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STUDY THE RELATIONSHIP BETWEEN USE OF ICT AND ACADEMIC ACHIEVEMENT OF STUDENTS AT UNIVERSITY LEVEL IN PANDEMIC 2020

*Afshan Sharif¹, Dr. Sohaib Sultan², Dr. Sadaf Zamir Ahmed³, Dr. Rabia Mushtaq⁴,
Huma Akbar⁵*

¹M. Phil Scholar in Education Air University Islamabad

²Assistant Professor Department of Humanities, Education & Psychology Air University
Islamabad (Sohaib.sultan@mail.au.edu.pk)

³Assistant Professor Department of Humanities, Education & Psychology Air University
Islamabad

⁴Assistant Professor, Institute of Clinical Psychology, University of Karachi

⁵M. Phil Scholar in Education Air University Islamabad

Email: Sadaf.Zamir@mail.au.edu.pk

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ABSTRACT

In the twenty-first century, technology is a major concern in all fields, including education. ICT plays its major role in education during the COVID-19 epidemic. Due to Covid-19, education system was fully transformed into ICT based learning. The purpose of current investigation is to determine relationship between the use of ICT and academic achievement of students at university level in pandemic 2020. Investigation of the study based on the objectives to examine the attitude of students regarding usage of the ICT at university level in pandemic 2020; to determine the effects of demographic factors (Qualification, Gender, Age) over the use of ICT and academic achievement of students at university level in pandemic 2020. The Population of this investigation consisted of all the university students of Islamabad. The sample of this study was 140 students from all the universities of Islamabad. In order to collect the data simple random sampling was used in this study. The design of the

study was descriptive research design and it was a quantitative study. A self-made instrument was used in order to gather data. The instrument having 10 items was a close-ended questionnaire. The statistical techniques used were Frequency, Percentage, Mean, t-test, ANOVA and Pearson Correlation. It was concluded that there was a positive and encouraging attitude of students about the use of ICT at university level in pandemic 2020, which is important for students for their academic achievement. The second conclusion is based on second objective and it is concluded that there is a significant effect of demographic factors (gender, age, qualification) over the perception of students regarding the ICT usage in Academic Achievement. The third conclusion is based on third objective and it is concluded that there is no significant relationship between the use of ICT and academic achievement of the students. There is a positive correlation between use of ICT and Academic Achievement of the students.

INTRODUCTION

Technology is a major concern in every field including education, in the twenty-first century. In fact, in many countries, technology replaced the traditional means of information sharing. Our society have evolved as a result of the integration of technology, and individuals now live, work, and think very differently. Schools must prepare pupils for life in a "knowledge society," so they should think about incorporating ICT into curricula. (Ghavifekr, Afshari & Amla Salleh, 2012).

The usage of computer-based communication which is integrated into the regular educational process in the classroom is stated to as information, communication, and technology (ICT) incorporation in education. Teachers are observed as the essential players in implementing ICT in their regular classroom settings and training the pupils for modern digital settings. This is a result of ICT's facility to provide an active and dynamic teaching-learning atmosphere (Arnseth & Hatlevik, 2012).

ICT applications play a crucial role in education during the COVID-19 epidemic. Due to Covid-19, education system was fully transformed into ICT based learning. According to UNESCO 2020's assessment, the epidemic has a terrible effect on worldwide education (Statista, 2020). In more than 200 nations where schools and colleges were ordered to close, 95% of the world's students—representing 1.7 billion students from kindergarten to graduate school—had been affected by the virus pandemic by May 2020 (UN, 2020). This fact led many colleges and universities to start implementing online learning.

According to Basri, Alandejani & Almadani, (2018) the improvement of the knowledge as well as skills of the students is indicated in their grading, it also affects the development of the personalities and academic advancement of the students from low levels to the high levels, is referred to as the students' academic achievement. The rationale of researching academic achievement in connection to ICT adoption during pandemic is to demonstrate a strong correlation between the mentioned variables.

In the current scenario, due to Covid-19, the requirement for ICT integration is crucial in education, because by using the technology, the teaching and

learning process continues even the teachers and students are physically distanced. Digital technology like Zoom, GCR, Google Meet and other online platforms have made teaching learning possible in this pandemic. This investigation was conducted to examine the relationship between usage of the ICT and the academic achievement of students at the university level during the 2020 pandemic.

Statement of the Problem

Due to covid-19, there is a drastic change in the mode of education. Educational institutions have started providing education through the online mode. The study aim is to determine the relationship between usage of the ICT and the academic achievement of students at the university level during the 2020 pandemic.

Objectives of the study:

Following are the objectives

1. To examine the attitude of students regarding usage of the ICT at university level during pandemic 2020.
2. To determine the effects of demographic factors (Qualification, Gender, Age) over usage of the ICT and student's academic achievement at university level in pandemic 2020.
3. To determine the relationship of ICT and students' academic achievement at university level in pandemic 2020.

Research Questions:

1. What is the attitude of students regarding usage of the ICT at university level in pandemic 2020?
2. What is the effect of demographic factors (Qualification, Gender, age, organization) over usage of the ICT and academic achievement of students at university level in pandemic 2020?
3. What is the relationship between usage of the ICT and academic achievement of students at university level in pandemic 2020?

Hypothesis

H₀: There is no significant relationship between usage of the ICT and academic achievement of students at university level in pandemic 2020.

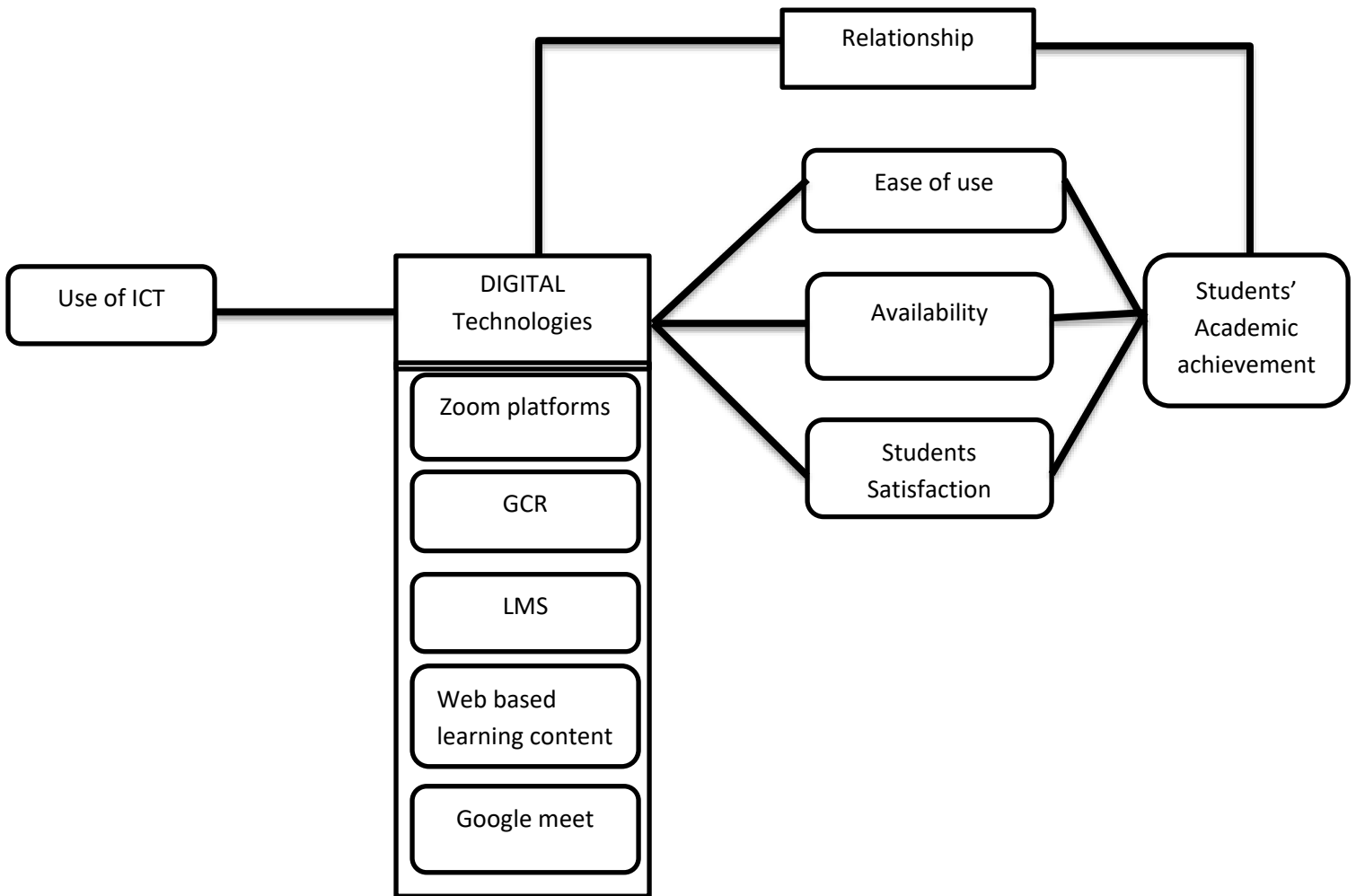
H₀: There is no significant demographic factors effect (Qualification, Gender, Age) over usage of the ICT and academic achievement of students at university level in pandemic 2020.

Significance of the Study:

The study is beneficial for teachers, administrators and students as well for the development of a positive attitude regarding usage of the ICT during pandemic e-learning. This study will be beneficial for students as well as

researchers as it will contribute to their studies and accelerate their knowledge regarding usage of the ICT and its impact on student academic achievement during the 2020 pandemic.

Conceptual Framework



LITERATURE REVIEW

In this world, there is an extensive history of lethal diseases. Pandemic is the deadliest outburst of a transferrable disease, which is easily transferable and causes not only death and disease, but also political, social and the economic distraction. Evidence shows that the exploitation of environmental and natural resources along with the higher rate of globalization, urbanization has enhanced the possibility of pandemics and threats (Cunningham et al., 2017).

COVID-19 is a fatal pandemic of the existing era. The coronavirus wave is a persistent ailment that is spreading quickly over the world. This disease is formed by an acute respiratory disease coronavirus2 (SARS-CoV-2). In China, December 2019, first Covid-19 patient was recognized and then later on, in March 11, 2020 WHO stated Covid-19 as a pandemic disease.

In Pakistan, on February 26, 2020, the very first two cases of COVID were identified. One student from University of Karachi, Pakistan and one from the Islamabad were Covid-19 patients in Pakistan. Over time, more and more cases of COVID-19 have been reported, which has led to the closure of educational institutions. Educational institutions have been closed due to the public health emergency due to the contagious effect of coronavirus. In order to manage the situation of shutting of educational institutions, UNESCO suggested educational institutions to equip and prepare them with e-learning gears (Crawfordetal., 2020).

In Pakistan, due to the closure of universities, HEC directed the universities to develop and improve the online learning system. On a huge scale, higher education system of Pakistan still depends on conventional instruction and training methodology. All the higher institutions of Pakistan and also their consistent programs are qualified by the Pakistan Higher Education Commission.

According Lawrence (2015), The ICT is becoming the central medium for revolution and enhancement of effectiveness for several sectors around the world. ICT has played an important part in the education sector it helps to enhance the method of learning for university students in their classroom setting as well outside their class. In the past two decades government and other participants of education sector like university administration and scientist have spend millions of dollars to implement ICT.

For the previous two decades, Institutes of higher education have broadened their education system through ICT comprising of Moodle, Microsoft teams, LMS, zoom social meeting App, syncretic remote learning, online classes lectures and tests as well as web based teaching content. Jordan have invested most universities to provide the students with modest resources of teaching systems and technology. This will permit teaching staff to enhance their educational training programs and teaching and also how to use a traditional open source e learning platform for example Moodle, Microsoft Teams and Zoom platforms, which is used at the University of Jordan for online learning available on university web servers. (Fakhouri, Hamtini, 2012).

According to Ellis and Loveless (2013), specify that the HEC instruction cannot be isolated from the teaching learning process and from the innovation. Their work asserts that the major part of ICT in the higher education cannot be ignored. In another study, similar findings have been made by Chan et al. (2013), who places considerable significance on the crucial role that ICT plays in democratising higher education and catering to the evolving needs of the students.

In another investigation, Sari and Mahmutoglu (2013), an exemplar shift is major requirements that can be endorsing the student-cantered approaches implementation to getting the revolution at university level teaching methodology. According to the modern methodology, in the learning environment researchers main aim students should be an active element, rather than passive with the help of an effective teacher's supervision. Similarly, in

the findings of another study (Iniesta-Bonillo et al., 2013), with the help of ICT is noteworthy in students engaging in an active form and this can help to increasing the students productivity and efficiency of the tutorial support. The ICT is most worthy for student's engagement.

All the stakeholders of HEC which are involve in HEC policy making, they emphasize that ICT system must be adopt in every education systems of university. According to issued report of UNESCO institute of statistics (2013), stated that all the university administrations and governments are investing a huge amount of in adaptation of ICT to their university educational system globally. There are several attempts that assess the effectiveness of ICT implementation in their educational institute by using the both the empirical and theoretical method (Castillo-Merino and Serradell-Lopez, 2014).

Many investigation frameworks for inspecting implementation of ICT in the higher education had focused only on the facets which are related to the performances in teaching. Performance indicators are used in frameworks to uncover the influence of variables such as how infrastructure and resource accessibility plays their role. Few researches found that, the organizational principles and the application process at different stages (Castillo-Merino and Serradell-Lopez, 2014). The international and national progressive levels have made unbelievable progress in forming rules and guidelines that maintain the ICT incorporation in education sector (Attuquayefio and Addo, 2014). University administrations and faculty members also viewing for suitable methods and approaches to implement ICT application for improvement of teaching terminating into enhancement of the student's performance. However, the notable achievement of all efforts recognised as an outcome brought about by ICT or as an impact of its application is not recognizable.

There are various substantial studies that estimate pathways ICT and its educational influence. According to SITES supported by the IEA, has estimated and designated how ICT has worked effectively in about 26 countries around the world (Voogt et.al, 2013). The study determines how school administrators and the ICT team organize devices across multiple stages. Although this research investigates influence of ICT on academic achievement of the students, it focuses on the methodologies used by teachers, their viewpoints and their opinion regarding the influence of ICT on the pupils' performance (Croteau et.al.2015). Correspondingly, Cruz-Jesus et al., (2016), examine numerous research work associated with the result of ICT carried out in Europe educational institutes. Their findings show that there is a strong and unprecedented suggestion of the ICT implementation impact on student performance. No studies provide applicable results that point to constructive acceptance of ICT on the student performance. Additional every study has used exclusive procedure and style making it more complex to compare consequences among the countries studied.

Numerous research studies have done to evaluate the ICT impact in the education area. Solar et al. (2013), discussed that the implementation of ICT enhances learning excellence and increase the education quality. This is steady

by Gallego et al. (2014), according to him a nation requires execution of ICT strategies and principles which are operative and dynamic for an effective development of the education quality at any level. Babaheidari and Svensson (2014), mark a different deduction that ICT effect on outcomes of learning is not exciting. According to Lin et al. (2014), there is no validation that using ICT in education has had a significant impact. Similar to this, Wastiau et al., (2013) noted that, usage of the ICT in academic success has positively affected, while Venkatesh et al., (2014), conclude that, usage of the ICT has no real effect on the education because studies are based on socio-economic circumstances of students.

Furthermore, it looked into the topic on qualitative technique at national level to assess the competence and efficacy of the performance of the students that resulted by usage of ICT. For example, Wastiau et al. (2013) piloted a comparable investigation in Europe whereas Macharia and Pelsler (2014) evaluated educational proficiency in Africa. Regarding the relationship of ICT adoption and university students' academic achievement, all studies have produced conflicting findings. Additionally, they have left a gap in the literature because none of these studies have taken into account factors like ICT usage in relation to academic performance of the student's grades, gender, as a moderate or dependent variables. Similar to this, research on students' academic performance exist, but very few of them have attempted to link it to the adoption of ICT at higher education system. This sums up the area of research that this study seeks to fill.

RESEARCH METHODOLOGY

The survey was done by the research to conduct the study. This chapter discusses the research design, population, sample, data collection and also data analysis of the study.

Research Design

Design of the study was descriptive research and survey method was used. Descriptive research method is a research process which inspects the condition as it happens in its present state. This study was quantitative in nature. According to Creswell (2002), stated that quantitative research is the procedure of assembling, construing, and writing the consequences of any study.

Population

Gay, Mills and Airasian (2012), stated that the population is the entire set of interest to the researchers. It may be any mass or terrestrial area. The Population of this study consisted of students from the Islamabad Universities of Pakistan.

Sample

According to Gay, Mills and Airasian (2012), sample is the representative portion of the entire population. The sample of this study was 140 students

from all the universities of Islamabad. The simple random sampling technique was utilized by the researchers for collecting the data.

Delimitation

This study was delimited to the universities of Islamabad.

Research Instrument

Researchers developed a questionnaire to collect the data from the sample. The questionnaire was comprised of 10 items and items were consisted of close-ended questions.

Collection Data

Questionnaire was used to assemble the data from the students of university level. The researchers collected the data through an on-line platform.

Data Analysis

Researchers analysed the data through descriptive and inferential statistics. Descriptive statistics (mean and percentage) were applied to investigate the perception of students about the use of ICT. The researcher applies t-test and ANOVA for the demographic factors. Pearson r is used to identify the relation between usage of the ICT and academic achievement.

DATA ANALYSI AND INTERPRETATION

This investigation observes the students' attitude towards usage of the ICT and academic achievement. It also measures the relationship between usage of the ICT and academic achievement. This chapter is dealing with data analysis and interpretation. This chapter have been divided into two parts.

Descriptive Statistics

1. Tabular and Graphical Representation of Demographic Factors which includes frequency and percentages.
2. Percentage of the Response in Questionnaire which includes Percentage and Mean score.

Inferential Statistics

1. ANOVA and t-test is used for demographic factors.
2. Pearson r is used to find out the relation between use of ICT and students' academic achievement

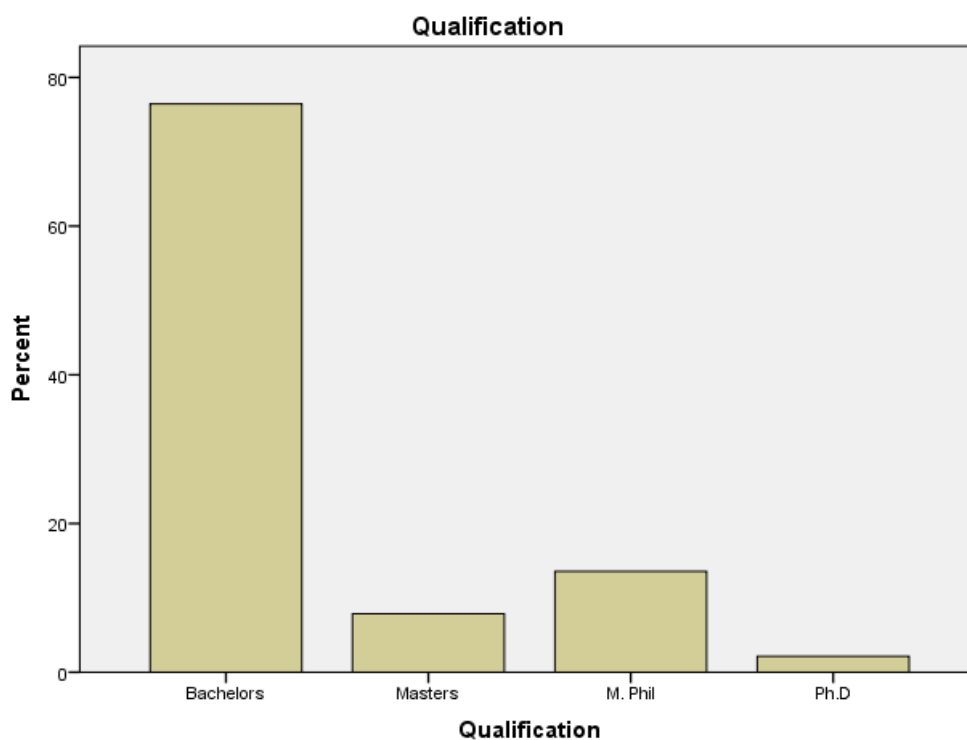
Descriptive Statistics

Tabular and Graphic Representation of Demographics

Table.4.1: Qualification Representation

Sr. No	Qualification	Frequency	Percentage
1.	Bachelors	107	75.9
2.	Masters	11	7.8
3.	M. Phil	19	13.5
4.	Ph.D	3	2.1

Above table presents that 107 Bachelors, 11 Masters, 19 M. Phil and 3 Ph. D students at university level participated in this investigation.

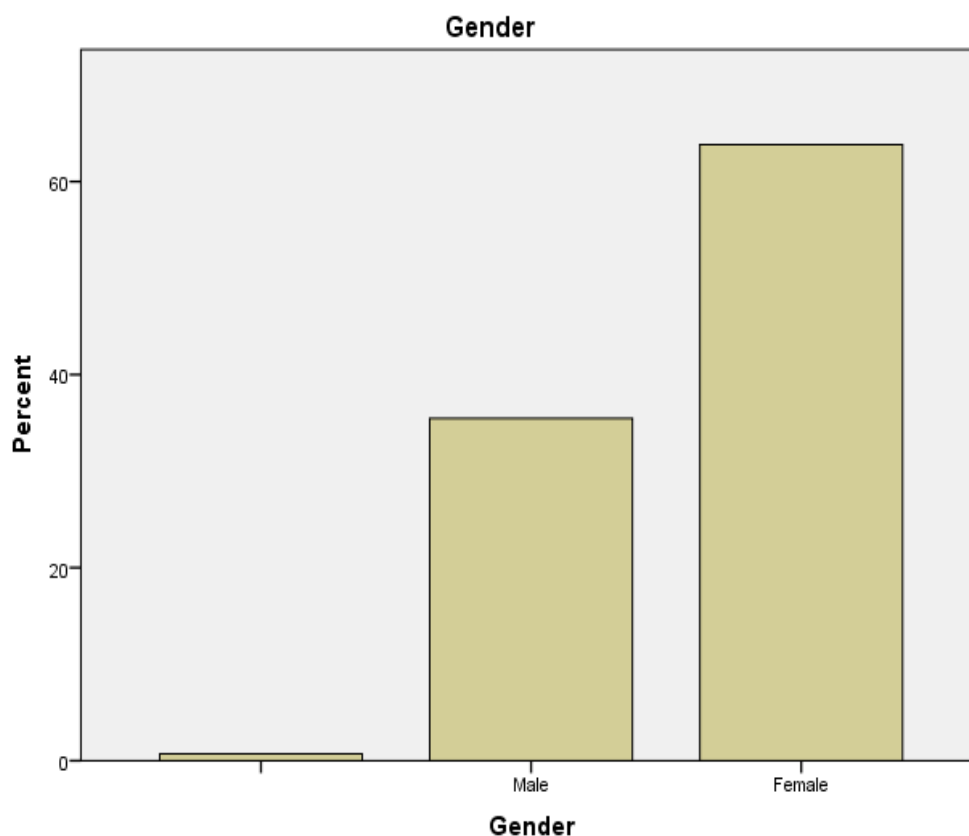


Graph 4.1: Representation of qualification of the students

Table.4.2: Gender Representation

Sr. No	Gender	Frequency	Percentage
1.	Male	50	35.5
2.	Female	90	63.8

The above table presents that 50 male and 90 female students participated in this study.

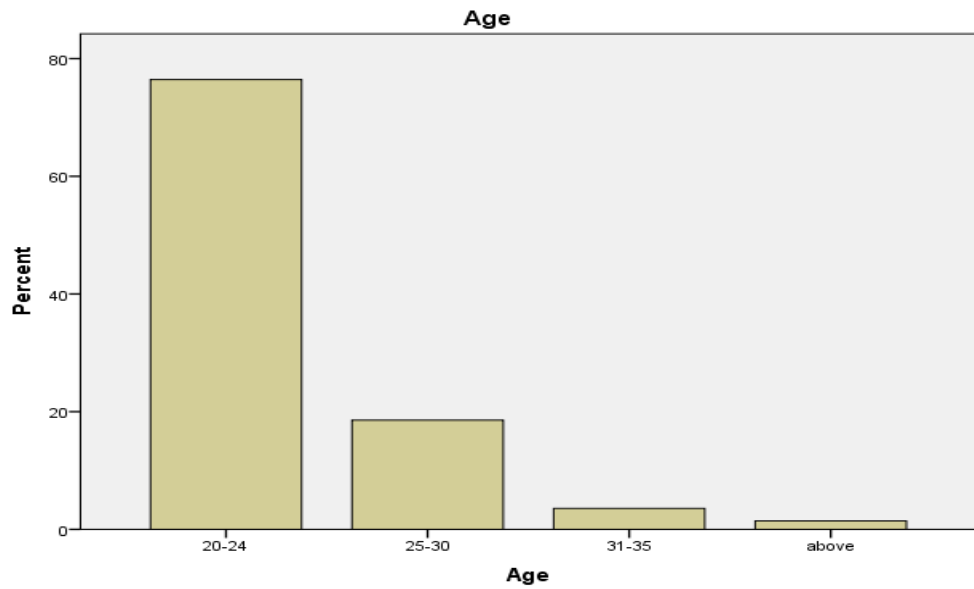


Graph 4.2: Representation of students on the basis of Gender.

Table.4.3: Age Representation

Sr.No	Age	Frequency	Percentage
1.	20-24	107	75.9
2.	25-30	26	18.4
3.	31-35	5	3.5
4.	above	2	1.4

Above table shows that 107 students from the age group of 20-24, 26 students from the age group of 25-30, 5 students from the age group of 31-35, 2 students from above 35 at university level participated in this investigation.

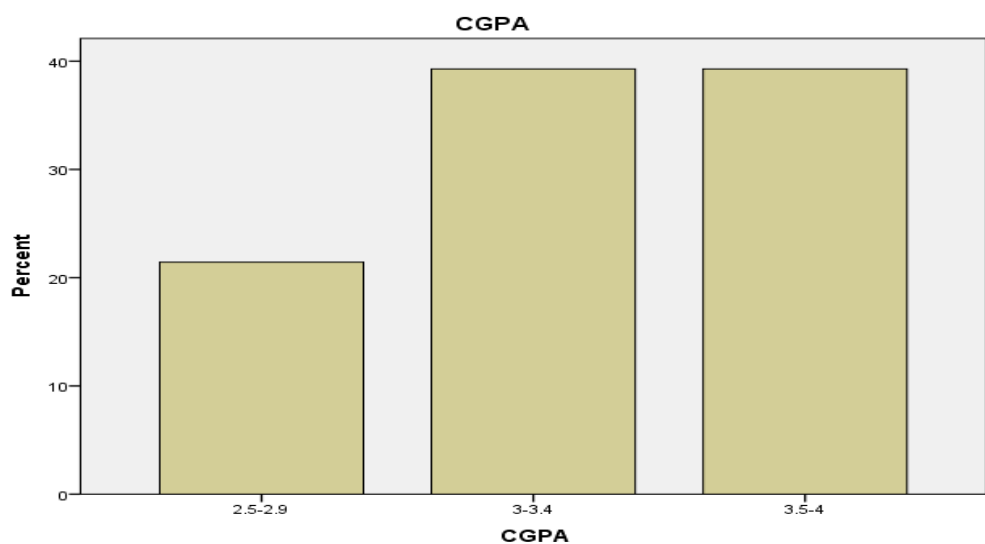


Graph 4.3: Representation of age of the students

Table.4.4: CGPA Representation

Sr.No	CGPA	Frequency	Percentage
1.	2.5-2.9	30	21.3
2.	3-3.4	55	39.0
3.	3.5-4	55	39.0

Above table presents the CGPA of students' i.e. 30 students have 2.5-2.9, 55 students have 3-3.4 and 55 students have 3.5-4 CGPA.



Graph 4.4: Representation of Grades of students

Item Wise Mean Analysis

Sr. no	Item	Mean Score
1	Use of Zoom help you in learning in pandemic	3.3286
2	Use of on-line plate-forms like Zoom, GCR and web-based learning content helped you to enhance your academic achievement in pandemic	3.1143
3	Internet facility is easily available at home	3.2357
4	Google provides massive knowledge to students through Internet in pandemic.	3.7071
5	Lack of expertise to handle digital technology like (GCR) is a barrier in academic achievement	3.3857
6	Digital technology (Zoom) made learning easy in pandemic.	3.4071
7	On-line learning using digital platforms like Zoom gives satisfaction as in-campus classroom learning	2.5929
8	Zoom, GCR, Google Meet made distance learning possible in this pandemic	3.7714
9	Zoom can be used to enhance online educational efficiency in pandemic	3.4857
10	GCR(Google Classroom) made e-assessment easy to attempt	3.4857

The means score of the items, Use of Zoom help you in learning in pandemic (3.3286); Use of on-line plate-forms like Zoom, GCR and web-based learning content helped you to enhance your academic achievement in pandemic (3.1143); Internet facility is easily available at home (3.2357); Google provides massive knowledge to students through Internet in pandemic (3.7071); Lack of expertise to handle digital technology like (GCR) is a barrier in academic achievement (3.3857); Digital technology (Zoom) made learning easy in pandemic (3.4071); On-line learning using digital platforms like Zoom gives satisfaction as in-campus classroom learning(2.5929); Zoom, GCR, Google Meet made distance learning possible in this pandemic (**3.7714**); Zoom can be used to enhance online educational efficiency in pandemic (3.4857); GCR(Google Classroom) made e-assessment easy to attempt (3.4857).

The highest mean score is Zoom, GCR, Google Meet made distance learning possible in this pandemic (**3.7714**).

Percentage Responses over Questionnaire

Sr. no	Item	SD	D	N	A	SA
1	Use of Zoom help you in learning in pandemic	13.5	4.3	31.9	35.5	14.2
2	Use of on-line plate-forms like Zoom, GCR and web-based learning content helped you to enhance your academic achievement in pandemic	11.3	19.1	23.4	37.6	7.8
3	Internet facility is easily available at home.	12.1	14.9	19.9	42.6	9.9
4	Google provides massive knowledge to students through Internet in pandemic.	3.5	7.1	19.9	53.2	15.6
5	Lack of expertise to handle digital technology like (GCR) is a barrier in academic achievement.	2.1	21.3	25.5	36.9	13.5
6	Digital technology (Zoom) made learning easy in pandemic.	6.4	13.5	22.0	48.2	9.2
7	On-line learning using digital platforms like Zoom gives satisfaction as in-campus classroom learning.	17.7	34.8	20.6	22.7	3.5
8	Zoom, GCR, Google Meet made distance learning possible in this pandemic	4.3	4.3	19.9	52.5	18.4
9	Zoom can be used to enhance online educational efficiency in pandemic	6.4	10.6	19.9	53.2	9.2
10	GCR(Google Classroom) made e-assessment easy to attempt	5.7	10.6	24.8	46.1	12.1

This table shows that most of the students agree with Use of Zoom help you in learning in pandemic (35.5%); Use of on-line plate-forms like Zoom, GCR and web-based learning content helped you to enhance your academic achievement in pandemic (37.6%); Internet facility is easily available at home (42.6%); Google provides massive knowledge to students through Internet in pandemic (53.2%); Lack of expertise to handle digital technology like (GCR) is a barrier in academic achievement (36.9%); Digital technology (Zoom) made learning easy in pandemic (48.2%). Most of the students disagree with On-line learning using digital platforms like Zoom gives satisfaction as in-

campus classroom learning(34.8%). Most of the students agree with Zoom, GCR, Google Meet made distance learning possible in this pandemic (52.5%); Zoom can be used to enhance online educational efficiency in pandemic (53.2%); GCR(Google Classroom) made e-assessment easy to attempt (46.1%).

Inferential statistics:

H₀: There is no significant effect of demographic factors (Qualification, Age) over the use of ICT and academic achievement of students at university level in pandemic 2020.

Table 4.5 (a): ANOVA for Qualification

Qualification	N	Mean	Std. Deviation
Bachelors	107	38.3364	6.83214
Masters	11	46.2727	5.55141
M. Phil	19	45.6316	5.64910
Ph.D	3	43.3333	2.08167
Total	140	40.0571	7.19889

This table shows mean and Std. Deviation of Qualification group.

Table 4.5 (b): ANOVA

Qualification	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	1364.385	3	454.795	10.593	.000
Within Groups	5839.157	136	42.935		
Total	7203.543	139			

This table shows that between qualification groups (1364.385) and within qualification groups (5839.157) are significant (.000) so that's why hypothesis is rejected.

Table 4.5 (c): POST HOC

(I) Qualification	(J) Qualification	Mean Difference (I-J)	Std. Error	Sig.
Bachelors	Masters	-7.93628*	2.07471	.000
	M. Phil	-7.29513*	1.63126	.000
	Ph.D	-4.99688	3.83574	.195
Masters	Bachelors	7.93628*	2.07471	.000
	M. Phil	.64115	2.48252	.797

	Ph.D	2.93939	4.26788	.492
M. Phil	Bachelors	7.29513*	1.63126	.000
	Masters	-.64115	2.48252	.797
	Ph.D	2.29825	4.07080	.573
Ph.D	Bachelors	4.99688	3.83574	.195
	Masters	-2.93939	4.26788	.492
	M. Phil	-2.29825	4.07080	.573

This table shows that Bachelors mean difference (-7.93628*) to Master is significant (p=0.000), Bachelor mean difference (-7.29513*) to M.phil is also significant (p=0.000) and Bachelors mean difference (-4.99688) to Ph.d is not significant (p=0.195). Master mean difference (7.93628*) to Bachelor is significant (p=0.000) and Masters mean difference (0.64115) to M.phil is not significant (0.797). Masters mean difference (2.93939) to P.hd is also not significant (0.492). M.phil mean difference (7.29513*) to Bachelor is significant (p=0.000) and M.phil mean difference (-0.64115) to Master is also not significant (0.797). M.phil mean difference (2.29825) to P.hd is also not significant (0.573). P.hd mean difference (4.99688) to Bachelor is not significant (p=0.195), P.hd mean difference (-2.93939) to Masters is not significant (p=0.492) and P.hd mean difference (-2.29825) to M.Phil is not significant (p=0.573).

Table 4.6 (a): ANOVA for Age

Age	N	Mean	Std. Deviation
20-24	107	38.8879	6.94089
25-30	26	42.5769	6.58588
31-35	5	48.6000	6.18870
above	2	48.5000	6.36396
Total	140	40.0571	7.19889

This table shows mean and standard deviation of Age.

Table 4.6 (b): ANOVA

Age	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	818.842	3	272.947	5.814	.001
Within Groups	6384.700	136	46.946		
Total	7203.543	139			

This table shows that between age groups (818.842) and within age groups (6384.700) is significant (.001), that's why hypothesis is rejected.

Table 4.6(c): POST HOC

(I) Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.
20-24	25-30	-3.68907*	1.49813	.015
	31-35	-9.71215*	3.13497	.002
	above	-9.61215	4.88998	.051
25-30	20-24	3.68907*	1.49813	.015
	31-35	-6.02308	3.34588	.074
	above	-5.92308	5.02780	.241
31-35	20-24	9.71215*	3.13497	.002
	25-30	6.02308	3.34588	.074
	above	.10000	5.73258	.986
above	20-24	9.61215	4.88998	.051
	25-30	5.92308	5.02780	.241
	31-35	-.10000	5.73258	.986

Table 4.6c shown that the age (20-24) mean difference with age (25-30) was not significant ($p=0.015$) and the age (20-24) mean difference with age (31-35) was also not significant ($p=0.002$) and the age (20-24) mean difference with age (above) was also not significant ($p=0.051$). The results shown that hypothesis was rejected.

H₀: There is no significant effect of demographic factor (Gender) over the use of ICT and academic achievement of students at university level in pandemic 2020.

Table 4.7:

	Gender	N	Mean	S.D	t	df	Sig.
Study the Relationship between Use of ICT and Academic Achievement of Students at University level in Pandemic 2020.	Male	50	38.3200	7.26872	-2.156	138	.033
	Female	90	41.0222	7.01520	-2.134	98.336	.035

Above table shows that the mean value(41.0222) of female student was greater than the mean value of male students (38.3200). It shows that the difference between male and female was significant (0.035) and it means that the hypothesis is rejected.

H₀: There is no significant relationship between use of ICT and academic achievement of students at university level in pandemic 2020.

Table 4.8:

<i>Correlations</i>			
		Use of ICT	Students' Academic Achievement
Use of ICT	Pearson Correlation	1	.075
	Sig. (2-tailed)		.382
	N	140	140
Students' Academic Achievement	Pearson Correlation	.075	1
	Sig. (2-tailed)	.382	
	N	140	140

$r = .075$ (positive correlation between two variables)

As ($\alpha = 0.05 < p = .382$) at the value of ($r = .075$) which shows that there is enough evidence to support the null hypothesis whereas the alternate hypothesis is rejected. Above table also shows that there is a positive correlation between use of ICT and students' Academic Achievement.

SUMMARY

Research was conducted to determine the relationship between use of ICT and academic achievement of students at university level in pandemic 2020. The study objectives were to examine the attitude of students regarding the use of ICT at university level in pandemic 2020; to determine the effects of demographic factors (Qualification, Gender, Age) over the use of ICT and academic achievement of students at university level in pandemic 2020; to determine the relationship between use of ICT and academic achievement of students at university level in pandemic 2020. The Population of this study consisted of all the universities of Islamabad. The sample of this study was 140 students from all the universities of Islamabad. The simple random sampling technique was used by the researchers to collect the data. Researchers used descriptive research as a research design and this study was conducted quantitatively. A self-constructed questionnaire was used to collect data from the sample. The questionnaire contained 10 items. Descriptive statistics (frequency, percentage, mean) and inferential statistics (ANOVA, t-test, Pearson r) were used for analysis.

Findings:

1. Majority of the students agree ($M = 3.35142$) with the use of ict and academic achievement of students at university level in pandemic 2020.
2. Between qualification groups (1364.385) and within qualification groups (5839.157) are significant (.000) so that's why hypothesis is rejected.

3. Between age groups (818.842) and within age groups (6384.700) is significant (.001), that's why hypothesis is rejected.
4. The mean value (41.0222) of female student was greater than the mean value of male students (38.3200). It shows that the difference between male and female was significant (0.035) and it means that the hypothesis is rejected.
5. As ($\alpha=0.05 < p = .382$) at the value of ($r = .075$) which shows that the enough evidence to support the null hypothesis whereas the alternate hypothesis is rejected. Also shows that there is a positive correlation between use of ICT and students' Academic Achievement.

DISCUSSION

Table shows that most of the students agree with Use of Zoom help you in learning in pandemic (35.5%); Use of on-line platforms like Zoom, GCR and web-based learning content helped you to enhance your academic achievement in pandemic (37.6%); Internet facility is easily available at home (42.6%); Google provides massive knowledge to students through Internet in pandemic (53.2%); Lack of expertise to handle digital technology like (GCR) is a barrier in academic achievement (36.9%); Digital technology (Zoom) made learning easy in pandemic (48.2%). Most of the students disagree with On-line learning using digital platforms like Zoom gives satisfaction as in-campus classroom learning (34.8%). Most of the students agree with Zoom, GCR, Google Meet made distance learning possible in this pandemic (52.5%); Zoom can be used to enhance online educational efficiency in pandemic (53.2%); GCR(Google Classroom) made e-assessment easy to attempt (46.1%).

CONCLUSION:

First conclusion was measured by Descriptive statistics and it was concluded that there was a positive and encouraging attitude of students regarding the use of ICT at university level in pandemic 2020, which is important for students for their academic achievement.

The second conclusion is based on second objective and it is concluded that there is a significant effect of demographic factors (gender, age, qualification) over the perception of students regarding the use of ICT and Academic Achievement.

The third conclusion is based on third objective and it is concluded that there is no significant relationship between the use of ICT and students' academic achievement. There is a positive correlation between use of ICT and students' Academic Achievement.

RECOMMENDATIONS

1. Every institution needs to provide technological resources for the students and the teachers so that the teaching learning activities will be conducted effectively.
2. Trainings need be given to the teachers and students regarding the ICT use.
3. Teachers and students need to have expertise to use relevant technological resources in teaching learning process.

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