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MEASURING ACADEMIC RESILIENCE ON INSTITUTIONAL STABILITY IN PUBLIC SECTOR UNIVERSITY STUDENTS: A CASE STUDY OF PROVINCE PUNJAB, PAKISTAN

Fariha Sohil[1], Shafat Hussain[2], Muhammad Umair Sohail[3]

[1,2] Department of Education, Govt. College University Faisalabad, Pakistan

[3]Department of Statistics, Quaid-I-Azam University, Islamabad, Pakistan

Corresponding Author Email: [1]s.fariha66@gmail.com

ABSTRACT

The aim of the study is to discover the perceived level of academic resilience and perceived level of institutional stability in public sector university students. The target population is consisting of Bachelors of Science (BS) students studying at public sector universities in Punjab.A random sample of size 1678 (for quantitative data) and 16 (for qualitative data) student is selected for this investigation. Quantitative data analysis is carried out through such as: Person r and Anova. The predictive estimation of the student is performed by using decision trees and linear discriminant analysis. Qualitative data were analysed through thematic analysis.

INTRODUCTION

Stability is defined as the condition of being reliable or unlikely to change suddenly and institutional stability is referred to as strong mechanism of being reliable, firm, powerful and sharp in transition. However, institutions do keep an eye on certain dynamic and systematic processes, which account for their natural in time and their influence in shaping human reactions. Institutional structures do not respond in any quick and runny way to alterations in the local or global environment. Institutions once established tend to reproduce themselves in a systematic mode. In a given environment (of internal and external factors), the institutions and their patterns of behaviour generate stability. This behaviour will replicate as long as this context remains the same

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(Greif and Laitin, 2004). Two main reasons account for such tendency to stability:

 i. The influence of previous organizations.
 ii. The mechanisms by which institutions are reinforced.

If institutions are adjusted quickly to develop social, political and economic environments, and shape the behaviour of individuals in which individuals operate by providing extra incentives and guiding collective behaviour, which would be the key point in studying the processes of institutional stability. Attention could be focused either on the motivations of individuals or groups or in the external and contextual factors. However, if the formal, informal or both institutions, the study of institutional dynamics performances such as: human action and decision-making takes place are the important agenda of social sciences research (Greif and Laitin, 2004).

Concept of Resilience

The concept of resilience has been used to describe the various ways in which individuals handle challenges and risks. Most of the educationists are interested to understand the concept of resilience in an effort to support all students perform better. Our educational system is scrambling to meet the demands for knowledge, skills and identification and treatment of academic, emotional, social, mental and health concerns of our youth (Meneghel et al., 2019). Researchers are hypothesized that the study of students who have overcome risk and adversity will further develop and understand normal development and diversity in significant way.Wittrup et al. (2019) described the idea of resilience as a self-righting mechanism. This idea involves an understanding of success in the setting of the organization or individual. Understanding the context of success within a system would serve as a reference point to determine if an individual was successful. According to Rutter (2012) resilience is an active process, which results in exposure to adversity rather than avoiding adversity. Resilient people are able to manipulate their atmospheres in such a way to protect themselves from the negative consequences of the adverse condition. Many people cope with adverse situations by avoiding the situation. A second feature of resilience described by Rutter (2012) is it builds positive attitude from past experiences. Experience with adverse circumstances aids in the development of skills to deal with hardship. Resilient people are able to generalize their experience from one experience to another. Thirdly, significant risks vary over time means individual resilience will vary over time, depending on risks and available protective factors. A fourth feature is that certain factors can function as both a risk and as a protective factor, depending on the context (Gintner, 2017) and in this study it will be referred to as academic resilience.

Academic Resilience

The concept of resilience has got huge attention in the past three decades with findings published in a number of disciplines, including child development (Ager, 2013), paediatrics (Martin and Marsh, 2006), Psychology (Kutlu and

Yavuz, 2016) and education ((Roth et al., 2007). Recently, researchers are interested to examined resilience in the university environment (Radovan and Makovec, 2015). According to Yavuz and Kutlu(2016) academic resilience can be defined as "the process and results that are part of the life story of an individual who has been academically successful, despite obstacles that he/she faced". Academic resilience is defined solely by exceptional academic achievement in the face of adversity. Masten and Coatsworth (1998) further define academic resilience as a satisfactory performance in intellectual or academic tasks in spite of their unfavourable backgrounds. It is particularly important to be resilient in an academic environment, which is characterized by growing academic pressure, decreased provision of academic support, potential social isolation and long-term financial debt (Robinson and Carson, 2016). How well the students are adjustedin an educational environment depends on the protective and risk factors that operate in the educational institute. Those who receiveany benefit from strong protective factors tend to be more resilient, experience fewer adjustment issues and cope better with challenges (Good and Shymansky, 2011). Resilient students sustain high levels of achievement, motivation and performance extraordinary despite their stressful environment at university level. Resilience is a positive outcome; an individual uses the external and internal protective factors to over the risk factors that exist within the context.

Rational of the Study

During university studies some students encounter setbacks, low academic performance, study pressure, downward spiral of under-achievement, buckle under the pressure of university; while other students accept these challenges energetically and achieve their academic goals. Students having strong academic resilience can solve these obstacles during studies. Our focus is to discover why and how some students can achieve academic success in their academic carrier while other are not, despite of their risk factors and academic setback they may face is same for all of them. Moreover, the resilience approach attempts to discover characteristics of students and their adjacent environment that are connected with academic success instead of risk factors of circumstances. Academic resilience studies enhance our knowledge regarding individual (internal) and collective (external) factors that are connected with academic success. Research shows that there was high failure rate in the higher education sector. Only a few studies are explored regarding academic resilience on ethnic minority groups and low achiever (Rojas, 2018). Considering the above facts, the objective of this investigation is to determine whether academic institutional stability of university students differ significantly in terms of gender, education variables (grade levels perceived academic success in high school perceived academic success in university and major) and family related variable (parent education level, household monthly income, number of family persons and their residential locality) are also taken into consideration through this study. Bulk of student'senrolmentsin various institutions may face failure in their academic goals such as drop out or repeating their academic courses. These failures can produce negative impact in students' self-esteem and self-perception. So, students are unable to achieve their future goals successfully. As there is lack of empirical researches that

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determine how academic resilience is affected by institutional stability of the university students, the researcher intended to conduct this research that may support students, teachers, and concerned authorities of higher education for elimination of such problems faced by students during university education.

Statement of the Problem

Higher education plays a vital role in every field related to national growth. Most of the public sector universities that are responsible for providing higher education by facilitating students according to their available best sources, but still there are many hindrances that are significantly affect the students' success. Academic resilience enables students to deal positively with the hindrances occurring during their studies or in their social life. Fraenkel et al.(2011) strongly recommend that academic resilience is one of the possible solution for helping students to persist in university education. Thus, the present study investigates the effects of academic resilience on institutional stability in university students.

RESEARCH METHODOLOGY

In this researcher, we focused ona mixed method "QUAN-QUAL"approach for the study, which following questionnaire and semi-structured interview of the public sector universities students. The data collection related to the research objectives is defined as follows:

Participant

The population of the study is consisting of students which are enrolled in BS programs at public sector universities located in Punjab province. Thus, the target population of this study comprised of all students of BS Honour (4 years programmers) studying at thirty-four public universities (HEIs) located in the Punjab province of Pakistan.A simple random sample of 1678 students of eight public sector universities is selected for this study.

Procedure

Researcher developed two instruments, which are used for data collection. (i) Closed ended questionnaire based on four-point liker scale and (ii) semi-structured interview schedule designed by the researcher for qualitative data collection. Both instruments are used after confirming their validity and reliability. Data is collected from the respondents through various techniques like personal visit, e-mail and by postal services. The questionnaire packet included brief description of all items regarding how he/she can respond to the questionnaire items. After it, the questionnaires are distributed among the students and their response is collected from them.
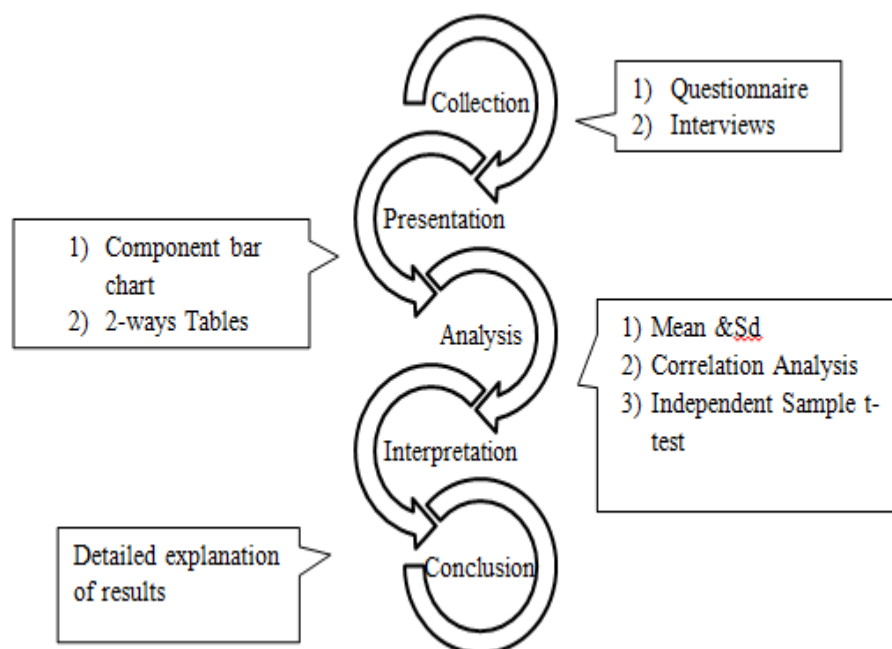
Demographic Measures

In Table 1, the data description of the demographic variable is briefly explained by the two classification of entire data set. For this study, eight public sector universities are selected randomly from the available thirty-four universities in the province Punjab. From the selected sampled units of $n = 1800$ students, only 1678says$r$ students can provide the response and remaining$(n - r)$ students are reluctant to report their true response due to their personal and social problems. The overall non-response rate is 6%. From the 1678 university students, 724 are the male students and 954 are the female students. In the selected sample, 206 students are selected form university of agriculture Faisalabad (UAF), 202 students belong to university of Punjab (PU), 204 students are belonging to the islamia university Bahawalpur and remain are defined in Table 1. 852 students are those who belong to rural area and 826 are those belong to urban area. 880 students are living in their own houses, 704 are the resident of rent houses and 94 are the resident of those houses which are own by the other family members. In this investigation, 5 have their CGPA between 2.10 to 2.50, 295 are those have their CGPA between 2.51-3.0,892have their CGPA between 3.01 to 3.5 and 486 are those who have CGPA between 3.51 to 4.0. In column wise the departmental affiliation of the students defined in significant way.   Out of 1678 respondents,   77 belong to department of Life Science, 111 have their affiliation in Mass Communication department, 165belongs to Economics department, 185student have their affiliation from Engineering department, 181are those who are students of the department of Physical Science, 122are belong to Islamic Oriented Learning department, from the History and Pak Study department 94 student are selected, 163 respondents belongs to Pharmacy department, 100English Literature, From Education department 160 students provide the response, 111 are belong to Law department, 88have their

affiliation from department of Sociology and reaming belong to Political Sciences department.

Table 1: Description of demographic variable

Gender

M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
34	43	55	56	68	97	89	96	88	93	48	74	34	60	74	89	35	65	62	98	44	67	35	53	58	63

Name of Uni.	Gender		Life Science	Mass Communication	Economics	Engineering	Physical Science	Islamic & Oriented	History and Pak. Studies	Pharmacy	English Literature	Education	Law	Sociology	Political Science	Total
GCUF	M	85	11	26	33	17	9	7	10	17	17	41	20	7	15	230
	F	145														
UAF	M	90	6	12	8	2	20	27	23	22	19	32	8	9	18	206
	F	116														
PU	M	85	2	20	17	33	35	15	10	15	3	18	11	3	20	202
	F	117														
IUB	M	91	7	8	19	26	30	13	6	34	17	19	0	12	13	204
	F	113														
GCUL	M	99	11	13	26	22	24	20	7	7	10	19	8	29	9	205
	F	106														
BZU	M	94	20	8	24	15	15	9	11	37	18	19	13	15	8	212
	F	118														
ARID	M	98	6	16	27	23	29	18	12	6	5	11	26	6	19	204
	F	106														
UG	M	92	14	8	11	47	19	7	21	25	11	1	25	7	19	215
	F	133														
Total			77	111	165	185	181	116	100	163	100	160	111	88	121	**1678**

Resident	Gender															
Rural	M	360	40	74	75	88	97	80	45	59	45	90	59	42	58	852
	F	492														
Urban	M	364	34	37	90	97	84	42	49	104	55	70	52	46	63	826
	F	462														

Living Status	Gender															
Own	M	391	50	51	103	105	105	52	51	73	35	88	64	47	66	880
	F	489														
Rent	M	298	27	57	54	75	64	63	27	84	45	69	64	36	49	704
	F	406														
Own by Other	M	35	0	3	8	5	2	7	16	6	20	3	3	5	9	94
	F	59														

CGPA	Gender																
2.0-2.5	M	1	0	0	4	0	0	0	0	0	0	1	0	0	0	5
	F	4														
2.51-3.0	M	139	17	20	49	29	64	26	4	6	8	27	13	17	5	295
	F	156														
3.1-3.5	M	377	37	51	91	95	60	64	64	90	37	77	67	55	67	892
	F	515														
3.5-4.0	M	207	23	33	21	61	27	32	26	67	55	55	31	16	39	486
	F	279														

Statistical Analyses

For the better understanding of the effect of institutional stability on the academic resilience, we use the Pearson correlation coefficient. For the better understanding of the academic resilience, we use the classification trees. The predictive estimation of the sample units is carried out with the help of linear Discriminant Analysis (LDA), Quadratic Discriminant Analyse (QDA) and K-Nearest Neighbours (KNN). These statistical methods are discussed as:

Correlation Analysis

Most of the researchers are interested into measure the positive or negative relation between the different variable by using the correlation analyses. We define a hypothesis to measure the relationship between the academic resilience and institutional stability, as:

Hypothesis 1: There is no significant relation between the institutional stability and academic resilience.

Table 2: Correlation analyses

Variable	Statistic	Institutional Stability
Academic Resilience	Pearson Correlation	0.934**
	Sig.	0.000
	N	1678

From the Table 2, it is easily concluded that there is a significant relationship exist between the academic resilience and the institutional stability of the public sector university student. The Pearson correlation values 0.934 shows that the academic resilience between university students has been increased as the increase in institutional stability increased. At the 5% level of significance, we reject hypothesis 1 that there is a significant association between the studied variables. The p-value (0.000) is smaller than the level of significance.

Final Remarks

On the basis of current numerical findings basis on the LDA, QDA and KNN method, we are able to report it that the KNN predication approach has the better prediction accuracy as compare to LDA and QDA. The group of all explanatory variables are positive and large in magnitude. The coefficients of the LDAs show that all the predictor variables have the significant effect of the overall performance of the academic resilience of the university students. In CT, the prediction accuracy is 88.81%, which is larger than LDA and QDA but smaller than KNN. So, we conclude it that KNN perform much better as compare all of it. From Figure 1, we observed the effect of the significant predictor variable along with the effect of each category (D, A, SA). The total frequency of each group is reported for the significant illustration of academic resilience.

From this investigation we are able to understand the academic resilience by the institutional stability in public sector university BS students. Researchers and public/private sector departments/organizations may get help from this study toprepare/implement their policies in their institutions to improve the academic resilience of students.

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