Need for Shariah Based Islamic Finance for Higher Education

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Abstract

Islam has highlighted abundantly the importance of education for the humanity, society and the whole world. In fact, the first word of the revelation is *"Iqra"* which means to read. On the other side, the economies that have emerged in the past and are ruling now all have one common factor among them i.e. plenty of higher education. For a developing country like Pakistan, higher education plays a very imperative ansd significant role in the economic development. However, one can find a sweeping deterioration in the education while ascending upwards from primary to higher education. Researchers have found out several reasons for this diminutive higher education. Therefore, the aim of this study is to explore the factors that are associated with the continuation of higher education in Pakistan. This study also figures out the need to develop a Shariah -based financing for higher education. Data is collected from university students and professionals through structured questionnaire. Descriptive statistics, factor analysis and multiple regression analysis have been used to analyze the data. Results prove finance shortage as main hurdle against higher education. Besides, parental literacy and gender also have impact on continuation of higher education. Higher education commission of Pakistan and universities is offering insufficient number of scholarships. Respondents would like to opt for Shariah- based finance if provided by Islamic banks in Pakistan. This study tries to bridge the gap between higher education seekers and their finances.

Keywords: Higher Education Finance, Shariah based Islamic Finance, Education loan, Pakistan

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1. Introduction

Higher education is considered as one of the vital factors for economic development of a country. No country has achieved persistent economic development without significant investment in higher education. From the under developed to the developed economies, all emphasis is upon higher education as a significant and substantial factor which is directly linked to the economic development of a country.. Hence, higher education is one of the major contributors towards growth performance, financial health and competitiveness in any country. Academicians and researchers have significantly associated higher education with the economic development of any country.

Economies with better education policies, particularly higher education policies, have better competitiveness and dynamic productivity (Ciburiene, Bernatonyte, Simanaviciene, & Startiene, 2019). Investment in higher education is required to accelerate economic growth. Amaghouss and Ibourk (2019) examined the panel data of sixty nine counties from all over the world and concluded that higher education had a significant and positive relationship with economic development of a country. Similar study is conducted by (Seetanah & Teeroovengadum, 2019) for eighteen African economies through Panel Vector Auto regression and concluded that higher education played significant role in the economic development of these African economies. Likewise, Guo (2022) analyzed panel data of 290 cities of China and found a positive association between higher education and economic development in the country.

More precisely, for a developing country like Pakistan, higher education also plays a very imperative and key role in attainment of the economic development of the nation. Karim and Khan (2018) indicate that there is a positive and significant relationship between education and economic growth in Pakistan and suggest that the policy makers should concentrate on education, research and development sector in order to accelerate the economy. Similarly, Haneef (2017) concludes that higher education has a positive and significant influence on economic growth and development of Pakistan. According to him, when government incurs more expenditure on higher education, the enrollments in higher education increases and ultimately the GDP also increases.

Despite the fact that higher education is directly associated with economic development, the present condition of the higher education in Pakistan is not encouraging. Jan (2019) reports that higher education system in Pakistan is far behind from the rest of the world. According to his report, Pakistan is the lowest among Asian countries in the distribution of education budget in its GDP

that has never reached to 3% of its yearly GDP. Nisar (2019) also highlights that the higher education system in Pakistan is far below than the required level and does not meet the international level. He believes that Pakistan cannot develop until the higher education system is qualitatively strong enough.

Likewise, Pakistan Education Statistics (2017) reports that 18,663,756 students are registered in Primary level during year 2017-2018. In middle level, the enrollment of students remains only less than one third. And if we talk about enrollments at tertiary level, only 1,103,446 are enrolled in 14 years of education, a steep decline in 16 years of education that is only 266,226 enrollments. In 16+ years of education, the enrollments decline to 176,844 and finally for PhD level, just 22,147 enrollments are established. Hence, only 5.91% could reach to 14 years bachelor level education as compared to primary enrollments for the year 2017-2018. Similarly, only 1.43% enrollments are in 16 years of education and 0.95% enrollments are in 16+ years of education as a percentage of primary education. And if we talk about PhD level, only 0.12% enrollments are originated as compared to primary education. From these statistics, it can be concluded that there is a dire need to boost the education at tertiary level for the human capital development and economic growth.

On the other hand, Economic Survey of Economic Survey of Pakistan (2018) reveals that the current literacy rate of the country is 62.3% which is much less than the other developing countries in the region. Moreover, The Global Human Capital The Global Human Capital Report (2017) indicates that Pakistan's rank is 125 out of 130 countries in terms of human capital development. Even in sub-continent South Asia; Sri Lanka, Nepal, India and Bangladesh have better ranking as compared to Pakistan. This report further says that low human capital development is because of low educational enrollment. Pakistan is ranked 86 out of 130 countries which is an alarming indicator for tertiary education attainment, even the scores of the tertiary education attainment rate (10.1 out of 100) and tertiary education enrollment rate (9.9 out of 100) are not only the lowest in South Asia but also the lowest in the world.

There are several socioeconomic factors that affect the decision for continuing higher education. These factors include education of parents, father's occupation, marital status, number of family members, quality of the program, quality of the university and the shortage of finance. Britt, Ammerman, Barrett, and Jones (2017) find that the financial stress of the students causes the possibility of withdrawing the education among college students who take

students' loan. Although we emphasize the need of education at all fronts, we fail to understand first and foremost reason for the lack of education in Muslim world in general and Pakistan in particular the shortage of finance in this sector.

Now the question arises whether the shortage of finance is the main reason for uncontinuing higher education in Pakistan? What role is being played by the HEC and banks in providing scholarships or loans to students? Is there any need to develop interest free finance for higher education? Researchers have found out several reasons for decline in higher education like shortage of finance, higher tuition fee, mobility cost, quality of higher education, availability of education loan, interest charges related to education loan, and several other socio- economic and demographic characteristics in Pakistan. Therefore, the primary objective of this study is to explore the factors that affect the continuation of higher education in Pakistan. Moreover, this study discuss the role of higher education commission of Pakistan (HEC) and universities in providing different scholarships. This study further figures out the need to develop a Shariah based financing for higher education.

This study is useful in several aspects. First of all, this study may be beneficial for higher education policy makers. This study may be useful for Islamic Banks to create a new product which will be profitable not only for banks but also for the society at large. This study may also be beneficial for a large number of students who want to take admission in higher education but because of financial constraint, they cannot take admission or continue higher education and lastly, this study adds a comprehensive literature on developing a new financing product for higher education. This paper is structured into six different sections: Section 2 highlights literature review about the higher education, its impact on economic development, present condition of higher education in Pakistan and reasons for stumpy higher education in Pakistan. Section 3 is about the theoretical framework and hypothesis development of the study. Section 4 explains the research methodology, population and sample and analytical procedures used in this study and section five includes results and discussions. Lastly, section 6 has conclusions and policy recommendations.

2. Literature Review

2.1 Higher education and Economic Development

Higher education is commonly seen as a significant contributor towards economic development of a country. According to Zhu, et al. (2018), higher education shows a conspicuous part in defining the competitiveness of a

country. In this study, they examined the impact of the higher education on economic development of the country in the six provinces of Central China and found that higher education had a significant and positive effect on economic growth in Central China. Pastor, Peraita, Serrano, and Soler (2018) conducted a study on European countries and found that higher education institutions were the prominent source of economic growth. Cook and Ehrlich (2018) identified human capital as the engine of growth for any country. According to them, human capital is the intangible asset of a country and by developing human capital is basically to develop the economy. They conducted this study for United States and concluded that higher education spread a higher long term rate of growth in per capita income in United States.

Chang, et al. (2018) explored interactive relationship between education and economic progress in under developed countries. They looked into how the structure of higher education works towards economic expansion in BRICS countries? (Brazil, Russia, South Africa, India and China) and found that there is a unidirectional statistical association between the tertiary education and economic growth. Azar (2018) examined the association between tertiary education and economic growth and per capita income to a panel of 41 counties over the period 1970-2010. The author concluded that tertiary education plays a significant role to speed up the economic growth of a country and per capital income. Hence, a significant and positive association can be established between higher education and economic development of a country (Amaghouss & Ibourk, 2019; Azar, 2018; Batool & Liu, 2021; Bertoletti, et al. 2022; Bloom, 2014; Boopen, 2017; Adam & Isaac, 2018; Gaulee, 2017; Guo, 2022; Yang, 2017).

2.2 Higher education and Economic Development in Pakistan

Pakistan also confirms a positive and significant association between higher education and economic development of the country. Hakim and Hussin (2016) examined the association between economic growth and higher education in Pakistan during the period of 1982-2014. The study indicates that higher education in Pakistan has a significant as well as positive impact on gross domestic product (GDP). Ali, Hakim, and Abdullah (2016) also found a significant and positive relationship between higher education and economic development in Pakistan. Similarly, Azam, Rafiq, and Nazir (2014) indicated that economic development is directly and positively related to higher education in Pakistan. This study takes GDP, GDI, Imports of goods, export of goods, and GNI as a proxy for economic development and all shows a positive relationship

with higher education. Moreover, Aziz, et al. (2010) concluded that there was a positive impact on higher education enrollments with the higher education expenditure and GPD in Pakistan. Hence, researchers find a significant and positive relationship between higher education and economic development in Pakistan (Batool & Liu, 2021; Chaudhary, Iqbal, & Mahmood, 2009; Qazi, Raza, & Jawaid, 2014).

2.3 Socio Economic Factors and its Impact on Higher Education

Paola, et al. (2004) reported that the lack of financial resources on the part of students and issue of cost and availability of funding on the part of educational institutions and universities were the foremost and crucial factors challenged by undergraduate students in order to pursue their higher education. Sadek, Mustafi, and Tauhid (2016) concluded that 80% of people live in villages in Bangladesh, out of which only 7% parents send their children to university level. According to them higher education is affected by region, parents' education, parents' income, parents occupation, family size, religion and type of place of residence. Strayhorn (2010) found that the total loan, tuition fee reduction and deferment status were significantly related to pursue the higher education. Similarly, Murtaza and Hui (2021) explored that the quality standards and infrastructure of the higher education institutions must be improved to increase the numbers and quality of the higher education in Pakistan.

Similarly, Čepar and Bojnec (2013) investigated the determinants of higher education demand in Slovenia and found that cost of education, geographical accessibility, demographic factors and travel cost were significant. Baltar (2018) said that non-affordability was one of the major reasons for many families to get higher education. Similarly, Schendel and McCowan (2016) reported that low and middle income countries were facing severe issue of less expansion in enrollments of higher education. This issue is common not only in developing economies but also in developed economies like Germany, United Kingdom, Spain or United States of America (Breier, 2010; Lassibille & Navarro Gómez, 2008; Quinn, 2004, 2013; Schendel & McCowan, 2016)

Although we emphasize upon the need of education at all fronts, we fail to understand first and foremost reason for the lack of education in Muslim world in general and Pakistan in particular the shortage of finance in this sector. According to Jessie (2015), in developing countries, higher education faces a number of hurdles and glitches all over the world. One of the major reasons for low higher education is lack of sufficient finance. Aids or scholarships are

available for them but they are not sufficient in numbers. Out of these reasons, financial problem is the most prominent and most occurring cause of this drop out. Likewise, Batool and Liu (2021) reveal significant association between socio-economic factors and enrollments in Higher education in Pakistan.

According to Chaudhry (2016), lack of finance is one of the prime reasons for less enrollments in higher education in Pakistan. Chaudhary et al. (2009) reveal that the ratio of higher educated people in Pakistan is very low so there is a dire need to provide students with ample finance to pursue their objectives of getting higher education. On the other hand, Asifa (2018) finds that higher education system in Pakistan has two major complications in its structure i.e. the weak governance and dubious quality of education. In contrast, Shaukat (2016) writes that higher education cost is a burden for students. High tuition fees, utilities, transportation, food, healthcare etc. all are those expenses that students can hardly afford. Similarly, Naz (2019) argues that educational policies of Pakistan are not satisfying the national needs of the country. The government is not only unable to provide low cost higher education but also restricting less privileged students to get quality higher education due to privatization of education. Even there is a lack of sustainable development in the higher education sector in Pakistan (Habib, Khalil, Khan, & Zahid, 2021). Taimoor (2017) explores that lower budget allocation and lack of investment in higher education are prominent reasons for the weak higher education system in Pakistan. Hence, there are some common reasons for the students' drop out in higher education studies, yet financial problem is the most prominent and most recurring cause of this drop out.

2.4 Education Scholarships and Loans Availability in Pakistan

A very few number of scholarships are available for higher education in Pakistan. Less efforts have been made by the government to provide sufficient numbers of scholarships for higher education. The scholarships offered by HEC and universities are not only insufficient in number but also have limitations like area specific, age limit, discipline restricted, hence limiting enrollments in higher education. Similarly, commercial banks' loans are for specific universities, for specific area residence, age limit and many of them are interest based, therefore restricting enrollments in higher education. On the other side, only few Islamic banks offer educational finance but all these plans are based on long term savings and investments for their children and not for themselves. Therefore, these financial plans are not appropriate to finance their own education.

2.5 Shariah Based Finance for Higher Education by Islamic Banks in Pakistan

Islamic banks are offering various financial products to their customers that are Shariah compliant and Shariah based (Muhammad Taqi Usmani, 2007). These services are for the development and welfare of the society at large (Abbas, & Ahmad, 2016). Islamic bank services include a wide range of products and services that cover most of the aspects of personal banking, corporate banking, investment banking and SME banking. These services include bank deposits, home remittances, home financing, car financing, plant and machinery finance, working capital finance, letter of credit facility, short term and long term finances, project finances, financial advisory services and so on and so forth. These Islamic products and services are based on different short term and long term Islamic modes of finances that are Shariah approved. These Islamic modes of finance include Mudarabah, Musharika, Murabaha, Salam, Istisna, Ijarah, Muajjal, and Diminishing Musharika etc. (Ahmad, et al 2011; Ahmed, 2014; Muhammad Taqi Usmani, 2002). Despite this impressive product portfolio, none of these banks are offering a single Shariah product for student finance to pursue their higher education.

There are developing countries with huge number of primary and secondary education enrollments but this drastically decreases at the tertiary education and thus such nations are struggling in their economic growth. Pakistan is also one such country. Regrettably, the scholarships and educational loans provided by Higher Education Commission (HEC) and the government of Pakistan are very less in numbers. Likewise, the higher education loans that are offered by commercial banks are few in numbers, most of the loans are for specific universities, for specific area residence, age limit and some of them are interest based. Islamic banks also offers education loan but all these plans are based on long term savings and investments for their children and not for themselves This leaves us with dilemma of finance shortage for tertiary education students. It is need of the hour to develop such products that provide Shariah based finance for higher education, hence benefiting all stakeholders.

3. Theoretical Framework and Hypothesis Development

Researchers have explored several factors that affect the continuation of higher education. Among several socio and economic factors, lack of finance is one of the most prominent factors. Other factors include the education of parents, father's occupation, high admission fee, high tuition fee, high hostel fee or accommodation fee, high traveling cost or transportation fee, and the quality of the present/current program and the quality of present/current University.

The quality of the current program in which a student is enrolled and the quality of the university also affect the decision of the student to further continue higher education in future (Dahill, Witte, & Wolfe, 2016; Duarte, Ramos-Pires, & Gonçalves, 2013) . On the other hand, Nelson (2009) and Smoke and Vettor (2013) explored the impact of parents' education on the success of their children education and concluded that students with educated parents were more likely to continue their higher education. Shaukat, Siddiquah, and Pell (2014) discovered that gender disparity even exists in the field of education. Salik and Zhiyong (2014) concludes that little attention has been given to the gender equality in higher education and recommended that female higher education should be taken care by government on priority basis. Commercial banks offer interest- based finance which causes a dual burden of principal amount plus interest. According to Islam (2015), interest- based banking has negative impact on the society with financial injustice and negative financial growth.

In contrast, Islamic banking has positive impact on the society. Islamic banks offer Muslims a great opportunity to abide by the principles of Shariah with universally acknowledged principles of equity, honesty, fairness based on profit and loss mechanism (Islam, 2015). Currently, Islamic banks in Pakistan are not offering any specific higher educational plan. Instead, they are offering different saving and investment plans for the education of depositors' children. As it is concluded that finance is one of the main reasons for not continuing higher education in Pakistan (S. A. Chaudhary, 2018), yet interest charge is considered harmful for the society in general and a hindrance in continuing higher education in particular. Many scholars justify interest charge as an evil for the society (Zakir Hossain, 2009).

Based on the above discussion, the following hypothesis are constructed for the current study:

H1: Shortage of finance is the foremost problem to continue higher education.

H2: Imprecise universities' scholarships are the hurdle to continue higher education.

H3: Imprecise HEC's scholarships are the hurdle to continue higher education.

H4: Imprecise banks' educational loans are the hurdle to continue higher education.

H5: Quality of the current program and universities has impact on the continuation of higher education.

H6: Parents' qualification is associated with the continuation of higher education.

H7: Gender has an association with the continuation of higher education.
H8: Individuals think that charging interest on Higher Education loan is not bearable and is harmful for the society.
H9: Individuals would like to take interest free finance for their higher education if offered by Islamic banks.

4. Research Methodology

4.1 Research Design

The current research is based on quantitative research approach and uses a non-experimental design such as research survey by using a structured questionnaire. Creswell and Creswell (2017) define research survey as "a quantitative description of trends, attitudes or opinions of a population by studying a sample of that population.

4.2 Population and Sample

Primary data was collected from the respondents in Lahore who were currently studying at universities and/or doing jobs in offices. The final sample size is 412 respondents which is calculated by the Cochran's Formula with the 12 million population in Lahore. This sample size method is consistent with the study of (Faham, 2019; Mashenene, 2019). 5 point Likert scale was used. Total 500 questionnaires were distributed and 488 were returned, out of which 76 incomplete and incorrect questionnaires were discarded. Cluster sampling method was used for this study. Within the cluster, this study selects individuals for survey through random sampling and inside the strata.

4.3 Analytical Procedures

The statistical software SPSS was used for data analysis. Descriptive statistics was used to examine the demographic characteristics of respondents. Then Cronbach Alpha was used to check the reliability and internal consistency of the questionnaire. After that, factor analysis was used for data reduction and to remove any highly correlated variables from the data by replacing the many correlated variables into fewer uncorrelated components. And in last, multiple regression analysis was used to check the association between the higher education with the independent factors.

4.4 Descriptive Statistics

Frequency distribution is used to precise the respondents' background by calculating some basic indicators. This basic information includes demographic characteristics like gender, age, current education, marital status, hometown, current discipline, and future discipline choice. Table 5 shows the demographic characteristics of the respondents.

Table 4.1: Frequency Distribution Table

Demographic Information		Frequency	Percent (%)
Gender	Male	203	49.3
	Female	209	50.7
Current Status	Studying	240	58.3
	Doing Job	60	14.6
	Doing Business	7	1.7
	Doing job & Studying	84	20.4
	Doing Business & Studying	19	4.6
	Others	2	.5
Current Qualification	Matric	4	1.0
	Inter (12 years)	172	41.7
	Bachelors (14 years)	141	34.2
	Masters (16 years)	65	15.8
	M.Phil (18 years)	29	7.0
	Others	1	.2
Age	Under 15 years	0	0.0
	16 to 20 years	209	50.7
	21 to 25 years	129	31.3
	26 to 30 years	46	11.2
	31 to 35 years	14	3.4
	Above 35 years	14	3.4
Marital Status	Married	55	13.3
	Single	357	86.7
	Divorced	0	0
	Widow	0	0
Current Discipline	Arts	116	28.2
	Business and Economics	105	25.5
	Medical	5	1.2
	Social Science	21	5.1
	Commerce	122	29.6
	Engineering	6	1.5
	Computer Science	7	1.7
	Others	30	7.3
Future Discipline Choice	Arts	96	23.3
	Business and Economics	145	35.2
	Medical	6	1.5
	Social Science	17	4.1
	Commerce	76	18.4
	Engineering	8	1.9
	Computer Science	12	2.9
	Others	52	12.6

50.7% of the respondents are female while 49.3% are male. 58.3% of the respondents are currently studying, 14.6% are doing job, 20.4% are doing job as well as studying, whereas 4.6% are doing business as well as studying. While, 1% of the respondents is in Matric, 41.7% are in inter, 34.2% are in bachelors, 15.8% are in Masters and 7% are in M.Phil. 13.3% of the respondents are married whereas 86.7% are unmarried. 28.2% of the respondents are currently studying Arts, 25.5% of the respondents are studying Business and Commerce, 29.6% of the respondents are studying commerce, 51% are studying social science. Similarly, 23.3% of the respondents would like to choose arts as a future discipline, 35.2% would like to have business and economics and 18.4% commerce.

5. Result and Discussion

5.1 Reliability Test

Cronbach Alpha test provides a reliability coefficient which implies that how well all the items in the data set are positively linked with each other. The value of Cronbach Alpha for all the scale questions was 0.783. This implies that 78.30% from the developed questions are acceptable. So, the internal consistency reliability of the measure used for this study can be considered as reliable and good.

5.2 Factor Analysis

Factor analysis was used to simplify the data by reducing many individual variables into a fewer number of construct or components. Table 3 shows KMO (Kaiser-Meyer-Olkin) test of sampling adequacy and Bartlett's test of Sphericity. Both tests are the measure of how much the data is suited for factor analysis. The results of both tests (KMO value is 0.713) and Bartlett's test of Sphericity (significance level less than 0.05) show that the results of factor analysis are useful.

Table 5.1: KMO and Barlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.713
Bartlett's Test of Sphericity	Approx. Chi-Square	2318.660
	Df	253
	Sig.	0.000

Next table 5 is the table of rotated component matrix that divided all 23 variables into seven components with the allocation of highly correlated variables in each component. Seven components are then named as scholarship procedure and grants, availability of finance, restricted HEC scholarships, accessibility of universities and disciplines, parental literacy, banks procedure for education loan, and HEC scholarships procedures according to the factor loadings.

Table 5.2: Factor Analysis (Rotated Component Matrix)

Questions	Component						
	Scholarship Procedures and Grants	Availability of Finance	Restricted HEC Scholarships	Accessibility of Universities and Disciplines	Parental Literacy	Banks procedure for education loan	HEC scholarship procedures
Do you think that non-availability of finance is the main reason for not continuing your higher education in future?		.579					
Do you think that your total fee of the current program is unaffordable (or very high)?		.808					
Do you think that the admission fee of your current program was/is		.775					
very high?							
Do you think that the rent/accommodation or hostel fee is unaffordable (very high)?	.395	.426					-.333

Do you think that transportation cost/travel cost is unaffordable (or very high)?		.518	.342				
Are you satisfied with the quality of education provided by your university?				.729			
Do you think that non availability of sufficient number of universities is the reason for not continuing higher education?				.801			
Do you think that non availability of your subject area or discipline is the reason for not continuing higher education?				.687			
Do you think that the scholarships offered by universities are less in number?	.792						
Do you think that the scholarships offered by universities are not sufficient to cover all the expenses associated with the degree tenure?	.637						
Do you think that the procedure for getting the scholarships in	.631						

universities is very difficult?							
Do you think that the procedure for getting universities' scholarships takes more time?	.584						.374
Do you think that scholarships offered by HEC (higher education commission) are less in number?	.568						
Do you think that the scholarships offered by HEC are not sufficient to cover all the expenses associated with the degree tenure?	.588		.412				
Do you think that scholarships offered by HEC (higher education commission) are restricted to particular location/geographical area?			.731				
Do you think that scholarships offered by HEC (higher education commission) are restricted to a particular subject/faculty/discipline?			.793				
Do you think that the procedure for getting the scholarships in HEC is very difficult?			.412				.603
Do you think that the procedure for getting HEC scholarships takes							.674

more time?							
Do you think that education loan offered by banks/financial institutions are insufficient in numbers?	1					.775	
Do you think that the procedure of getting education loan in banks is difficult?						.752	
Do you think that banks charging interest on education loan is acceptable and bearable by students?			.364			.594	
Father's Qualification					.872		
Mother's Qualification					.858		
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.							

Based on the results of factor analysis, the following model is formed:

$$CHE = \alpha + \beta_1 SPG + \beta_2 AOF + \beta_3 RHS + \beta_4 AUD + \beta_5 PAL + \beta_6 BPL + \beta_7 HSP + \beta_8 GEN + \mu_{it}$$

Where;

CHE = Continuation of Higher Education, SPG = Scholarship Procedure and Grants

AOF = Availability of Finance, RHS = Restricted HEC Scholarships

AUD = Accessibility of Universities and Disciplines, PAL = Parental Literacy

BPL = Banks Procedure for Education Loan, HSP = HEC scholarship Procedures, GEN = Gender

Following table 6 shows the composite reliability test of all above seven components before running the regression analysis.

Table 5.3: Composite Reliability Test

Components	**Cronbach's Alpha**
Scholarship Procedure and Grants	0.802241
Restricted HEC scholarships	0.734852
Availability of finance	0.765125
Accessibility of Universities and Disciplines	0.783767
Parental literacy	0.856035
Banks Procedure for Education Loan	0.752038
HEC scholarships procedures	0.579448

5.3 Multiple Regression Analysis

Table 7 shows collinearity diagnostic test for multicollinearity. Both the Eigen values and condition indices indicate that there is no issue of multicollinearity among variables. Table 8 shows the results of regression analysis. The overall measure of strength of relationship between the continuations of higher education with the independent variables is measured by R-square which is 18.0%. According to Karen (2008) and Newman and Newman (2000), a small R^2 is equally valid and appropriate in social science researches because in social sciences, it is not possible to obtain a complete explanation of all the variables due to a specific outcome. F-stat shows whether the independent variables predict the dependent variable. P-value of F-stat is less than 0.05which shows a reliable prediction between dependent and independent variables of the current study.

Table 5.4: Collinearity Diagnostic Test

Model		**Eigenvalue**	**Condition Index**
1	1	2.179	1.000
	2	1.232	1.330
	3	1.110	1.401
	4	1.000	1.476
	5	.905	1.552
	6	.775	1.676
	7	.680	1.791
	8	.619	1.876
	9	.501	2.086

Table 5.5: Multiple Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	4.391	.037		118.5	0.000		
Scholarship Procedure and Grants	.110	.044	.133	2.489	*.013	.707	1.414
Availability of finance	.085	.040	.103	2.106	*.036	.850	1.177
Restricted HEC scholarships	-.052	.042	-.063	-1.238	.216	.774	1.292
Accessibility of Universities and Disciplines	.206	.038	.251	5.385	**.000	.938	1.066
Parental literacy	-.108	.038	-.132	-2.830	*.005	.940	1.064
Banks Procedure for Education Loan	-.023	.040	-.028	-.585	.559	.866	1.155
HEC scholarships procedures	.108	.044	.131	2.447	*.015	.708	1.412
Gender	.095	.038	.116	2.487	*.013	.933	1.072
Variable is Significant at 1% and 5% level of significance.							
Model Summary: R^2 = 0.18, Adjusted R^2 = 0.164, Durbin Watson 1.958, F-Stats = 11.080 (Sig = 0.000)							

Multiple regression analysis shows that scholarship procedures and grants, availability of finance, Number of universities and availability of disciplines, HEC scholarship procedures, gender and parental literacy are significantly associated with the continuation of higher education in Pakistan. In contrast, restricted HEC scholarships and banks' procedure for educational loan are insignificant with the continuation of the higher education.

The first significant factor with the continuation of higher education is the scholarship procedures and grants provided by different universities and HEC. Less number of scholarships offered by universities and HEC, difficult and time taken procedures for getting universities scholarships and insufficient scholarship grants by universities and HEC to cover all the expenses associated with degree tenure are the main features of current scholarships of HEC and universities are causing the hurdles in the continuation of higher education.

The second significant variable (availability of finance) includes high admission fee, high tuition fee, hostel fee and travelling costs----- all are associated with the continuation of higher education; these results are consistent with the results of (Baltar, 2018; Breier, 2010; Cepar & Bojnec, 2013; Chapman & Sinning, 2014; Jessie, 2005; Lassibille & Navarro, 2008; Pigini & Staffolani, 2013; Quinn, 2013; Schendel & McCowan, 2016).

Next significant factor is accessibility of universities and disciplines. The universities are less in number and the disciplines or subjects offered by universities are less in number. If universities offer more subjects or disciplines, then the higher education may increase. The next significant factor includes parental literacy. Educated parents strengthen their children to continue higher education. These results are consistent with the findings of Herrold & Donnell, 2008; Nelson, 2009; Sadek et al., 2016; Smoke & Vettor, 2013; Turk, 2019). Lastly, gender is also associated with the continuation of higher education in Pakistan. Parents generally encourage their sons to educate more as compared to their daughters. These results are consistent with the results of Batool, Sajid, & Shaheen, 2013; Salik & Zhiyong, 2014; Shaukat et al., 2014).

Besides, table 9 affirms the need for interest free finance for Higher education in Pakistan. 36.4% of the respondents are strongly agree that charging interest on education loan is harmful for the society and 29.1% of the respondents are agree, in contrast only 2.9% respondents are strongly disagree and 11.4% of the respondents are disagree on that. Many researchers also explored that charging interest was harmful for the society (Islam, 2015; Saleem, Khan, & Siraj, 2013; Zakir Hossain, 2009) While, 20.4% of the respondents strongly disagree that charging interest on education loan is acceptable and bearable by the students, 18.7% of the respondents are disagree, in contrast only 16.7% respondents are strongly disagree agree on that. 35.9% of the respondents strongly agree (and 33.7% are agree) that Islamic banks should offer Interest free finance (Shariah based) for higher education. Only 2.2% of the respondents are strongly disagree (and 6.8% are disagree) on that. 25% of the respondents are strongly agree (33.5% are agree) to take interest free finance from Islamic banks. Only 5.6% of the respondents are strongly disagree (or 15% are disagree) on that.

Table 5.6: Need for Interest Free/ Shariah based Finance for Higher Education

Questions		Frequency	Percent
Do you think that charging "interest" on education loan is harmful for the society?	Strongly disagree	12	2.9
	Disagree	47s	11.4
	Neutral	83s	20.1
	Agree	120	29.1
	Strongly Agree	150	36.4
	Total	412	100.0
Do you think that banks charging interest on Higher Education loan is bearable and acceptable by students?	Strongly disagree	84	20.4
	Disagree	77	18.7
	Neutral	101	24.5
	Agree	82	19.9
	Strongly Agree	68	16.5
	Total	412	100.0
Do you think that Islamic banks should offer Interest free finance for Higher Education?	Strongly disagree	9	2.2
	Disagree	28	6.8
	Neutral	86	20.9
	Agree	139	33.7
	Strongly Agree	148	35.9
	Total	410	99.5
Would you like to take interest free finance from Islamic Banks?	Strongly disagree	23	5.6
	Disagree	62	15.0
	Neutral	86	20.9
	Agree	138	33.5
	Strongly Agree	103	25.0
	Total	412	100.0

6. Conclusion:

The current study is conducted to explore the factors that affect the continuation of higher education in Pakistan. This study also highlights the need to develop a Shariah- based financing for higher education. Data was collected through closed ended questionnaires and factor analysis and multiple regression analysis were applied. This study concludes that the non-availability of finance is the main reason for not continuing higher education. High tuition fee, high admission fee, high accommodation fee, and high travelling cost are the main hurdles. HEC and universities are not offering sufficient number of scholarships and these scholarships are unable to cover all the expenses associated with the whole degree tenure. Besides, parental literacy and gender also have impact on continuation of higher education.

Most of the respondents who want to continue their higher education think that charging interest on higher education loan is not bearable and acceptable by students and it is harmful for the society. And this was the main reason for carrying out this research. Moreover, most of the respondents think that Islamic banks in Pakistan should offer Shariah based interest free finance for education loan and they would like to avail this facility in order to finance their higher education if interest free facility offered by Islamic banks. This also proves that Finance is the main hindrance in the continuation of higher education in Pakistan. In case financial solutions are developed, the sector will flourish more rapidly. The purpose is to present a viable commercial mechanism for all stakeholders i.e. students, education providers, Islamic banks, parents, HEC and Shariah board using purely Islamic finance products.

References

Ahmad, A., Awan, R. U., & Malik, M. I. (2011). An overview of the operations/products offered by Islamic banks in Pakistan. *African Journal of Business Management, 5*(11), 4185-4190. doi:https://doi.org/10.5897/AJBM10.724

Ahmed, H. (2014). Islamic Banking and Shari'ah Compliance: A Product Development Perspective. *Journal of Islamic Finance, 3*(2), 15-29. doi:https://doi.org/10.12816/0025102

Ali, A., Hakim, R. A., & Abdullah. (2016). The relationships between higher education and economic growth in Pakistan. *Journal of Management and Training for Industries, 3*(2), 16.

Amaghouss, J., & Ibourk, A. (2019). Higher Education and Economic Growth: A Comparative Analysis of World Regions Trajectories. *Economia Internazionale/International Economics, 72*(3), 321-350.

Asifa, A. (2018, May 10). Higher Education System in Pakistan - What went wrong and How to Fix it. *Daily Times*. Retrieved from https://dailytimes.com.pk/238270/higher-education-system-in-pakistan-what-went-wrong-and-how-to-fix-it/

Azam, A., Rafiq, M., & Nazir, F. (2014). Socio-Economic Impact of Higher Education in Pakistan.

Azar, D. P. (2018). Higher education and economic development: can public funding restrain the returns from tertiary education?

Aziz, B., Khan, T., & Aziz, S. (2010). Impact of higher education on economic growth of Pakistan.

Baltar, C. C. (2018). Assessing the Economic Benefits of Higher Education. *JPAIR Institutional Research, 11*(1). doi:https://doi.org/10.7719/irj.v11i1.587

Batool, S. M., & Liu, Z. (2021). Exploring the relationships between socio-economic indicators and student enrollment in higher education institutions of Pakistan. *Plos One, 16*(12), e0261577. doi:https://doi.org/10.1371/journal.pone.0261577

Bertoletti, A., Berbegal-Mirabent, J., & Agasisti, T. (2022). Higher education systems and regional economic development in Europe: A combined approach using econometric and machine learning methods. *Socio Economic Planning Sciences*, 101231. doi:https://doi.org/10.1016/j.seps.2022.101231

Bloom, D., Canning, D., Chan, K., & Luca, D. (2014). Higher education and economic growth in Africa.

Boopen, S. (2017). *Higher Education and Economic Growth: Evidence from Africa.* Paper presented at the Proceedings of Economics and Finance Conferences.

Breier, M. (2010). From 'financial considerations' to 'poverty': towards a reconceptualisation of the role of finances in higher education student drop out. *Higher Education, 60*(6), 657-670. doi:https://doi.org/10.1007/s10734-010-9343-5

Britt, S. L., Ammerman, D. A., Barrett, S. F., & Jones, S. (2017). Student loans, financial stress, and college student retention. *Journal of Student Financial Aid, 47*(1), 3.

Čepar, Ž., & Bojnec, Š. (2013). Macro-level determinants of relative participation in undergraduate higher education in Slovenia. *Eastern European Economics, 51*(6), 75-92.

Chang, V., Chen, Y., & Xiong, C. (2018). Dynamic Interaction between Higher Education and Economic Progress: A Comparative Analysis of BRICS Countries. *Information Discovery and Delivery*(just-accepted), 00-00.

Chaudhary, A., Iqbal, A., & Mahmood, G. S. Y. (2009). The Nexus between Higher Education and Economic Growth: An Empirical Investigation for Pakistan. *Pakistan Journal of Commerce & Social Sciences, 3*, 1-9.

Chaudhry, S. A. (2016). Plight of Higher Education in Pakistan. *The Nation*. Retrieved from https://nation.com.pk/25-Jan-2018/plight-of-higher-education-in-pakistan

Ciburiene, J., Bernatonyte, D., Simanaviciene, Z., & Startiene, G. (2019). Higher education as factor for economic development: Lithuanian case. *Contemporary educational researches journal, 9*(2), 1-11. doi:https://doi.org/10.18844/cerj.v9i2.3820

Cook, A., & Ehrlich, I. (2018). Was Higher Education a Major Channel Through Which the US Became an Economic Superpower in the 20th Century?

Cook Adam, & Ehrlich Isaac. (2018). Was higher education a major channel through which the US became an economic superpower in the 20th century? *Journal of the Asia Pacific Economy*, 1-39.

Economic Survey of Pakistan. (2018). *Education Budget (2018-19)*. Retrieved from https://www.finance.gov.pk/survey/chapters_19/10-Education.pdf.

Gaulee, U. (2017). The Role of Higher Education in Economic Growth: A Comparative Analysis of the Republic of South Korea and the Republic of India.

Guo, Y. (2022). Higher Education Development, Regional Economic Growth and Opening to the Outside World. *Asian Business Research, 7*(1), 45. doi:https://doi.org/10.20849/abr.v7i1.994

Habib, M. N., Khalil, U., Khan, Z., & Zahid, M. (2021). Sustainability in higher education: what is happening in Pakistan? *International Journal of Sustainability in Higher Education*. doi:https://doi.org/10.1108/IJSHE-06-2020-0207

Hakim, R. A., & Hussin, A. (2016). The Relationships between Higher Education and Economic Growth in Pakistan. *Journal of Management and Training for Industries, 3*(2), 16.

Haneef, A. (2017). *Higher education impact on human development: A case study from Pakistan.* University of Agder Retrieved from https://uia.brage.unit.no/uia-xmlui/bitstream/handle/11250/2459860/Haneef,%20Adeel.pdf?sequence=1

Jan, A. N. (2019). A glance at education system of Pakistan. *Chitral Today*. Retrieved from https://www.chitraltoday.net/education/

Jessie, Y. (2015). Five Reasons Why All Students Are Not Able to Pursue Higher Education by Jessie Yarrow. In *Dr. Doug Green*.

Karim, N., & Khan, F. (2018). The Effect of Investment in Education on Socio Economic Development of Pakistan. *Pakistan Journal of Humanities & Social Science Research, 1*(2), 67-73. doi:https://doi.org/10.37605/pjhssr.1.2.6

Lassibille, G., & Navarro Gómez, L. (2008). Why do higher education students drop out? Evidence from Spain. *Education Economics, 16*(1), 89-105.

Murtaza, K. G., & Hui, L. (2021). Higher Education in Pakistan: Challenges, Opportunities, Suggestions. *Education Quarterly Reviews, 4*(2).

Naqvi, S. M., Abbas, K., & Ahmad, A. (2016). Riba Free Loan in Islamic Finance: Key to Social Development and Welfare. *European Online Journal of Natural and Social Sciences, 5*(2), pp. 559-567.

Naz, S. (2019). Impact of Globalization on Higher Education in Pakistan: Challenges and Opportunities. *International Journal of Innovation in Teaching and Learning 2*(2). doi:https://doi.org/10.35993/ijitl.v2i2.363

Nisar, A. (2019, January 21). Challenges for Higher Education System in Pakistan *Pakistan and Gulf Economist*.

Pakistan Education Statistics. (2017). Ministry of Education, Pakistan Education Statistics 2016-17, National Education Management Information System Academy of Educational Planning and Management, Ministry of Federal Education and Professional Training Government of Pakistan Islamabad.

Paola, R. J., Lemmer, E. M., & Wyk, N. v. (2004). Factors influencing the participation of undergraduate students from sub-Saharan Africa in higher education in the United States of America.

Pastor, J. M., Peraita, C., Serrano, L., & Soler, Á. (2018). Higher education institutions, economic growth and GDP per capita in European Union countries. *European Planning Studies*, 1-22.

Qazi, W., Raza, S. A., & Jawaid, S. T. (2014). Higher education and growth performance of Pakistan: evidence from multivariate framework. *Quality & Quantity, 48*(3), 1651-1665. doi:https://doi.org/10.1007/s11135-013-9866-9

Quinn, J. (2004). Understanding working-class' drop-out'from higher education through a sociocultural lens: Cultural narratives and local contexts. *International Studies in Sociology of Education, 14*(1), 57-74. doi:https://doi.org/10.1080/09620210400200119

Quinn, J. (2013). Drop-out and completion in Higher Education in Europe. *European Union*.

Sadek, M., Mustafi, M., & Tauhid, U. (2016). Socio-Economic Determinants of Higher Education Student's: A Case Study on Chittagong University. *Scholar Journal of Research Review 1*(1), 29-38.

Schendel, R., & McCowan, T. (2016). Expanding higher education systems in low-and middle-income countries: the challenges of equity and quality. *Higher Education, 72*(4), 407-411. doi:https://doi.org/10.1007/s10734-016-0028-6

Seetanah, B., & Teeroovengadum, V. (2019). Does higher education matter in African economic growth? Evidence from a PVAR approach. *Policy Reviews in Higher Education, 3*(2), 1-19. doi:https://doi.org/10.1080/23322969.2019.1610977

Shaukat, Z. (2016). Analysis: The rising cost of higher education in Pakistan. *The Express Tribune*. Retrieved from https://tribune.com.pk/story/1111394/analysis-rising-cost-higher-education-pakistan

Strayhorn, T. L. (2010). Money matters: The influence of financial factors on graduate student persistence. *Journal of Student Financial Aid, 40*(3), 1.

Taimoor, K. (2017). The Sad Dilemma of Higher Education and Research in Pakistan. In *Dunianews TV http://blogs.dunyanews.tv/17430/*.

The Global Human Capital Report. (2017). *World Economic Forum* Retrieved from https://www.weforum.org/reports/the-global-human-capital-report-2017

Usmani, M. T. (2002). *An introduction to Islamic finance* (Vol. 20): Brill.

Usmani, M. T. (2007). *Ghair Soodi Bainkari*.

Yang, F. (2017). Higher Education and Economic Growth in China.

Zhu, T.-T., Peng, H.-R., & Zhang, Y.-J. (2018). The influence of higher education development on economic growth: evidence from central China. *Higher Education Policy, 31*(2), 139-157.