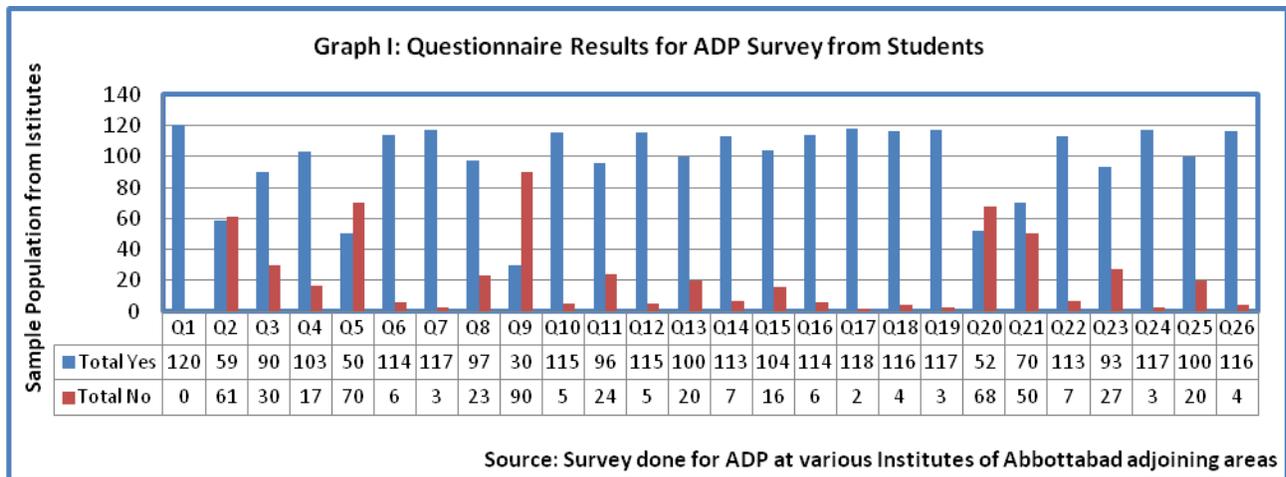


Figure 3: Questionnaire details of ADP survey taken from the students

As one can see from Survey questionnaire in figure I and its plotting in Graph I that all the questions are responded. Response rate is exactly 100 percent which shows the successful conduct of survey. Number of questions answered with Yes is much more in percentage as compared to questions answered with No. Without an iota of doubt, one can see the skyrocket interest of inter students in IT related ADP.

3.4 ADP in IT (comparison with other ADP's)

A massive response (shown below in Graph-II and Graph-III) of student’s interest in favor of Associate Degree Program as compared to BA/BSc Pass clearly shows that students defiantly prefer job oriented degrees if offered. They may be employed more easily after getting some much focused degree from reputable institute. This would also enable them to transfer their credits even after enrolled into ADP. They can earn some good salaried jobs with ADP and may generate enough resources latter on for their transfer into 4 years degree. In Abbottabad, more than 90 percent population is literate which is one of the highest literacy rates of some of the cities in Pakistan. Most of the students don’t enter into the universities due to either high fee structure or not able to get admission into desired programs. So, our focus would be those candidates who due to some reasons can’t get admission into HE. Our aim is to take them on board and taught them some specialized courses of IT in their degree as per demand and make them employed immediately with good salaries.

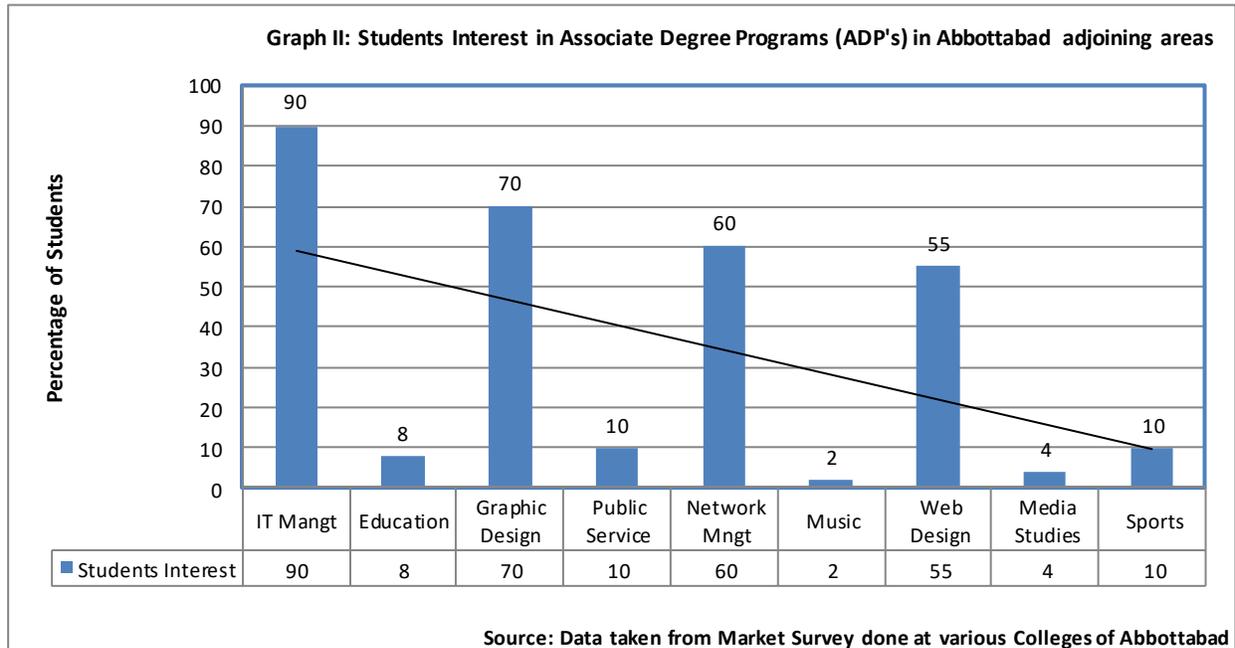


Figure 4: Abbottabads’ students interest in ADP

It is also shown that students are interested more in IT Management ADP, Graphic Design ADP, Network Management ADP and Web Designing ADP as compared to Education ADP, Public Service ADP, Music ADP and Sports ADP. An increase trend is also shown with Linear Trend Line. Students in Abbottabad are keen to enrolled themselves in IT related ADP’s than others.

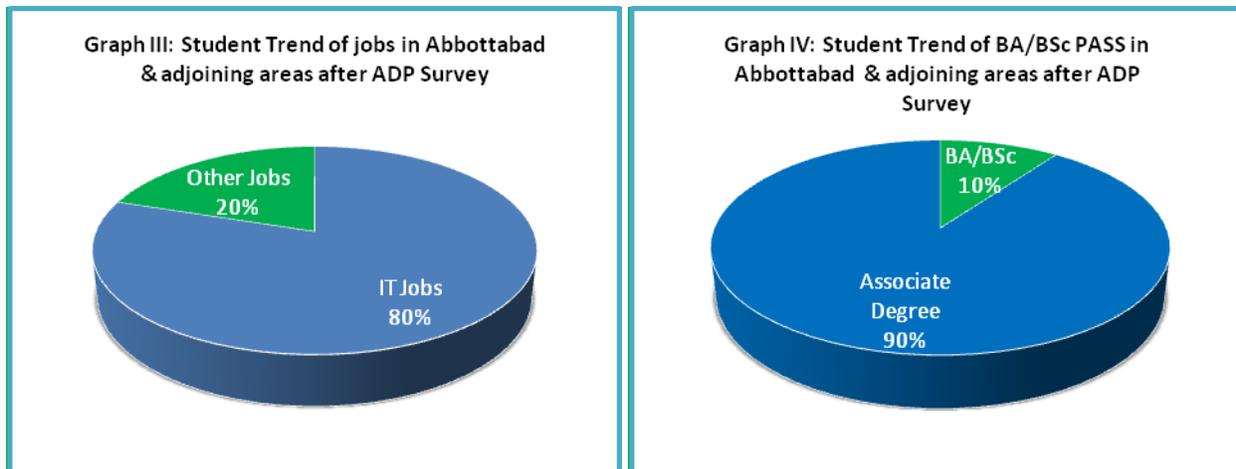


Figure 5: Students trends of jobs and students trend in getting HE

Graph III of Pie chart shown above tells the percentage of IT Jobs trend in college students of Abbottabad and its adjoining areas after the survey. About 80% students have shown their interest in IT related ADP's while 20% have shown their interest in other disciplines of ADP's. These statistics are really opening doors for the ADP's in Abbottabad.

Graph IV shows that students would prefer ADP's as compared to BA/BSc Pass Programs if offered. 90 percent of students at intermediate level showed their interest in ADP in contrast to 10 percent students favoring BA/BSc Pass. It is clear that some efforts are required to be done by the CIIT and HEC to initiate and propose some major ADP's in Abbottabad.

3.5 Survey on Employers' Interest

Abbottabad is blessed with some of the highest turnout of schools, good number of banks, colleges, organizations both public and private, software houses and few industries. The rate of employment is not significant as employers need more market oriented candidates. Another survey on Proforma II (Annex-II) is performed at various employers in Abbottabad like Banks, Software Houses, Educational Institutes (school, college and university), Government offices, Public /Private Organization and Industry).

A total of 11 questions (See below figure-II) were asked from the above employers at Abbottabad and its adjoining areas to answer their interest in Yes/No format. The format of the questionnaire was designed in the following way:

4 questions explored employer's interest in Associate Degree Program as compared to BA/BSc Pass Degree.

3 questions explored employer's commitment towards increase in salary for the ADP holders if offered.

3 questions explored employer's interest in hiring IT ADP holders.

1 question explored the average level of education in employer's departments.

Once again sample population was 120 employers departments. Again excellent response was shown from all departments and all responses were made. Figure II shows below the results of the Employers Proforma:

Figure-II

Table 2 Questionnaire results in quantitative terms from Institutions

Results of Questionnaire Survey in Quantitative Terms with Sample Population of 120 Nos from different Institutes of Abbottabad & its adjoining Areas (Proforma-Annex-II)				
Q.no	Question Statement	Yes	No	Total
Q1	What is the average Education level of the employees at your organization? (= Bachelors with Yes, < Bachelors with No)	100	20	120
Q2	What is the Average Salary for the Bachelor Employee at your organization/institute? (<15000 with Yes, >15000 with No)	120	0	120
Q3	Do you prefer a candidate having plain Bachelor's Degree or have some specialized courses oriented Degree as per market demand?	110	10	120
Q4	Do you prefer a candidate having Computer background?	100	20	120
Q5	If a candidate has some specialized courses as per market demand, would you increase your average salary for him/her?	110	10	120
Q6	If you increase your salary for market oriented specialists, how much would be your average range? (>15000 with Yes, < 15000 with No)	120	0	120
Q7	Are you satisfied with the Market oriented candidates against supply and demand ratio?	20	100	120
Q9	If a specialists degree is offered equivalent to Bachelor Degree but much more focused and specifically as per your demands, would you prefer it?	120	0	120
Q10	Do you believe that an Associate Degree Program can be a better choice rather than plain BA/BSc Pass degree?	100	20	120
Q11	Do you prefer an Associate Degree holder as compared to BA/BSc Pass?	110	10	120
Q12	Please TICK the preferred Associate Degree Program (Average Result taken on Baiss of Computer Degree with Yes and other Degree with No)	105	15	120

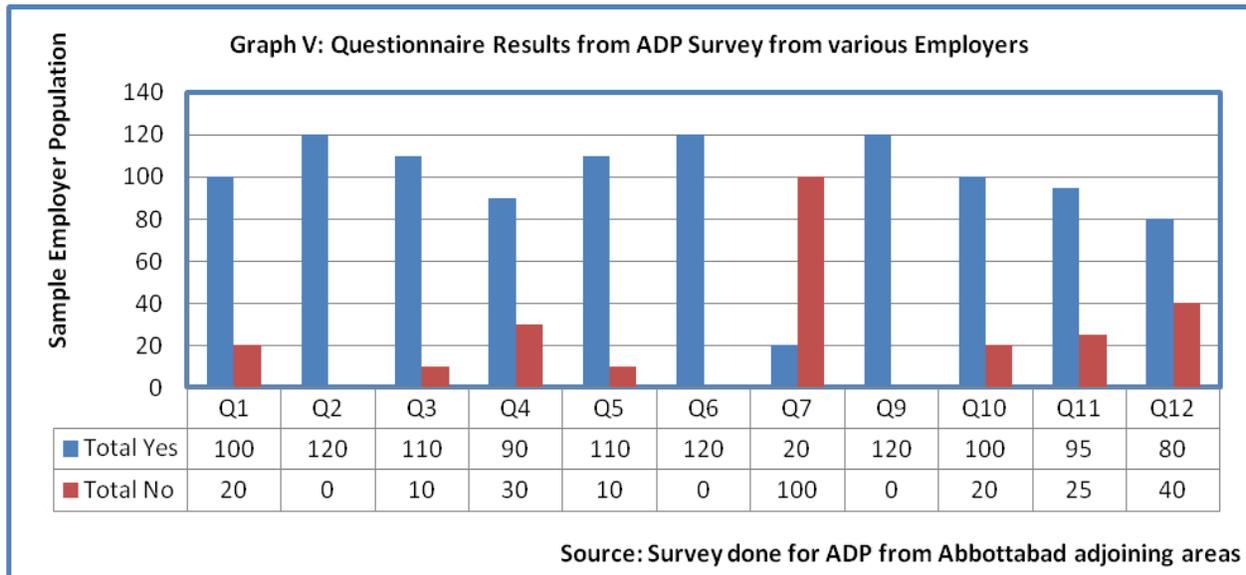


Figure 6: Questionnaire results from Employers for ADP

As one can see from Survey questionnaire in figure II and its plotting in Graph V that all the questions are answered. Response rate is exactly 100 percent which shows the successful conduct of survey. Number of questions answered with Yes is much more in percentage as compared to questions answered with No. Without an iota of doubt, one can see the skyrocket interest of employers' in IT related ADP. According to the survey, it is worth mentioning that perspective employers are committed to increase the salaries of ADP holders about 10,000/- RS more than simple BA/BSc degree holders. This trend is devoted to IT ADP holders. They also mentioned the lack of specialized employees in their departments who can manage and arrange the things for them in a more proficient manner. One can predict from the survey that the average education eligibility in most of the departments in Abbottabad is Bachelors or 14 years of schooling. Simple BA/BSc Pass degree is sufficient in most of the cases but now trend is more towards attracting specialized persons with good incentives.

In this current era, all departments need IT specialists to keep their business up to date. One can see from proforma that employers are not happy with the demand and supply ratio of IT graduates in their departments. So, this is a clear indication to start with ADP in IT related disciplines in Abbottabad right now. It is also important to mention that ADP in IT will not affect normal BS 4-Years Degree programs in IT. We are more focused to take up those candidates who in one way or the other would not able to get admission into normal degree programs. We are trying to increase the level of education in Abbottabad and its adjoining areas with much more market oriented short duration degree.

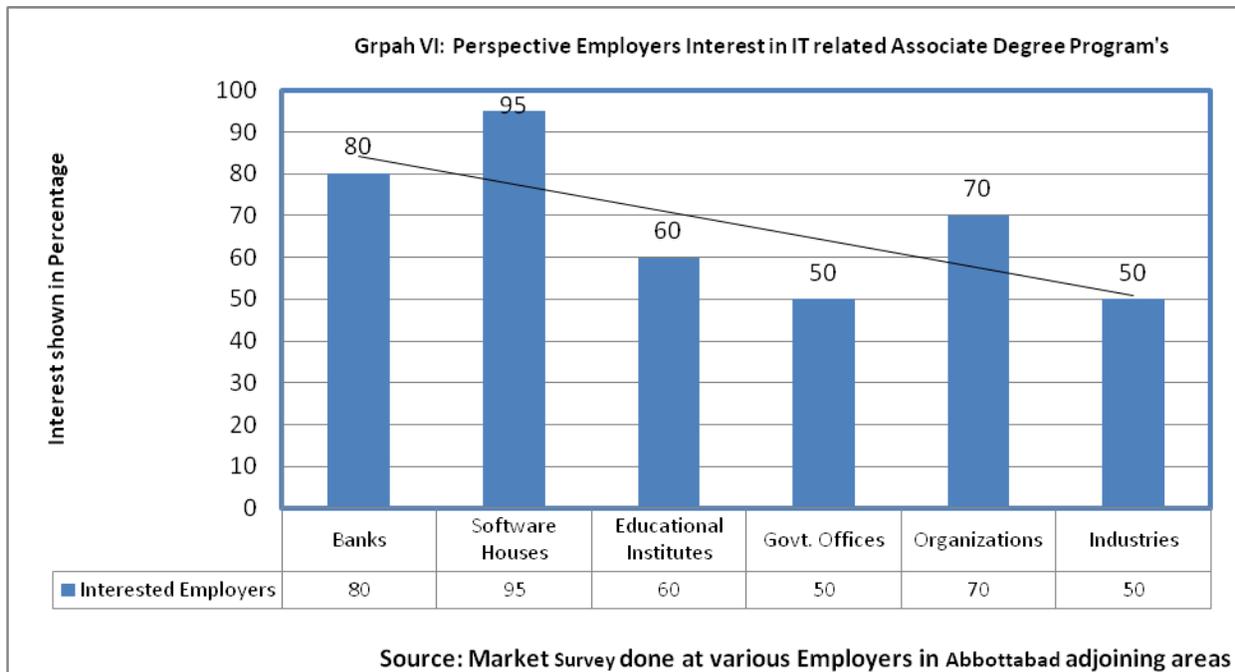


Figure 7: Employers interest in IT related ADPs'

Graph VI above has shown massive increase of employer's interest in the employment of IT persons in Banks, Software houses, Educational institutes, Government offices, Organizations and Industries of Abbottabad and adjoining areas. There are only two Public sector universities in Abbottabad and surely they are not able to fill the gap between supply and demand ratios.

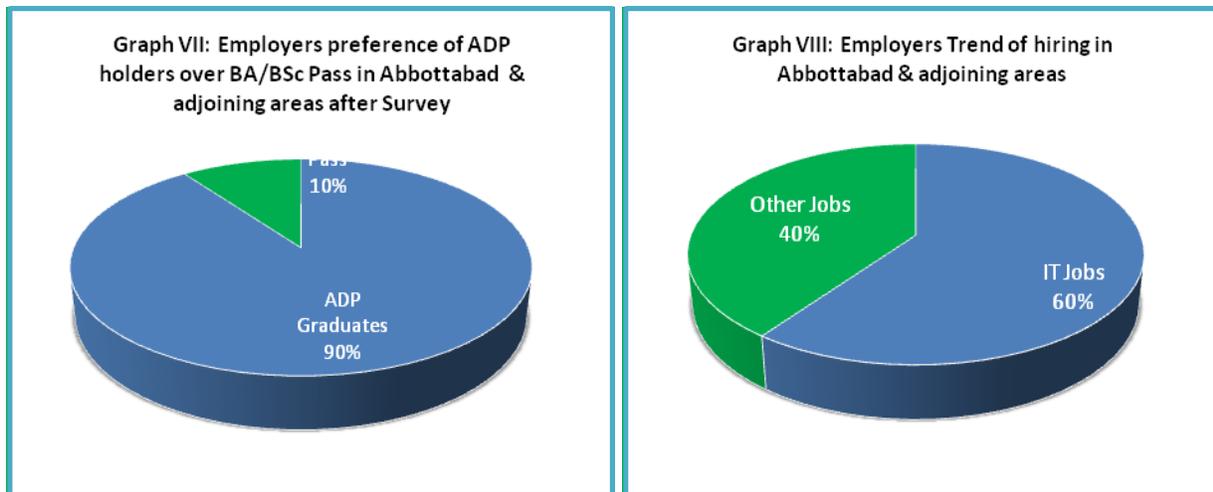


Figure 8: Employers preference of ADP

Some interviews are also conducted with the executive management of various departments relating to ADP's in IT and after giving presentations on ADP's, they have shown their 90 percent interest towards ADP relative to 10 percent interest in BA/BSc Pass degree as shown in Graph VII.

Similarly, there are various types of jobs in Abbottabad in its various departments but the trend is more towards hiring IT professional rather than others as shown in Graph VIII. This number can be increase up to 20 percent more by generating human resource in IT related ADP's.

4. Conclusions & Recommendations

Today's Market is more focused and specific demanding specialists in subject domain. A person with much focused degree will be having greater chances of employment than non-specialists. Also a degree that can be utilized in as many departments as in the market is providing greater flexibility of accommodation. ADP in IT after conducting the above survey is only best choice available to Abbottabad and its adjoining areas right now and in future in a longer run.

An Associate Degree in IT is an excellent way to cut down the time that it would normally take to get into the profession, and is great because it does not have so many entry requirements. The fact that it's only a 2 year program means that you get to spend less too. For those who are looking especially to change careers and do not have the luxury of time and money, it provides an excellent option. A graduate with an Associate Degree in IT has just fast-tracked their way to getting themselves a Registered IT qualification. This is because it comes with a very specific approach towards IT management – you only learn what you need to and is more centered towards what will be covered. With an ADP in IT, because of this much targeted approach, finding a job becomes easier as well.

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