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Covid-19 Pandemic In The Context Of Universities' Performance In Khyber Pakhtunkhwa

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Abstract

Universities during unforeseen and unavoidable COVID-19 pandemic situation encountered a change in the shape of paradigm shift. The pandemic brought a shift from conventional approach of teaching and learning to online mode of education to reduce disruption of academic activities. This study makes an academic strive in comparative nature to present evaluation of how unexpected, sudden and bound to happen change in the influence of paradigm shift affected the public and private universities in less privileged regions of KP. This research compares the universities' performance of both public and private sectors in the aftermath of COVID-19 pandemic in Khyber Pakhtunkhwa (KP). The study thoroughly investigates the instructional capability of teachers, students' ability to undertake online classes, availability and management of technical and technological facilities at universities, required syllabus provision, assessment and appraisal of teaching methods, teachers monitoring measures, and support by government in terms of financial allocation. The study also suggests suitable and improved measures for any such abrupt and unavoidable future situation of switching to hybrid or online education in a befitting manner.

Keywords: COVID-19 pandemic, unforeseen change, paradigm shift, online education, technological support, university performance

Statement Of The Problem

The effect of COVID-19 pandemic on higher education all over the world has lead the universities to near-total closures. Public and private universities' closure adversely affected the students, teachers, and other employees. Similarly, it triggered acute and immense economic, social, and educational repercussions. Universities' closure as a result to the pandemic observed a paradigm shift and has necessitated the use of online mode of education that public and private universities can utilize to engage students online and reduce the impediment and disruption of education.

Introduction

In the month of December 2019, a disease named as COVID-19 or Corona virus gushed in Wuhan city which is part of Hubei Province in China. It was identified as a pneumonia the origin of which was not known (Qu et al., 2020). Later on, the international committee on taxonomy of viruses (ICTV) explored that the essence of COVID-19 was a unique corona virus termed as severe acute respiratory syndrome corona-virus-2 (SARS-CoV-2) (*Reflecting the Corona-virus Disease (COVID-19) and the Virus that causes It*, n.d.). COVID-

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19 with in no time expanded like a disaster across the globe. The severity and legality of this disease rendered the World Health Organization (WHO) to declare it a pandemic on March 12, 2020 (*Corona-virus Disease (COVID-19) Pandemic*, n.d.) . As per latest statistics of November, 2023 more than 762,516,624 cases have been confirmed and more than 6,893,807 deaths have so far occurred due to COVID-19. This data shows that the pandemic is the worst and fatal disease of history (*WHO Coronavirus (COVID-19) Dashboard | WHO Coronavirus (COVID-19) Dashboard With Vaccination Data*, n.d.) . COVID-19 pandemic being devastating in nature not only brought a halt to business and government organizations but also severely affected education sector all over the World (Nicola et al., 2020) . Due to cessation of educational and academic activities that too in 192 countries made an effect on more than 1.7 billion students (*Education: From Disruption to Recovery | UNESCO*, n.d.) . The academic institutions around the globe with an intent to counter and lower the spread of pandemic either cancelled or decreased the on campus activities. These drastic and inevitable crucial steps led to awful educational implications on learners (Esposito & Principi, 2020) . Conventional approach of education being futile in such situation compelled educational institutions to switch to online education by utilizing various gadgets and platforms of information technology (Bozkurt & Sharma, Ramesh, 2020).

In the modern era where technology is advancing at a cutting edge, the importance of change cannot be ruled out. The purpose of change is an adaption to new conditions or to bring enhancement in working performance. Val and Fuentes (2003) argue that change to organization is a pragmatic reflection in view of organizational perspective of alterations and modifications in spatial, temporal and qualitative dimensions. The authors state that change begins in small scope with evolutionary shape and turns into higher and strategic form. Evolutionary change is incremental or first order change, meant to improve present situation by altering certain small aspects. Whereas strategic change is transformational, revolutionary or second order change. Kiefer (2005) has defined change as alterations to an organization's structure, its processes and social system which may include fundamental transformation, mergers, layoffs, restructuring etc and result in prompting new behaviors and stirring emotions in employees and managers.

Literature Review

In the light of above arguments, it is evident that the sector of education embraced a change that is termed as paradigm shift. The unexpected and inevitable deadly disease which was

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dreadful in its occurrence introduced a shift in face-to-face educational approach of teaching and learning in educational institutions. This situation resulted in a gigantic shift in education sphere. Due to stoppage in conventional way of conducting educational activities in education establishments, a paradigm shift to online stream of imparting education to academics at undergraduate and graduate stage suited the requirement (Sahu, 2020) . This approach of continuation of educational activities counter the threshold of pandemic by minimizing the student to teacher or student to student contact. (Yamin, 2020). Considine and Zappala (2002) observed that results which refer to the academic performance of the pupil in their tests and examinations are effected by the medium of instructions in educational institutions.

Miller and Birck (2007) summed up that academic performance is termed as academic accomplishment or academic success in the examination. Academic performance is a manifestation of amalgamation of knowledge and skills obtained with the help of course programs and curriculum. The same are measured and evaluated from test results granted by the teachers of different courses (Adediwura & Tayo, 2007; Kimani et al., 2013). COVID-19 imposed severe effect on academic performance of learners in higher education. When the students are just restricted to their homes, they often face challenges of environment, self-discipline, and adequate relevant studying materials. The considerable opportunity gap is the inadequate and unjust access to technological tools and internet. Such tools are highly imperative and critical to seeking education through online means. The pandemic situation triggered access and opportunity differences that developed tough time and hardship for financially weak rural background students relative to their economically stable urban fellows (Pitt, 2015). About same aspect, (Gonzalez et al., 2020) emphasized the effects of COVID-19 confinement on HEIs students' independent academic performance, particularly in the University "Autónoma de Madrid". It was noticed that confinement had positive effects on the academic performance of students and they improved learning strategies through making exciting routine and leading towards efficiency and productivity.

In the same context, (Adnan, 2020) initiated a research concerning the conduct and behaviour of students of a college during the occurrence of COVID-19 in Pakistan. From the reference of students, it is highlighted that Pakistan which is a developing country having nonavailability or little access to internet facility mostly in rural areas and up to certain extent in urban regions, online learning might not have produced academic performance as was

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expected. (Demuyakor, 2020) observed the satisfaction level of international students of Ghana in HEIs of China. It had been concluded that despite the fact of affording high fees against slow internet and its steady connectivity, majority of the students exhibited encouraging behavior as far as online learning is concerned.

(Haider & Al-Salman, 2020) studied on the psychosomatic effect of technological tools on the health of Jordanian university students during COVID-19 online education. The results showed that 59.5% of students reflected significant enhancement of their academic accomplishment through conventional way of learning, and 55.5% of them accentuated that a proportion of online tasks resulted into misinterpretation, confusion, hindrance, and abysmal performance. Similarly, (Elhadary et al., 2020) carried out a study on the effects of COVID-19 on scholars of social sciences discipline in the state of Turkey. It was observed that teachers and students remained satisfied with online education.

A survey was performed on public and private universities in Malaysia (Chong et al., 2014). The research revealed that private universities were comparatively effective with a willingness to share knowledge through utilization of relevant technological gadgets and academic paraphernalia. The public sector universities which are around more than 110 in Pakistan work under government's auspices. Whereas, on parallel, private universities have also increased exponentially in last two decade and as of now, there are around 75 private sector universities in the country (*Ministry of Education, and Pakistan Economic Survey - Google Search*, n.d.) . To control and overcome the COVID-19 difficulties, the Higher Education Commission (HEC) in Pakistan struck a preparedness plan. The plan included the points i.e, (1. University Readiness, 2. Faculty Readiness, 3. Course Readiness, 4. Library Readiness, 5. Technology Readiness, 6. Student Readiness) with an aim to guide the academic institutions for suitable and efficient conduct of online education along with the smooth persistence of academic pursuits. (*Hec Covid-19 Policy Papers Policy Guidance Note 5: Online Readiness - Google Search*, n.d.) With an aim to maintain a standard, HEC has formed benchmark for all educational programs, for example, lesson planning, course standard, scope and duration, and the methods of evaluation. In the private higher education (PHE) sector, it is evident that the effect of pandemic remains lethal due to limited resource base and capacity to withstand the impact of a disaster of such magnitude.

Khyber Pakhtunkhwa (KP), situated in north of the country, is a less developed and crisis-stricken province of Pakistan. KP province is consisted of almost 10 percent of the state land

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and this province accommodates 13 percent of the overall population of the country. Around 83 percent of the population in this province is rural with a literacy rate low at 49 percent. Whereas the ratio of unemployment is around 8.5 percent. The dilemma of KP's relative compromised performance has reasons of less growth, social and economic underdevelopment, and scarcity of health and education facilities as compared to other provincial units of the country (Khan & Hussain, 2020) . This reality provides a context where public and private sector universities in KP remain less privileged in terms of equipment, infrastructure and technological facilities. The financial budget requirement in order to run the academic routine and other day to day operations is not a big deal for public sector universities as the same is covered by the government. However, in private higher education institutes, handling operations and managing salaries of employees is a very difficult and troubled task (Khan, Aajiz and Ali, 2018). Differences were found between public and private sector universities differ in many ways such as decision making methods and establishments. It is indicative of the outputs that public sector universities take independent decisions as compared to private universities where the administrators rely on the decisions of the head or owner of the institute (Berardi & Blackmore, 2006; Naz, 2013). In the context of policies for Human resource management, appraisal system, financial allocation and performance groups, public universities are more robust and effective with regard to private universities (Juliussen, Karlsson & Gärling, 2005).

The study invites a comparative academic endeavor to provide analysis of how unforeseen and inevitable change in the shape of paradigm shift affects the public and private universities in unprivileged areas of KP. There is a gap of elaborate research that may investigate the difference of effect of COVID-19 on public and private higher education institutes' performance in KP. According to (Qureshi, Kholaand & Michael, 2012), there is very limited research on assessing the acquisition and merger of technology in education at both public and private sector universities in Pakistan. It is necessary to analyze the difference of effects of disruption of academic activities in higher education institutes during complete closure due to pandemic and assess the readiness of public and private universities to address paradigm shift. Moreover, comparative assessment of willingness and competence of students and teachers to undertake online education and students' academic achievement from the online education in the pandemic entails serious endeavor. Similarly, support of government to both public and private sector higher education institutes in the advent of pandemic needs

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to be analyzed.

In the light of above-mentioned literature review and the situation of online education on account of COVID-19 pandemic, it is crucial and imperative to assess the comparative effect of online education on public and private universities' performance in Khyber Pakhtunkhwa and recommend suitable measures for any such abrupt and unavoidable situation of switching to hybrid or online education in a befitting manner.

Statement Of The Problem

The effect of COVID-19 pandemic on higher education all over the world has lead the universities to near-total closures. Public and private universities' closure adversely affected the students, teachers, and other employees. Similarly, it triggered acute and immense economic, social, and educational repercussions. Universities' closure as a result to the pandemic observed a paradigm shift and has necessitated the use of online mode of education that public and private universities can utilize to engage students online and reduce the impediment and disruption of education. This study makes a comparison of public and private sector universities' performance in the wake of COVID-19 pandemic in KP in terms of pedagogy (instructional domain), technical and technological facilities management, syllabus facilities, assessment and appraisal methods, teachers monitoring measures, and financial allocation by government.

Research Question

1. How did HEIs perform in the advent of COVID-19 pandemic?

Objectives Of The Study

Following are the objectives of the study: -

1. To assess the readiness of universities in terms of digital skills and technical infrastructure.
2. To evaluate technological competence of students and teachers to pursue online education in the pandemic in KP.
3. To examine knowledge and skill development of students and teachers in HEIs from online teaching and examination.
4. How much government supported the HEIs in KP during pandemic.
5. To contribute theoretically on performance in less privileged workplaces.

Significance Of The Study

The study stands significant with the reason of highlighting the variation of performance of

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public and private higher education institutions. The performance of the institutions will be gauged through assessing the readiness of digital skills and technical infrastructure. The same will also be measured through assessing the willingness and technological competence of students and teachers for undertaking online education along with analysis of students' achievement in the realm of knowledge and skills. The extent of difference of government support to both sector institutes' will also be analyzed to ascertain contribution towards institutes' performance. The study will add theoretically in terms of effects of abrupt change and paradigm shift in the institutions in unprivileged areas and its effects on universities performance. Practically, it will be beneficial for teachers, students, and administration to revamp the measures for making future hybrid and online education more effective in both education sectors.

Methodology

Khyber Pakhtunkhwa has 34 public sector universities and around 13 private sector universities. A total of 47 KP Universities provide sufficient platform for exhaustive research with an emphasis on unprivileged workplaces in the province. A total of 06 universities (03 public, 03 private) from three zones ie, Peshawar, Hazara and Kohat were taken as focus of the studies.

Qualitative study was carried out to explore multiple realities for the phenomenon of COVID-19 and focused on the way people interpreted and made sense of their experiences. Semi structured interviews were conducted as this method is effective for data collection which is open-ended and allows to investigate participant's considerations, concerns and beliefs about the specific theme. In this study undergraduate students of 5th semester onward and teachers of maximum load (lecturers and assistant professors) from 06 universities both public and private were interviewed. A total of 23 teachers and 32 students were interviewed from 03 public and 03 private universities.

To identify and select information rich cases, purposive sampling was carried out. This sampling enabled the researcher to extract pertinent information from the collected data and expressed overall major bearing of findings on the population.

Discussion

Switching to online education in the wake of COVID-19 pandemic remained a great challenge for higher education institutions. The study undertakes variation of public and private sector universities in terms of factors that effects students' and teachers' acceptance,

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willingness and competence to go for online teaching and learning and its effect on students' academic performance during the quarantine period on account of COVID-19. Qualitative results depicted that face-to-face instructions over online education were preferred towards the learning delivery method. The results of online learning transition highlighted that online learning was an unpleasant experience and the students expressed a negative attitude towards online learning, grading it to be comparatively difficult. They also expressed the scarcity of supporting resources (access to the internet, full time electricity availability, library, interaction with professors, labs facility, peer discussion etc.) was an important challenge during the switch to online education.

Even though this inclination has similarity to findings in previous literature (Bali & Liu, 2018; Tichavsky et al., 2015), yet comparison of this experience is different due to the current circumstances and a drastic sudden change in delivery routine of education. Students are having an emergency online delivery method, but not necessarily an appropriately planned online instruction (Daniel, 2020; Shahriar et al., 2022). Therefore, for future perspective and effective employment of online learning, it is imperative to clearly explain to all stake holders that include the students, faculty members, and staff of the universities that the experience during COVID-19 remained a nascent retort to a global crisis and it may not reflect the thoroughly premeditated field of online education.

The findings of this study shows online education remained a motivating factor for students. In the qualitative data, students reported that the lack of interaction with professors and students was a challenge for them. When there is an emergency and students cannot choose the delivery method of their preference and have to pursue online or hybrid approaches, motivation aspect must be taken into consideration by the teachers. As (Bower, 2019) mentioned, "In technology-mediated learning contexts, agentic intentions reside with humans, and not with technology" (p. 1037). Although, the students and teachers showed motivation to undertake online learning and teaching instead of disbanding it, elements of negative sentiments like fear, depression, and anxiety prevailed due to severe fear of deadly disease. Anxiety negatively impacts motivation and hinders sense of accomplishment, whereas, spitefulness leads towards attainment of intrinsic motivation, studying drive, and accomplishment (Heckel & Ringeisen, 2019).

This study validates that during the COVID-19 pandemic, teachers and students both utilized diverse platforms and online learning gadgets as compared to past. As (Croft et al.,

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2010) mentioned, the utilization of emergency online suites enhanced students' repository of knowledge about use of technological devices. The acquisition of education and experience might assist students to gain expertise, future abilities and self-efficacy in regard with online educational skills and converting to hybrid mode of education.

In online education, teachers have been obligated to improve teaching material, efficiency in online delivery, effectively using multimedia supported material and software related to educational technologies (Ali, 2020; Wang et al., 2013). Such a scenario compels teachers and students to bring in diversity and improvement in online environment. The findings highlight that pupils having less experience of using scholastic technologies tend to have a low insight of self-efficacy hence leading to depleted cognitive engagement.

During COVID-19, teachers and students had to promptly shift to the online system without any preparation and availability of technical infrastructure, and this research confirms that the self-efficacy along with cognitive engagement of students declined.

The important role in acceptance and productive use of online education is self-efficacy. This research validates the study of previous literature, mentioning that those pupils who have been applying diverse self-regulated schemes are liable to fulfil their academic responsibilities and tasks (Abdullah & Ward, 2016; Alghamdi et al., 2020). Conviction in self-efficacy has a profound affect on choice of task, endeavour, preservation, flexibility, accomplishment and has a direct relation to academic opportunity and performance (Alghamdi et al., 2020; Heckel & Ringeisen, 2019). While offering online teaching and learning due to emergency situation, the students are to foster trust in their own capabilities and capacities to handle new unavoidable situations.

Outcomes regarding performance of students differ on the basis of design, purpose and objectives of the study along with applying strategies to impart education effectively. For example, (González-Sanguino et al., 2020) found improvement in performance of students during the pandemic confinement while matched in two academic years. The teachers also adopted a lenient approach in paper checking and awarded good marks to the students as a whole. In contrast to what (González-Sanguino et al., 2020) highlighted, the current research depicts that cognitive engagement in students that include knowledge, attentiveness, attendance, and interest lessened after getting quarantined on account of COVID-19 pandemic. Similarly, a negative effect on skill improvement has also been observed. The studies were very different, but more research is needed to have an accurate sense of the

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impact of confinement measures over students' performance. The universities got effected in terms of skill development of the students. However, the grades of students improved.

During the COVID-19 pandemic, by bringing a shift to online systems, the students were motivated to continue online education instead of bringing gap in education by quitting semesters and lagging. Nevertheless, a decrease in the proficiency to accomplish academic activities, self-efficacy and cognitive engagement were reported. Furthermore, the qualitative data remained reflective of the students' perception that the quality of education declined in both public and private educational institutes. Due to less readiness of IT facilities' availability, inadequate training of students and teachers to undertake online education, internet bandwidth issues, irregular power outages, less effective online teaching methodologies, less skill development and fear of unknown factors triggered a negative attitude by teachers and students towards online education. This attitude impacted negatively their knowledge enrichment and educational improvement.

Conclusion

Following conclusions are underpinned based on findings and discussion:

1. It was extracted from the research that all the students and teachers of public and private sector universities realized the significance of the education even in severe critical situation like COVID-19 pandemic. During the pandemic, the students and teachers remained fully involved in education activities.
2. Teachers and students needed IT training to handle any such untoward situation and to effectively utilize the available technological gadgets and software to make online education productive and outcome oriented.
3. Based on interviews with the students and teachers of the public and private sector universities, conclusion was drawn that secure, safe and peaceful environment is essential both for the students and teachers. Without a safe and peaceful environment where the students and teachers are free from any distraction and stress, the education activity cannot take place in true perspective.
4. The motivation level of the students and teachers towards study remained intact as no one was of the opinion to disband the institutions for unknown time frame which would result in loss for the students and teachers both.
5. It was also concluded that students' performance was not affected in terms of results as the students scored well in both public and private sector institutions. However, no skill

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development of students took place during the period of pandemic.

6. The study evaluated the important role of environmental variables on the academic performance of university students who took online classes during the COVID-19 pandemic. These variables influence students' academic performance, attention, and ease. As a result, their academic scores and learning activity can be influenced and their motivation may be impacted. An academic area layout in which environmental variables are rough, less comfortable, and uncontrollable tend to undesirably influence academic performance of university students. Hence, in normal circumstances, i.e., comfortable educational environment must be provided for conduct of classes to foster students' motivation and increase their commitment to educational progression.

Recommendations

Following recommendations are put forward based on findings and conclusions of the research study for teachers' and students' adoption, use, and acceptance of technology during online education are as follows:

1. A comprehensive framework is required to be chalked out by both public and private sector universities to introduce hybrid education that should be based on face-to-face and online streams of education for the courses which don't require lab work and practical aspects.
2. Special courses may be scheduled for the students whose skill development was compromised during the COVID-19 pandemic and require special attention as such lack may be counterproductive for them in future.
3. Special arrangements may be made by the universities and HED/HEC for supporting the students who are incapable of meeting their financial needs and IT gadgets to continue education in the emergency situation like COVID-19 pandemic.
4. In order to meet the special requirement during crisis/emergency situation while running skill development courses/programs are not possible, special courses with emphasis on theoretical knowledge may be dough tailed.
5. Teachers may be further motivated to chalk out strategies to engage students in online academic activities and to give them assignments and online tasks which are more knowledge and outcome oriented.
6. During online education, self-regulation skills are necessary for students to cope up with their learning process along with adoption of improved measures by the teachers to produce better results. Teachers must guide the students that while a paradigm shift is

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inevitable, they are supposed to rely on their capabilities of being successful and reflect on their learning processes for improvement.

Future Research

Below mentioned are the few gaps of the research for assistance in future studies:-

1. The response of students and teachers shows that there is an apparent relation of the pandemic situation with the behaviour of students. It requires to be further studied by the specialists of the subject area to determine the effect of COVID-19 pandemic on the behaviour of the students to devise ways to diminish the negative effect of such crisis situations in future.
2. It is imperative to understand how COVID-19 affected teachers' teaching styles and other strategies. The teachers' experience may also be interconnected with the students' learning experiences. Faculty, administrators, and students faced different challenges during the pandemic that may have had repercussions in the teaching and learning processes.
3. Another important future direction is to explore how online learning may be implemented in a hybrid way along with face to face education. Such hybrid education would bring ease for the universities to effectively and promptly switch to complete online education in crisis situation in future.

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