Identifying Significant Factors Associated with Career Selection: A Survey Based Study in Pakistan

Farah Haneef 1, Rabeeh Ayaz Abbasi 2, Muhammad Nouman Noor 3, Fatima Waseem 1*, Aisha Khalid 4

1,2 Capital University of Sciences and Technology, Islamabad, Pakistan
2 Quaid-e-Azam University, Islamabad, Pakistan
3 HITEC University, Taxila, Pakistan
4 National University of Modern Languages, Islamabad, Pakistan

*Corresponding author: fatima.waseem@cust.edu.pk

Abstract:
To best utilize the talent of students, they should be provided with appropriate guidance in selecting their careers. This paper explores and verifies significant factors associated with an appropriate career selection that can lead to success. We consider three broad categories of factors: educational interests and problems, environmental issues and family background. Among these broader categories, we identify seven significant factors important for the appropriate career selection of students. These include parents’ professions, financial problems, favorite subjects in high school, availability of educational facilities, economic circumstances and parents’ influence. We also study the relationship between a professional degree and its relevancy to a profession. Based on a sample (n=228), we find that in Pakistan, around 71% of professionals adopt professions relevant to their professional degrees, whereas 29% of professionals either do partially relevant jobs or join some completely irrelevant professions. Results suggest that for a successful career, students should study the subject most suited to their interests and pursue careers relevant to their professional degrees.

Keywords: Career Selection, Decision Making, Influencing Factors, Factor Analysis, Professionals, Educational Data Mining.

I. INTRODUCTION
For any society, it is essential to capitalize on the talent of its youth through proper counselling. Youngsters who imparted instruction in sync with their interests and capabilities can be much more instrumental in nation-building than those who do not get an education according to their inherent talent and ability. For this purpose, proper career selection can play a pivotal role in a pupil’s life. This decision can make the pupils much more productive or simply can emasculate their abilities and talents and can make them redundant in society. Therefore, to nurture their abilities in a positive way, appropriate professional selection is of utmost importance.

Nowadays, besides many other problems in the education systems of developing countries like Pakistan, students are facing the problem of inappropriate career selection due to a lack of career counselling services. It is a massive hurdle in their learning and education. Unfortunately, many in the developing nations do not take it as a serious problem. When students adopt inappropriate professions, they often become unsuccessful in their practical lives and consequently become frustrated.

In this paper, we particularly focus on the problem of suitable career selection and study the factors which contribute to the career selection process, specifically for developing countries. Although there is no dearth of literature in this regard, however, researchers have focused on different aspects. For example, some researchers have confined themselves to the identification of factors which contribute to the nursing profession [8], some others have reported...
the factors which contribute positively in agriculture field selection [10], some researchers have identified factors suitable for business management field [19], some research has been directed at determining factors influencing the selection of public relation field [20], while some research work has been carried out on the identification of factors influencing the selection of most popular professions in Pakistan i.e. management, medical, engineering, pharmacy and agriculture [1]. Few others have particularly focused on some specific factors like gender and parent’s profession [9] but almost all of these have not focused on learning from the experiences of professionals. This research describes significant factors based on data collected from 228 Pakistani professionals’ experiences. These professionals belonged to the twelve most adopted professions in Pakistan as doctors, nurses, pharmacists, engineers, software engineers, lawyers, banking professionals, scientists, civil servants, armed forces officers, university teachers and researchers. These professionals belong to various geographic areas of Pakistan.

A. Contributions
In this paper, our main contributions are the following:

• Explore and describe the significant factors of the career selection process in a developing country.
• Determine the essentials of success in a professional career.
• Study the impact of a professional degree on the success of one’s career.

B. Research Methodology
In this study, we have done a survey using questionnaires to find the significant factors for the career selection process in Pakistan. Most of the research carried out in this domain has used the questionnaire survey methodology as discussed in the next (related work) section; therefore, we have opted for the same methodology. However, existing literature depicts that in most of the earlier work, the sample consisted of undergraduate and graduate students. In this work, we have considered the scenario when a person is in his/her professional life after having completed his education and will be in a much better position to comment on the pros and cons of his/her decisions of educational training on his/her professional development. This paper, therefore, focuses on factors identified by professionals’ experiences influencing their careers in a better or bad way.

For the selection of factors considered in this study, we did a pilot survey in the Pakistani environment and identified the educational problems from the existing literature [1] [22].

C. Research Hypotheses
To discover the influencing factors which might impact one’s professional career based on his or her educational background and circumstances, we test the following hypotheses:

H1: Mathematical subjects are more popular in males than females.
H2: Financial problems compel people to leave their desired professions.
H3: The parent’s profession has an influence on the selection of a child’s profession.
H4: Parent’s influence in career selection negatively affects career success.
H5: Most students of rural areas face problems of unfavourable circumstances after their intermediate level (12th grade, before entering university).
H6: Favorite subject at matriculation level (10th grade) has a contribution in the selection of a profession.
H7: Favorite subject at the intermediate level has a contribution to the selection of a profession.
H8: Educational facilities do affect the selection of a profession.
H9: Circumstances have a significant influence on career selection.

In addition to studying impacting factors on one’s career, we test two main hypotheses for a successful career. These main research hypotheses are:

HM1: Most of successful people adopt their favourite subject in their careers.
HM2: Most of successful people do a job related to their professional degree.

The basis for these hypotheses is; that people may choose careers which interest them. When people opt for careers relevant to their professional degrees, they can prove themselves and rise in their fields. On the other hand, they might find it difficult to survive in a profession irrelevant to their professional or academic degrees. The above hypotheses
are analyzed based on professionals’ experiences.
The rest of the paper is organized as follows: Section II provides an extensive literature review. Section III presents data collection techniques, sampling techniques, sources of data collection and statistics about data. Section IV presents significant factors. Section V portrays the success criteria. Section VI presents the analysis and exploration of the essentials of success in a career. Finally, in Section VII, we give some conclusions by analyzing the results.

II. RELATED WORK

Important criteria for career choices have been discovered in a number of previous works. [4] claims that crucial tools for effective career counselling and suitable career selection are focus, knowledge, reality, scope, and strategies. Three criteria are described by authors in [23] as influencing career selection: the level of schooling required, the profession to pursue, and the appropriate time to change jobs. They offer a model that integrates career and educational options and shows how these three variables relate to one another. In order to create the model, 12,686 individuals between the ages of 14 and 22 had their full educational background and career history collected. They employed the parameters of Berkovec and Stern’s job search model [5] to analyze the findings. Based on the findings, the authors draw the conclusion that an individual’s decisions regarding profession choice and firm switching have a greater influence on overall earnings than the combined effects of firm and profession-specific earnings.
The authors of [1] list the variables that influence graduates’ professional decisions. They assess different aspects associated with these five professions: management, medicine, engineering, pharmacy, and agriculture. In order to do this, they gather information via a questionnaire with 24 items that are divided into five categories: societal inspiration (influence from parents, friends, siblings, and teachers); growth opportunities (more education, more training); occupational charm (secure employment, benefits, starting pay); self-esteem (lifestyle, respect, and prestige); and working conditions (workload, flexibility, and autonomy). 370 students from eight different universities make up their sample. They come to the conclusion that while results in the domains of medicine, management, and pharmacy differ greatly, women are more impacted by societal inspiration than men.
Using data from 5.6 million parent-child relationships on Facebook, Adamic and Filiz investigate how parents’ careers affect the professional choices of their offspring [2]. In their research, they examine whether family members’ offspring choose to follow in their parents’ or siblings’ careers. Facebook was used to gather information from a variety of experts in order to analyze the impact of parents' occupations on their kids’ career decision-making process. English-speaking people were taken into consideration if they discussed their careers and their connections with their parents or siblings. Gender has little bearing on a child's choice of career, according to the authors' examination of father-son and mother-daughter relationships. The likelihood of a relationship between a parent's profession and their child's profession is low, according to the authors' conclusion, indicating that parents’ careers typically have no bearing on their kids’ professional choices. In addition, the authors assert that there is a 0.25 chance that identical twins will pursue the same careers.
The authors of [22] investigate how students choose their careers and the influence of mass media, parental employment, and personal preference. They use a questionnaire survey to analyze these three aspects in the context of Pakistan. 444 students between the ages of 18 and 26 who were enrolled in one of three business schools made up the study sample. It was discovered that the three variables influenced career choice. The authors come to the conclusion that students’ personal preferences and the media have a greater influence on career choice than do parents’ occupations.
A particular occupation has also been the focus of certain past works. The writers of [8] outline the elements that influence choosing nursing as a profession. Additionally, they performed a survey using questionnaires. Their sample consisted of 82 (70 females and 12 males) nursing students and their parents. The authors suggest that while respect (from academic staff) and a job guarantee are key criteria for parents, security in nursing schools and adequate remuneration are important considerations from the perspective of students. Similar to this, writers in [3] outline the important considerations while choosing a career in sports. The authors believe that when choosing to pursue a career in sports, three fundamental elements should be taken into account: the likelihood of having talent, the cost of training, and the expected salary.
In the same way, the author [10] investigates the variables that may affect students' choice of career. He asserts that
the choice of a vocation is influenced by parents, religious beliefs, coaches, and the student’s favourite personality. According to his assertion, factors such as school size or farming experience do not always affect a person’s decision to pursue a career in agriculture. However, research from 128 University of Tennessee (Martin) agriculture students indicates that those with farming experience are typically more interested in working in production agriculture. He takes into account aspects such as interest in the topic, aptitude and academic ability, white collar vs. blue collar work, personality, powerful individuals, family business and economic stability, gender, colour, and external factors in his research. After carefully examining each of these variables, he comes to the conclusion that family history has the biggest impact, followed by individual preference and family business.

In [29-38] authors specifically focus on the factors which influence career choices regarding some specific profession. The authors of [26] investigate the variables influencing post-graduate public relations students’ course selection and job choices. Their key discovery, based on a questionnaire study, is that post-graduate students in this subject have quite different expectations than undergraduate students do regarding public relations courses and careers. Because of this, undergraduate students prefer publicity and promotion training over business management instruction. Students have various perspectives on occupations, and the discrepancy between perception and reality contributes to career discontent. The authors reached the conclusion that post-graduate students are more aware of the realities of a job than undergraduate students are, and as a result, they prioritize event management and publicity, which are more pertinent to this line of work.

III. DATA COLLECTION

The purpose of this research is to explore possible significant factors for appropriate career selection. In this research, data is collected from different professional’ communities in Pakistan. For this, we have focused on specifically 12 professions which are popular/admired in Pakistan due to their reasonable (above median) salaries. We have collected data from professionals through a questionnaire survey.

A. Sampling Techniques

We have used the snowball sampling technique in combination with non-proportional quota sampling. Snowball sampling has been used because we are interested in approaching the maximum number of Pakistani professionals in a short time span and the purpose of non-proportional quota sampling is to take responses from all areas of Pakistan to generalize our findings [12].

B. Sample Description and Dataset

In our sample, there is a total of 228 professionals which constitute 68% males and 32% females, belonging to all over Pakistan like Punjab, Sindh, KPK, Baluchistan, Gilgit, AJK, Fata and the capital (Islamabad) as shown in Table1. Our sample contains professionals having the age group between 21 to 60 years as shown in Table 2. The professionals in the sample belong to twelve different professions which include: university teachers, researchers, engineers, doctors, scientists, lawyers, nurses, software engineers, civil servants, pharmacists, armed forces officers and banking professionals and are shown in Table 3.

C. Sample Statistics

In the questionnaire, we asked a few general questions such as gender, parent’s profession, and parent’s influence while others were related to educational issues which might possibly have been faced by some students all over the country. As we are interested in finding significant factors in the career selection process, therefore, we asked potentially relevant questions regarding professionals’ educational interests, problems, social issues, and family background. We asked questions about the financial problems which they had to face during their studies. According to an analysis of sample data, 32.8% of people were those who had left their desired profession due to financial problems and 18.5% people were those who had overcome their financial problems and others had no financial problems. Similarly, when we asked the question about educational facilities, we came to know that according to the sampled data, there were
<table>
<thead>
<tr>
<th>Area</th>
<th>Number of Professionals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Punjab</td>
<td>103</td>
</tr>
<tr>
<td>Sindh</td>
<td>58</td>
</tr>
<tr>
<td>KPK</td>
<td>36</td>
</tr>
<tr>
<td>Baluchistan</td>
<td>8</td>
</tr>
<tr>
<td>Gilgit</td>
<td>9</td>
</tr>
<tr>
<td>Capital (Islamabad)</td>
<td>6</td>
</tr>
</tbody>
</table>

Table 2. Group wise number of Professionals

<table>
<thead>
<tr>
<th>Age-Group</th>
<th>Number of Professionals</th>
</tr>
</thead>
<tbody>
<tr>
<td>21-30 Years</td>
<td>65</td>
</tr>
<tr>
<td>31-40 Years</td>
<td>81</td>
</tr>
<tr>
<td>41-50 Years</td>
<td>50</td>
</tr>
<tr>
<td>51-60 Years</td>
<td>32</td>
</tr>
</tbody>
</table>

Table 3. No of Professionals w.r.t each Profession

<table>
<thead>
<tr>
<th>Profession Name</th>
<th>Number of Professionals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Researcher</td>
<td>19</td>
</tr>
<tr>
<td>Software Industry</td>
<td>18</td>
</tr>
<tr>
<td>Engineer</td>
<td>23</td>
</tr>
<tr>
<td>Scientist</td>
<td>14</td>
</tr>
<tr>
<td>Banking Industry</td>
<td>15</td>
</tr>
<tr>
<td>University Teacher</td>
<td>17</td>
</tr>
<tr>
<td>Civil Servant</td>
<td>17</td>
</tr>
<tr>
<td>Lawyer</td>
<td>13</td>
</tr>
<tr>
<td>Doctor</td>
<td>57</td>
</tr>
<tr>
<td>Pharmacist</td>
<td>16</td>
</tr>
<tr>
<td>Nurse</td>
<td>11</td>
</tr>
<tr>
<td>Armed Forces Officer</td>
<td>8</td>
</tr>
</tbody>
</table>

35% of people who had left their desired profession due to a lack of educational facilities in their areas. In the same way, when we asked about other possible issues as parent’s influence the sample data depicts that 56% of professionals were those who had adopted their profession on their parent’s wish as well as their own choice whereas 15% people were those who had adopted their profession only on their parents wish and 29% were those who had adopted their profession according to their own choice.

IV. SIGNIFICANT FACTORS FOR CAREER SELECTION

The factors are elements or causes which can contribute in the profession selection process like gender, favourite subjects, desired profession, financial condition, educational problems, family background, parent’s enforcement and other circumstances. From many possibilities, we have to specifically identify those factors which contribute to the decision-making process of career selection. We call such influencing factors as significant factors. If we know the significant factors for career selection, then we can understand people’s characteristics according to those factors and can gain valuable information about possibly appropriate professions.

To find significant factors, we initially consider only those factors which are relevant to educational interests and problems (favourite subject at matriculation level, favourite subject at intermediate level, educational facilities), environmental issues (province/ location, circumstances, gender) and family background (parent’s profession, parent’s influence, financial problems). To analyze these factors, we have applied the chi-squared test, fisher’s exact test and correlation functions which are usually considered suitable methods to identify the relationships between different factors [18] [24]. For numerical variables, Pearson correlation has been used whereas for categorical variables chi-squared [6] and Fisher’s exact test [14] have been used.
The Chi-Squared Test uses observed values ‘O’ and expected values ‘E’ for calculations. Observed values are; those taken from the dataset and expected values are calculated as (sum of row values X sum of column values) / n, where n is the sum of whole grid values.

\[
\chi^2 = \sum \frac{(O_i - E_i)^2}{E_i}
\] (1)

The Fisher Exact test is not an approximation test and does not give an approximate value of P. As its name suggests, it is a test which gives the exact value of P. It is usually used when the sample size is small and observed values in different cells do not belong to a similar range like; in one cell value is 10 and others as 87, 98, 120, 9, 1 and so on. It does not provide other statistics about the association. It just generates a p-value. Like in the Chi-Squared test, if the p-value is less than or equal to 0.05 then the null hypothesis is rejected, and the alternative hypothesis is accepted [14].

A. Factors Testing

To test our assumptions, we have taken different variables from our dataset, according to the requirements of our hypotheses mentioned in Section I(B) and checked the association between them.

**Gender:** To check whether gender affects the career selection of a student or not, we have applied Fisher’s exact test [14]. We want to find out whether one’s gender influences the choice of his/her favourite subject. For example, if females are more interested in studying biology or males are more interested in studying mathematics. To measure this influence, we consider two variables, gender and favourite subject and find that as Fisher’s exact test has given the P value as 0.2534 which is much greater than 0.05, therefore hypothesis H1 is rejected, which shows that gender does not affect in career selection because there is no distinction of subjects in which only males are interested or only females.

**Parents’ Professions:** In some societies, we can see that most parents who are highly qualified and well-established, have the desire to have their children join their own profession and follow in their footsteps. This way they feel that their children can avail more opportunities and success in life due to their parent’s experience. Therefore, to check whether either parent’s profession affects the career selection of their children or not, we have considered two variables professionals’ adopted profession and their parent’s profession. After applying Fisher’s exact test [14], we have found the p-value = 0.001 which is much less than 0.05 so we can say that hypothesis H3 that parent’s profession affects the career selection process is accepted. To know which professions of parents and children have significant relationships, we have used a standardized residual count. To analyze the individual values having contributed to the rejection or acceptance of the hypothesis, the standardized residual is used in combination with Fisher’s exact test [15]. Standardized residual is calculated as (observed values – expected values) / sqrt(expected values) and it is calculated against every value in the contingency table. This matrix shows which associations are important and in which direction. The values which are greater than 2 and less than -2 are considered valuable (Statistically Significant) whereas values less than 2 and greater than -2 are considered worthless in this analysis process.

Table 4 presents significant relationships between parent’s professions and children’s professions. It shows that if some person’s parents belong to the professions of police officer, judge, law instructor or lawyer then, there children have enormous chances to become lawyers. Similarly, in the medical field, if parents belong to the medical department like a doctor or a medical technician then most probably their children will also join the medical field as a doctor, pharmacist or nurse. The same is true for scientists and teachers too. On the other hand, if someone belongs to the laborer family then there are many chances that he/she may become a civil servant.
Financial Problems: In many developing countries, we can see that the majority of the population has a limited number of resources whereas unemployment rates are also very high. Due to which, sometimes, people force their children to do some business or get some sort of vocational training for their financial assistance. Therefore, they cannot focus on their education and their desired career. To check whether financial problems compel people to leave their desired profession or not we have applied the Chi-squared test on the variables of financial problems and adoption of the desired profession. We find that as the p-value=1.337E-12 which is less than 0.05 so H2 is accepted and confirms that financial problems affect the career selection process as shown in Table 5.

Table 5 shows that people who were not able to pursue their desired profession due to financial problems have a high value, which is 6.31, therefore we can say that the financial problem is a significant hurdle in the adoption of the desired profession. Similarly, there is a negative significant value of the people who have not adopted their desired profession by overcoming their financial problems. By overcoming financial problems, one can adopt his/her desired profession. Therefore, we can say that financial problems can have a key contribution in leaving the desired profession.

Favorite Subject: In our study, we assume that the relevancy of a favorite subject with the adopted profession is very important. Because, when a person performs a task related to his/her interest and ability, then in most of cases, his/her productivity increases. Therefore, there is a need to perform a check on whether studying a favorite subject at the high school level affects career selection or not. For this purpose, we have applied Fisher’s exact test [14] and found the p-value= 0.0004998 (for both matriculation and intermediate levels) which is less than 0.05 which shows that our hypotheses H6 and H7 are accepted. Therefore, we can say that the favorite subject at the high school level affects the career selection process. If we analyze the results through the standard residual matrix, we observe important relationships between different subjects and professions, as shown in Table 6.

Analysis of these shows that if someone is interested in mathematics, then he or she can become an engineer, university teacher or software engineer and should not join the medical field (-3.27 => negatively significant). Similarly, if someone is interested in biology, he may become a doctor or a nurse, but should not go into the
engineering field (-2.52 => negatively significant). If someone is interested in accounting or economics, then that person can join the banking industry.

To check whether location affects career selection or not we have applied Fisher’s exact test on both variables and find p-value= 0.9769 which is much greater than 0.05. It depicts that H5 is rejected and area/province does not affect in career selection. Similarly, we have checked Educational Facilities, Circumstances and Parents’ Influence and found that for all these three factors, the value of p is less than 0.05 which shows that these factors affect in the career selection process, hence resulting in the acceptance of hypotheses H3, H8, and H9. Results depict that the parents have more influence on females than males in career selection.

After the above findings, we find the impact of parents’ influence on professionals’ success, with the help of success rate (explained in section IV). For this, we have explored whether this impact is positive or negative. We have applied Fishers’ exact test on both variables; parents’ influence and professional success. Fisher’s exact test [14] results demonstrate that p-value = 0.3089 which is much larger than 0.05. This depicts an interesting finding that parents’ influence does not negatively affect professionals’ success, hence resulting in acceptance of the hypothesis H4.

V. SUCCESS IN CAREER

Success in a career is a measurable variable, but it has no hard and fast formulation pattern. Different authors have defined it according to their respective analysis [17] [27] [21] [25] [13]. In this paper, we have described Success that we have already defined in [39] as:

\[
\text{Success} = \text{Good performance in job} + \text{Satisfaction with living standard,}\]
\[
\text{Job position and Assigned Work} + \text{fame} \quad (2)
\]

With a range (8-34), at 8, a person is considered as unsuccessful, whereas at 34 the person is considered as highly successful. Success starts at 60% (21-34) as 60% is the basic success criteria in most education systems [11]. We have considered three main factors in success as described in equation (1): performance, self-satisfaction, and fame. Although these three factors are interdependent on each other but they all have proper significance in our context. For example, if a person is performing well, but he did not gain some appreciation and reward, then neither he will be satisfied, nor he will consider himself as a successful person. Similarly, even if a person is highly dedicated to his tasks, but if he cannot perform well due to the lack of knowledge about the assigned tasks, he will neither perform well nor gain any appreciation or self-satisfaction. Therefore, in the context of a career, success can be defined in terms of above mentioned three factors.

### Table 6. Relationship between Favorite Subject and Adopted Profession with Respect to Success

<table>
<thead>
<tr>
<th>Favorite Subject</th>
<th>Profession</th>
<th>Std. Residual Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Science</td>
<td>Researcher</td>
<td>3.00*</td>
</tr>
<tr>
<td>Computer Science</td>
<td>Software Industry</td>
<td>3.13*</td>
</tr>
<tr>
<td>Mathematics</td>
<td>Engineer</td>
<td>5.11*</td>
</tr>
<tr>
<td>Mathematics</td>
<td>University Teacher</td>
<td>2.67*</td>
</tr>
<tr>
<td>Mathematics</td>
<td>Software Industry</td>
<td>2.49*</td>
</tr>
<tr>
<td>Mathematics</td>
<td>Doctor</td>
<td>-3.27*</td>
</tr>
<tr>
<td>Physics</td>
<td>Scientist</td>
<td>3.16*</td>
</tr>
<tr>
<td>Physics</td>
<td>Armed Forces Officer</td>
<td>2.95*</td>
</tr>
<tr>
<td>Biology</td>
<td>Doctor</td>
<td>4.09*</td>
</tr>
<tr>
<td>Biology</td>
<td>Nurse</td>
<td>3.15*</td>
</tr>
<tr>
<td>Biology</td>
<td>Engineer</td>
<td>-2.52*</td>
</tr>
<tr>
<td>Biology</td>
<td>Banking Industry</td>
<td>-2.03*</td>
</tr>
<tr>
<td>Urdu</td>
<td>Civil Servant</td>
<td>2.90*</td>
</tr>
<tr>
<td>Civics</td>
<td>Civil Servant</td>
<td>3.27*</td>
</tr>
<tr>
<td>Accounting</td>
<td>Banking Industry</td>
<td>10.28*</td>
</tr>
<tr>
<td>Law</td>
<td>Lawyer</td>
<td>4.42*</td>
</tr>
<tr>
<td>Economics</td>
<td>Banking Industry</td>
<td>2.39*</td>
</tr>
<tr>
<td>Economics</td>
<td>Lawyer</td>
<td>2.62*</td>
</tr>
</tbody>
</table>

*Statistically Significant
On the basis of the above formulation of career success, survey results show that people who have adopted a profession relevant to their favourite subject have a high success rate whereas people who have adopted a profession irrelevant to their favourite subject have a very low success rate. Figure 1 shows that 64% of the people in a profession relevant to their favourite subject at school are mostly successful persons and 36% out of them are unsuccessful. Whereas, 53% of the people in professions partially relevant to their favourite subjects at school are successful and 47% are unsuccessful. While, people in a totally irrelevant profession to their favourite subject at school, are mostly unsuccessful 74% to be precise and only 26% are successful.

![Figure 1. Success rate vs job relevancy based on profession adopted related to the favourite subject.](image1)

On the other hand, we can see that people who have done jobs relevant to their professional degrees have a high success rate whereas, people who have done jobs irrelevant job to their professional degrees have a low success rate. This analysis leads us to the acceptance of the main hypothesis H_{M1}. Figure 2 shows that 94 % of people doing jobs relevant to their professional degrees are successful and only 6% of them are unsuccessful. On the other hand, 82% of people doing partially relevant jobs to their professional degrees are successful while the remaining 18% are unsuccessful. Finally, for people doing jobs irrelevant to their professional degrees, only 45% of them are successful and the remaining 54% are unsuccessful. This analysis leads to the acceptance of the main hypothesis H_{M2}.

![Figure 2. Success rate vs job relevancy based on profession adopted related to the professional degree.](image2)

VI. PROFESSIONAL DEGREES AND JOB RELEVANCY

In developing countries, due to the shortage of employment opportunities and high level of poverty ratio, circumstances force many professionals to join professions which are irrelevant to their professional degrees. In such cases, due to their lack of interest and lack of knowledge about that particular profession, people do not flourish in their adopted professions. Through the results of the survey conducted for this paper, we have shown the composition of professionals doing jobs relevant to their professional degrees and vice versa. We have also tried to find which types of professionals prefer to do only relevant jobs with their professional degrees. Figure 3 shows that there are 71% professionals, who are doing relevant jobs with their professional degrees. Some 20% of the professionals are doing jobs only partially relevant to their professional degrees. The remaining 9% of the working people do entirely irrelevant jobs to their degrees.
Figure 3. Percentage of persons doing relevant jobs

Figure 4 shows that from above mentioned 12 professions there are 4 professions in which the irrelevant profession adaptation rate is 0%. These include university teachers, nurses, lawyers and armed forces officers. Whereas, doctors, researchers, scientists, pharmacists and banking professionals are those professionals who have a low rate to adopt irrelevant professions. On the other hand, software professionals, civil servants and engineers are some of the professionals who have a relatively high rate of adopting professions irrelevant to their degrees.

From the above analysis, we can infer that a high unemployment rate in developing countries results in professionals opting for jobs not strictly related to their professional qualifications. This impedes their progress in such fields and consequently, they cannot play a role in the development and prosperity of the society which otherwise they could have played effectively.

As main hypotheses of this research are “Mostly, successful people adopt their favorite subject in their careers.” and “Mostly, successful people do a job related to their professional degree”. An analysis of results shows that 64% of people who can be categorized as successful actually adopted a career relevant to their favorite subject in school. And from among the people who do jobs relevant to their professional degrees, 94% are successful in their lives. About 65% of the people who adopted undesired professions think that their performance could have been better if they had adopted professions relevant to their interests. About 57% out of them, think that their satisfaction level would have been more as well.

Therefore, we can accept both hypotheses mentioned in section I(c) and can conclude that “To be a successful person, students should adopt their favorite subject as a career and after that they should join jobs which are relevant to their professional degrees.”

VII. DISCUSSION AND CONCLUDING REMARKS

Our analysis of Section III(A) shows that seven factors affect the career selection process, which includes: favorite subject at the matriculation level, favorite subject at an intermediate level, parent’s influence, parent’s profession, educational facilities, financial problems and circumstances. Therefore, an account of all these factors will serve as a better instrument in career selection. Since the relevancy of a favorite subject to the adopted profession is not the only factor for success in a career, therefore, for proper counselling for career selection, all these factors will serve as important parameters. We can also draw the conclusion that the relevancy of favorite subject to a professional degree and parents’ profession can influence the choice of a child’s career. The factors, gender and location are somehow neutral and do not influence career selection. Financial problems and other unfavorable circumstances negatively affect the career selection process, whereas parent’s influence does not negatively affect career selection.

A student’s interest is a factor which has the highest significance in the career selection process so besides other factors, it is also important to know about the percentage of students whose interest changes during the course of their studies and the possible reasons for it. Our analysis in this context showed that most students do not have a clear idea about their abilities, interests and potential, therefore, a lot of them try to change their profession after the intermediate level. An analysis of survey results shows that 57% of students’ interests from matriculation to intermediate level did not change whereas 43% of students got their interest changed owing to many problems faced by the students. Some of these include: 1) frustration 2) fear of failure 3) wastage of time 4) feelings of helplessness 5) adapting in stable behavior in studies. The possible reasons of change in educational interests are the following:

- The choice of courses available for study increases as students, progress to higher grades of study which results in a change of interest in a particular course.
- A yearning to study a course which will help in entering more money earning professions.
- A feeling of not scoring well in the earlier course of interest in a higher grade of education.

As a student’s interest is the most important factor in the career selection process, therefore, during career selection, students or their career counsellors should give importance to this factor and try to know about their real interests and abilities. For this purpose, teachers and parents can play an important role [7] [16]. As teachers mostly know about their students’ abilities and parents usually know about the nature of their children, they are in a better position to guide the youngsters about appropriate profession selection.

Figure 4. Percentage of professionals doing relevant jobs.
VIII. REFERENCES


