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The Effects of COVID-19 on Tertiary Institutions in Ghana: The Case of the Ghana Institute of Management and Public Administration (GIMPA)

Kingsley Senyo Agomor[1], Redeemer Krah[2], Asante William[3], Linda Jones[4]

[1]School of Public Service and Governance (SPSG), Ghana Institute of Management and Public Administration (GIMPA), Accra, Ghana

[2]Department of Accounting, University of Professional Studies, Accra, Ghana

[3]Department of Public Policy and Management, SD Dombo University of Business and Integrated Development Studies, Wa, Ghana

[4]Law School, Ghana Institute of Management and Public Administration (GIMPA), Accra, Ghana

Email address:

ksagomor@gmail.com (Kingsley Senyo Agomor), dornkra@yahoo.com (Redeemer Krah), wkasante2@gmail.com (Asante William),
ljones@gimpa.edu.gh (Linda Jones)

Abstract: The outbreak of COVID-19 pandemic posed a serious threat to tertiary institutions in many countries including Ghana. Tertiary institutions in Ghana had to cooperate and adhere to and execute the measures announced by the government as the institutions migrate teaching from the physical classroom to online platforms. This study examines how Ghana Institute of Management and Public Administration (GIMPA) as a public university responded to the COVID-19 pandemic to remain a financially self-sustaining public university in Ghana and Africa. It seeks to analyze the emerging evidence of the effects of COVID-19 pandemic on higher education from two angles; the effect on student learning and the effect on the management of tertiary education in Ghana. It assesses the policy responses of COVID-19 pandemic on GIMPA as a tertiary Institution and their key client who are students, identified and examined the challenges in managing the COVID-19 pandemic; and provided alternative measures to enhance management of crisis in tertiary institution using GIMPA as a case study. The study employed qualitative research design and obtained primary data through semi-structured 25 purposively selected interviews and observation. The analysis of data was guided by transformative learning theory. The study identified three broad categories of effect on the institution and the staff. These included institutional and governance effects, economic and financial effects and social and inter-relational effects. In the case of the students, they were affected in various ways covering learning, social interaction, physical health and exercise, mental health, transition to online platforms, limited access to internet and finances. The study recommended that GIMPA should invest against any future pandemic and introduce students to e-learning platforms to supplement classroom teaching and learning.

Keywords: COVID-19, Effects, GIMPA, Management, Pandemic, Student Learning and Performance

1. Introduction

The global impact of the Coronavirus Disease 2019 (COVID-19) pandemic has become the major concern for leaders, organisations and societies. The outbreak of this infectious disease affected all aspects of human life including education, business, health systems, the economy, social interactions, politics and governance [67, 55]. Although the intensity of the spread has reduced significantly, the aftermath effects still linger, and the world has been stressful for everyone. In sectors such as education, the pandemic significantly triggered a shift in modes of delivery and assessment of students across the globe due to the temporary closure of schools and educational institutions. Global estimates show that close to 200 million learners (students)

were affected by the pandemic, this has posed a huge challenge and concern among policymakers and managers of educational institutions to develop innovative approaches to deliver education [63, 66]. Almost all countries experienced changes in education, especially in the approach to delivering lessons [43]. The effect of the closure of schools during the pandemic was beyond students, teachers, and families, it had societal and economic consequences [41].

The outbreak of COVID-19 posed a significant challenge to tertiary institutions in developing countries including Ghana. Most of the tertiary institutions were not structurally and financially prepared for the COVID-19 outbreak in Ghana. Hence many of these institutions were affected by the imposition of restrictions on movement, the closure of schools, and the need to comply with COVID-19 protocols such as the personal protection equipment (PPEs) for their staff among others. Tertiary institutions in the country had to cooperate and adhere to and execute the measures announced by the government. Tertiary institutions in Ghana had to migrate teaching from the physical classroom to online platforms, albeit with significant challenges such as low technological infrastructure. Beyond the introduction of e-learning platforms as a preventive measure against the spread of the virus, the management of universities in Ghana needed to put in place other health and safety measures. To mitigate the risk and effect of COVID-19, government and tertiary education institutions developed plans and policies in the short and long term [11, 14]. Most of the studies conducted on the effect of COVID-19 on tertiary education focused on student learning, very little focus has been placed on the strategic role of management of these institutions. For example, Jamerson, Josh, and Joshua [34] dealt with issues of student debt, Owusu-Fordjour, Koomson, and Hanson [56] looked at the impact of the pandemic on earning from the perspective of the Ghanaian students, Cecco [15] on food insecurity, Dhawan [24] identified digital learning, Angrist, Djankov, Goldberg, and Patrinos [23] observed that in sub-Saharan Africa, the majority of educational institutions have a very low learning base.

This study investigated how state-owned tertiary institutions reacted to the corona virus epidemic in Ghana using the Ghana Institute of Management and Public Administration (GIMPA) as a case study. The Government of Ghana (GoG) and the United Nations (UN) through a special fund project to train public administrators in West Africa established the GIMPA in 1961. This study seeks to analyze the emerging evidence of the effect of the corona virus epidemic on tertiary institutions from two angles. The first angle focuses on the effects on student learning whereas the second touches on the effects on the management of tertiary education in Ghana. This study reports how GIMPA reacted to the corona virus epidemic to remain a self-financing public tertiary institution. The study contributes to the outlook of how the corona virus-triggered interruption acted as a catalyst for changes in the short and medium-terms in the delivery of education. It assessed the policy responses of COVID-19 on GIMPA as a tertiary Institution and their key client who are students, identified and examined the

challenges in managing the COVID-19 pandemic; and provided alternative measures to enhance management of crisis in tertiary institution drawing relevant lessons from GIMPA. The structure of this study includes a review of the relevant literature, a detailed description of the methodology used, presentation of the results, discussion of findings and their implications, and a conclusion that includes policy recommendations.

2. Theoretical and Empirical Literature

This section discusses theoretical underpinning and empirical literature review of the study.

2.1. The Theory of Transformative Learning

This study adopts the transformative learning theory as an analytical framework. Advocates of the theory of transformative learning argue that this type of learning entails bringing about a shift in one's existing framework of understanding. [46, 47, 19, 20]. This frame of reference involves a systematic body of experience through structures which carefully shape and define expectations, perceptions, cognition and feelings [46]. Transformative learning otherwise known as transformational learning suggests that learners can adapt their thinking based on new information or experience. Furthermore, transformative learning may refer to the effort of adapting to a changing situation. The theory of transformative learning is considered suitable for this study as it allows for an evaluation of the students' experiences of teaching and learning during a sudden transformation. In this instance, the corona virus epidemic created disruption in the educational system worldwide and caused transformations in tertiary institutions like GIMPA.

The transformative learning theory emphasizes the learning experiences of a person in a particular context. It could be deduced that when students go through a learning experience, their frame of reference is transformed. Proponents argue that frame of reference consist of two (2) dimensions, thus habits of mind and point of view [46, 20]. The habits of mind refer to the customary patterns of thinking or feeling that are shaped by a particular set of codes, which could be cultural, social, educational, economic, political, or psychological. These patterns may be expressed through a particular perspective.. A point of view on the other hand is the judgments, beliefs and attitudes that one has towards a group or a person. Transformative learning occurs when learners interact with their learning contexts and processes. This is expected to empower them to see the social world differently so that as agents of change they can challenge the status quo. To further boost students learning during interruptions triggered by global catastrophes like the corona virus, instructors are expected to adopt useful techniques and divert the process of learning to novel standards. This will require education managers to be creative and innovative in the learning process [53]. This transformation will then empower learners to take charge and be innovative as well. It is observed that COVID-19 interrupted teaching and learning

in GIMPA, however, it also provided opportunity for innovation. The transformative learning theory is therefore robust to unpack these issues.

2.2. The Effects of the COVID-19 Pandemic on Higher Education: A Global Perspective

The discussion here focuses on how the COVID-19 epidemic has affected Higher Educational Institutions (HEIs) globally. Specifically the extant literature centers on the effects of the epidemic on teaching, learning and assessment [28, 22, 2, 42, 40, 58]. The encouragement of physical distancing and lockdowns to tone down the spread of the corona virus epidemic brought in its wake a major disruption in the educational sector. This therefore resulted in switching from the in-person mode of education to the online/emergency remote mode [27, 10, 2, 57, 13, 63]. Earlier writers have acknowledged that whereas emergency remote teaching may be a temporary response to a pandemic like COVID-19, the online mode on the other hand involves careful arrangements to create an effective learning ecosystem [28, 13]. It is worthy to note that teaching and learning in the midst of the epidemic can be analyzed through the prism of opportunities and challenges [36, 10]. The ensuing discussions turn attention to these two important issues i.e. opportunities and challenges faced by HEIs in the midst of the epidemic.

The opportunities presented by the outbreak of the epidemic in spite of the challenges are worth considering. This is because COVID-19 opened avenues for teachers to teach and students to study without restrictions to time and location. This was made possible through digital technology which became a very important aspect of the teaching and learning experience [27, 53, 40]. As a matter of fact, the unexpected migration of teaching and learning to these digital learning platforms have contributed to building the capacity of both instructors and learners. Both teachers and students have acquired the skills in the use of new tools and systems to sustain education. It has also presented a rare opportunity to tertiary education teachers most especially to re-ensvision and re-imagine teaching [51, 42, 26, 64]. Scholars have observed that the pandemic fostered a significant connection between educators and parents, which should be nurtured as it has the potential to positively shape education in the future. Additionally, the COVID-19 crisis presented ample opportunities for collaboration, innovative problem-solving, a receptiveness to learn from others, and an eagerness to experiment with new tools to enhance online teaching and learning, which is deemed to be cost-effective compared to that of the in-person mode. Another important issue is the readily available and easily accessible online teaching experts that can be connected to [36, 37, 57, 28, 26]. The available literature indicates a general consensus on the efficacy of online teaching and learning, provided that all students have equal access to necessary resources and lectures [53, 39, 38].

However, it also recognizes the substantial challenges posed by the COVID-19 pandemic to higher education institutions (HEIs). Moreover, studies suggest that online education may not be as effective as in-person learning due to a lack of engagement and practical components in the sessions [53, 61, 65, 1]. Others have observed that insufficient resources, lack of students self-discipline, technical issues and policy-related issues were some of the main obstacles that worked against the smooth rolling out of the online learning during the epidemic [49, 6, 9, 24, 18]. Furthermore, whereas some writers identified lack of policy guidelines, linguistic skills, lack of infrastructure and resources [39, 53, 59, 38] others like Ardan and his colleagues [9] in their study in Indonesia found out that the students were spiritually and psychologically impacted by the COVID-19 pandemic coupled with some levels of anxiety. One would not be wrong to suggest that COVID-19 has posed the greatest challenge to the global education system in contemporary times because of its urgency and the lack of preparedness by educational stakeholders [22, 35, 3]. Instructors for instance were faced with the challenge of their capacity to adapt to the sudden switch from in-person to emergency online teaching due to the epidemic [8, 16, 48]. Supported by previous studies, Almazova et al. [8] found in the Russian higher education system that instructors' readiness for online teaching and learning, as well as their level of computer literacy, were significant barriers to the sudden shift to online teaching. In Trinidad and Tobago, Kalloo et al. [35] and Khan and Abid [37] also discovered that teachers faced challenges in converting existing in-person teaching materials into online formats during the pandemic, emphasizing the urgent need for rapid training. Students on their part went through a number of challenges as well, consisting of lack of self-discipline, organizational and planning skills, lack of motivation, focus and limited attention span in addition to psycho-social elements [36, 8, 51, 17].

In addition, students from low-income countries experienced social inequalities such as inadequate access to resources, books, and other materials. These challenges heightened the fear and anxiety that accompanied the pandemic, thereby jeopardizing the mental health of many students [36, 40, 57, 7, 45]. On a whole, whether the focus is on students or teachers, the sudden switch from in-person to emergency online teaching and learning has brought in its wake challenges facing HEIs, particularly in low-earning settings where there is little to no information technology infrastructure. Although the literature on education and educational systems has extensively addressed the impact of COVID-19, few empirical studies have specifically investigated the effects of managing finances of HEIs as a result of COVID-19, the quality of emergency remote learning, or the influence of COVID-19 on learning outcomes.

2.3. The Effects of the COVID-19 Pandemic on Tertiary Education in Ghana and Africa

This subsection discusses the effects of the COVID-19 Pandemic on HEIs in Ghana and Africa generally. The existing body of knowledge reveals that limited empirical studies have been conducted in Africa. The breakdown of this by sub-regional categories include van Schalkwyk [62], Menon and Motala [44] and Hedding et al. [32] from South Africa, Agaba [4] and Tamrat [60] from East Africa and

Owusu-Fordjour [56], Doumbia et al. [25], Agormedah et al. [5], Jacob et al. [33], Omeluzor et al. [54] and ESSA [28] from West Africa.

It is observed that the picture in Africa as painted by the above studies was not so different from the rest of the world. This is because there was also a switch from in-person to online mode of teaching and learning during the peak of the COVID-19 pandemic. However, in the African context, most of the HEIs resorted to digitization of their activities within already existing serious vulnerabilities and inequalities. A study conducted by Heady and Kodjie [31] revealed that the lack of information technology infrastructure in African HEIs has posed a significant threat to sustaining education during the lockdowns. The absence of technology-supported solutions has caused delays and made it impossible for many institutions to continue their educational programs. Subsequently, the vulnerability and living conditions of most students alongside software and hardware deficits coupled with instability in most African countries posed great challenges. Majority of the students could not afford important learning resources such as laptops and internet access, although some HEIs offered some support to ease the burden on students [5, 56]. Additionally. [54] report in their study on Nigeria that access to important academic research resources were curtailed during the lockdown, libraries were closed making it difficult to access relevant literature. Additionally, these authors revealed that although many libraries provided access to e-resources, users did not receive adequate support from library staff.

In Ghana for instance, the government upon realizing the health risk posed by COVID-19 to the millions of students in the country, and the entire educational system generally opted for an online educational strategy as an immediate measure. This interfered greatly with students' academic functioning. Additionally, the regular flow of academic programs were interrupted since tertiary educational institutions were forced to close down and suspend in-person teaching and learning sessions. Others also note that the prolong quarantine period disturbed learners study habits. Specifically, difficulties students encountered included coping with new online assessment methods and workloads, switching to online lectures, communicating with teachers, and dealing with other related concerns such as unavailability of electronic devices, no internet access, high cost of internet, etc. [56]. Not only the above, but also scientific researches were put on hold alongside educational conferences, some of which were moved online or cancelled.

The following literature reviews examine the impact of COVID-19 on tertiary education, both in Africa and specifically in Ghana. While earlier studies have addressed this topic, there remains a significant gap in empirical research on the effects of the pandemic on tertiary education in Ghana, particularly in a self-financed public institution. Thus, there is an urgent need to evaluate data on the disruptions caused by COVID-19 and how they were managed in Ghanaian tertiary-level teaching and learning. In light of this, the current study aims to investigate the impact of COVID-19 on tertiary education in Ghana, using the Ghana Institute of Management and Public Administration (GIMPA) as a case study.). This study makes modest contribution to the existing literature. It examined the impact of COVID-19 on GIMPA, identified the challenges encountered during the pandemic, measures taken to deal with the situation, and recommend ways to prepare for future pandemics.

3. Methodology

The study adopted a qualitative approach for this research because it intended to explore views and opinions of GIMPA staff and students on the effects of COVID-19 on GIMPA as a tertiary Institution. The qualitative approach afforded the investigators the opportunity to examine complex issues by allowing people to share their own experiences on the subject of interest. The qualitative approach permits the description, exploration, analysis and interpretation of informants' knowledge and experiences with GIMPA. This design, according to Creswell [21] is suitable for collecting data in the form of texts from a small number of individuals which allows their views to be thoroughly captured. Moreover, it paves the way for classifying and organizing data into key themes, concepts and emerging categories in a bid to realize research objectives. The study sought to understand how the management of GIMPA responded to COVID-19 crisis and to examine its effects on the institute and students. Consequently, the study adopted an in-depth case study approach focusing on the institute's policies and activities in the management of the crisis. Due to its unique position as Ghana's sole self-supporting public institution, the GIMPA was chosen as the case study's topic [29]. Due to the fact that case studies are effective at addressing "why" and "how" research issues, it was decided that the case study technique was the best way to acquire insight into the crises' consequences [68]. With regard to the study's emphasis, a variety of GIMPA staff and student groups were purposefully chosen as the sample population [21], with a total of 25 participants included to allow for thorough qualitative analysis. The idea advanced by [30] that data saturation can be accomplished with as little as 12 interviews lends credence to this sample size. Careful classification of the interview replies and supplementary material into pertinent themes was necessary for the analysis, discussion, and conclusion that followed.

Face-to-face interviews were used to collect the data for this study. The interviews were semi-structured to allow for follow-up questions and in-depth discussion of the concerns. At the GIMPA main campus, all staff and student interviews took place. Nevertheless, there were a number of difficulties throughout the interviewing process. First, the delay in conducting interviews was caused by the absence of certain management staff members. Second, some employees choose not to take part, claiming their hectic schedules as a justification. Additionally, several of the participants who initially consented to be interviewed had their appointments rescheduled several times, and some of them eventually were unable to show up. Finally, a handful of the participants had

trouble remembering the amounts of payments and the dates of events, but these memory gaps were filled in by triangulation using content analysis of reports and congregation brochures. From July to September 2022, 25 in-depth interviews were performed in total. The sample consisted of 12 GIMPA staff and 13 students. GIMPA staff was made of top management (Rector, Deputy Rector and Secretary of the Institute), three (3) out of eight (8) directorates including finance, human resource management and academic affairs. Other management staff included dean of students, lecturers, middle and lower administrative staff. In the case of students sampled, they included students from each school, PhD students, class leaders of courses, residential students, non-residential students, male and females. The distribution of the final sample illustrated in Table 1.

Table 1. Distribution Sample of the Study.

Description	Sample
GIMPA Staff	13
Top Management	1
Directorates	3
Deans	2
Lecturers/Professors	3
Middle level administrative staff	2
Lower-level administrative staff	2
GIMPA Students	*12*
Faculty of Law	2
Business School	2
School of Public Service and Governance	2
School f technology	2
School of liberal art and sciences	2
School of Research and Graduate Studies	2
Total	*25*

Source: Field Data, 2022.

This high-profile sample provided a rich understanding of how GIMPA responded to COVID-19 crisis and the effects on the institute and students. Additionally, participant observation which according to Mustafa [50] is cardinal for gathering sensitive information and reliable primary data was employed.

Here the focus was on observed policies and strategies that were developed and implemented at meetings, classrooms and on campus generally. The interviews and validation of our observations provided the opportunity to develop a rich understanding and insight into the effects of COVID-19 at GIMPA.GIMPA is a self-financing public university in Ghana. The GoG and the UN jointly established the school through a special fund project in 1961. It was formerly known as Institute of Public Administration (IPA) and was tasked to address the gap between decisions and tasks to be performed on one hand, and the caliber of individuals to perform the task and what has been decided upon on the other. The partnership arrangement between the GoG and the UN ended in 1966, and the UN formally handed-over the Institute to the GoG. The Ghana Institute of Management and Public Administration (GIMPA) has a history dating back to 1961 when it was established as the Institute of Public Administration (IPA). In 1969, it underwent a transformation

to expand its functions, and in 2001, it became self-financed under the National Institutional Reform Programme. As part of this program, GIMPA was among the 200 public sector institutions selected in 1999/2000 to be weaned off government subvention. In 2006, the Ghana Education Trust Fund (GETFund) provided the Institute with capital support of ¢2 billion [29]. This support from GETFUND has not been sustained over the years.

GIMPA as a public entity is legally constituted having gone through five successive mandates. These legislative instruments began from 1961 to the current GIMPA Act, 2004 (Act 676). The Ghana Institute of Management and Public Administration (GIMPA) was established in 1961 as the Institute of Public Administration (IPA), and in 1969 it was rebranded as the Ghana Institute of Management and Public Administration to reflect its enlarged functions. In 1999/2000, as part of the World Bank-funded Public Sector Reform Programme, 200 public sector institutions, including GIMPA, were identified to be weaned off government subvention. GIMPA was also selected to be self-financed under the National Institutional Reform Programme, which was eventually actualized in 2001. In 2006, the Ghana Education Trust Fund (GETFund) provided initial capital support of ¢2 billion to the Institute. The GIMPA Act of 2004 states that the institution operates under the Office of the President and is affiliated with the National Council of Tertiary Education (NCTE). Over time, GIMPA's mandate has expanded from a small public service institution to a comprehensive academic establishment offering various programmes in leadership, management, public and business administration, technology, among others. Presently, the Institute is composed of six schools: the School of Public Service and Governance (SPSG), Business School (GBS), School of Technology (SOT), Faculty of Law (FLAW), School of Liberal Arts and Social Sciences (SOLASS), and School of Research and Graduate Studies (SRGS) [12]. This study aims to investigate how GIMPA responds to the COVID-19 pandemic to remain a vibrant self-financed public university in Ghana and Africa.

4. Presentation of Findings and Discussions

The findings of the study have been presented in this section based on the responses that were obtained from the interviewees. In addressing the research objectives, we focus on the effects of the COVID-19 pandemic on GIMPA as an institution and the students who are beneficiaries of teaching and learning services. We found that there are mostly two perspectives to the effect as there are some positive effects and/or negative effects of the pandemic on these two educational sector actors.

4.1. COVID-19 and GIMPA as a Tertiary Institution and Its Staff

We identified three broad categories of effect on the

institution and the staff, which include institutional and governance effects, economic and financial effects and social and inter-relational effects.

4.1.1. Institutional and Governance Effects

The institutional effects of the pandemic on GIMPA are portrayed by the administrative hurdles created, the impact on the strategic plan of the institute, and how it altered online lectures.

As regards the administrative hurdles, the study noted that there was a multifaceted effect of COVID-19 on the institution with stringent requirements that the various administrative office of the university has to follow. These cover the maintenance of the COVID-19 protocols and providing the needed education and sensitization on them. A member of management pointed out that:

The COVID-19 affected the running of the school in several ways. Although we have emergencies nobody anticipated this type of pandemic. It is a peculiar pandemic that there are a lot of protocols attached to it. The institute has to adapt the protocols and make sure that the people who are affected will observe the protocols…" (Field Data, 2022).

Management expressed their perspectives on how the pandemic affected the strategic stance of GIMPA through the lens of the Institute's Strategic Plan. There was a limited perspective on the extent to which the strategic documents are considered in institutional-wide plans which reflected during the pandemic. Despite some varying perspectives among management, they all agree that the mode of service delivery changed especially regarding the spring boarding of online learning and also the variance in the financial projections of the school.

A management member posited that the net effect is not negative by stating that:

There was no distraction because teaching continued, and all the things we wanted to do only decreased to some extent. Teaching activities were not stopped. The institute rather switched from the in-person mode of teaching to an online mode of teaching (Field Data, 2022).

In further explaining the switch to online learning, the responses highlighted that although the institution had the resources and some fundamental systems for online teaching and learning activities, it took the COVID-19 outbreak and the limitations accompanying it for the Institution to deploy the tech-tools on a large scale. A member of staff noted that:

The Institute was prepared and did not have much of a problem switching from in-person to online because we have very robust internet connectivity which is a very huge bandwidth that we do not consume. We also have the Vodafone fibre connection to campus and also Ghana Academic Network (GARNET) which is a consortium of universities in Ghana, so they put resources together and then also have a bandwidth. The only challenge the institute had was switching to online zoom because we had to subscribe to zoom to make sure that students can get access to it (Field Data, 2022).

Other staff members highlighted the fact that training sessions were organized on the use of an institutional online webinar platform, Zoom, and an institutional online management system. This is to enhance the capacity to deliver effective and efficient lectures and examination tasks for students. Despite the progress on this, there were challenges evident among the staff and students who were at the receiving end. One of the members of staff noted that:

This teaching online is not common with us especially on the part of GIMPA. The pandemic necessitated schoolwide online lectures. Only School of Public Service and Governance accredited and run ahead of time some courses online. This a new thing to many teaching staff (Field Data, 2022).

One of the ways the pandemic affected GIMPA as an institution is the measures on the preparedness of the institution for future crises. The institution has set up an Endowment Fund which is to provide a financial cushion to make up for any shortfalls in event of any future crisis. In the heat of the pandemic, the institute has to provide Personal Protective Equipment (PPE), provide additional security measures, and conduct pandemic response communications, among others.

A senior management member commenting on the emerging innovations created due to the pandemic noted that:

One innovation that emerged was the launching of the Endowment Fund to serve as a cushion in event of pandemics or emergencies. If GIMPA had built an endowment fund in the past ten years the effect of COVID-19 would not be so much daunting and challenging. We would have had enough investment and returns to draw on. (Field Data, 2022).

There were challenges with the communication of the university policies, programmes and events to the staff and students alike. Despite the limitation imposed by COVID-19, there were innovative modes of communication deployed by the management of the Institute.

A staff member stated that:

The graduation ceremonies were managed in such a way that people effectively participate in the event via zoom and others had Facebook and YouTube to watch the ceremony. Students were connected to the Institute through diverse means access to whatever activities that happen during the academic year (Field Data, 2022).

4.1.2. Economic and Financial Effects

Despite a health crisis, COVID-19 has had various economic and financial implications for GIMPA. This has been highlighted in various ways by the interviewees in two broad forms, the revenue and expenditure side as well as, the broader financial processes required as an institution.

As regards the inflows and outflows, the COVID-19 pandemic tends to exert a higher impact on the inflows than the outflows. As activities were halted, revenue-generating activities run by the Institute came to a halt. Despite the fact that there is a correspondent expenditure side to most of the revenue streams the impact on the revenue appears to be higher. To some extent, the Institute resorted to appeals to the

government and financial credits. GIMPA is a self-financing government university but sailed through the crisis. This is what one director said:

In the terms of revenue, the non-traditional revenue completely stopped because there were no conferences, people were not coming to the executive conference centre, for consultancy, and Academy of Leadership and Executive Training (ALET), among others. Students were at home so the control to check them to pay fees was equally not there because they said things are hard for everybody, and they had to pay later. We even ask the government for a bailout but the government said no, as they are also being peached by the pandemic so they could not do much. So, we had to resort to a loan from the bank. (Field Data, 2022).

Commenting based on the proceeds recorded by the finance directorate, the finance officials noted the non-robust financial systems of the Institution, the reduction of the revenues from routine event-type services offered by the Institute, and various short courses and lamented the limited support received from the government as compared to the government fully-subvented institutions.

As regards the robustness of the financial system of the Institute to revenue checks, a senior staff member from the finance directorate noted that:

There was not the slightest idea of preparation in the scheme of things, it has never occurred to them (the directorate) that there would be an event that would cause the Institute to its knees as far as revenue generation is concerned. There was no slight preparation or so ever, and is still not prepared for any emergency of that sort as GIMPA has no emergency funds in a time of crisis of this nature (Field Data, 2022).

Another staff from the finance directorate also remarked that:

The effect was fatal, including our revenue generation capacity, all our sources of income including tuition were brought down. The short programmes, GIMPA Executive Conference Centre (GECC) operations, consultancy activities, and all those things nearly came to a knot. A typical example was our quarterly, yearly program that we were running and getting $300,000 every quarter during that year that source of income ceased and the same applies to our short courses because we could not meet face to face. For academic programmes we were fortunate to have switched quickly to online administration of lectures and examinations. So that bit we were able to get some portion of our tuition revenue. Even because we could not register our revenue tuition went down. During the period our revenue fell from GH¢85million to GH¢46million and our impact was seriously fatal. The response shows that GIMPA was seriously hit financially by the pandemic (Field Data, 2022).

GIMPA appears to depend so much on the presence of the students on campus as part of its current revenue model. Given the no state subvented support received by the Institution as compared to the main government-supported state universities, another staff opined:

The things that the public universities enjoyed we do not enjoy them. Other public universities have GETFund proceeds and if they do not utilize it then it goes back to the government but we do not have that. They also have faculty development funds and institutional support, government pays their utilities and salaries so their hostel fees are just Internal Generated Fund (IGF) they generate and we do not have that. So, if the students do not come to school we would not get anything (Field Data, 2022).

Specifically, another officer was asked if there were any provisions of the Governmental Scheme for Emergency/Special Funding for Institutions. The response was that:

No! But as usual we wrote to the Government looking for a stimulus package but we got in return a no-objection letter to go and borrow from a [government-owned bank] on the strength of our balance sheet. As we speak now not even one cedi came from the government and we have still not received any help from them (Field Data, 2022).

While there was a consensus at the finance directorate level, there are disparities on the extent to which COVID-19 affected specific departments. Some interviewees stated that it affected their schools and departments' revenue while others too said it did not. Given the closures evident in both the private firms and public institutions during the lockdown and the gradual release of the measures, consultancy activities for instance were impacted negatively as noted by the interviewees. The mainstreaming students in-take at the undergraduate level especially and the graduate level were not impacted significantly.

There was an economic channel borne from the requirement for internet data to support staff teaching activities from home. In most cases, the staff were supported but this was coupled with some challenges. Responses from interviewees show that most of them (75%) said they were supported by internet data. Lecturers were generally supported with data. They further stated that the support lecturers received in terms of data were not adequate. Again, some noted that the data receipt was delayed and lecturers had to pay for the data and get the reimbursement later.

One male staff indicated that:

Yes, we were supported with internet data but the money comes after we had used our own money. That is, it was not paid upfront. Also, the support given was not much. So, if you are a lecturer and you don't have money and you are teaching about three subjects and you are only given two hundred Ghana cedis how do you manage that? (Field Data, 2022).

Based on the negative economic impact of the pandemic on the Institution, there were various efforts to explore avenues to meet statutory obligations. A pivotal one was the tax requirements on which the Central Administration made efforts to write to statutory organisations for some sort of waiver in meeting stringent requirements amidst the slow in all economic activities and the limited inflows of the Institution. This backfired and the Institution could only

benefit from the general COVID-19 easing measures initiated by the statutory bodies for businesses and organisations. There were also meeting by the governing council representatives with the leaders of organised labour.

A senior staff noted that:

We were very proactive. Initially, upon the advice of the Finance Directorate, the Central Administration met the union Executives and based on that the Institute financials was shared with the Union executives and discussed with a resolve that if between March to June 2020 nothing happens, then the reserves built to sustain the three months would be exhausted. After that there might be laid off.. So, the first measure was to write to the Statutory Agencies [Ghana Revenue Authority (GRA), National Pensions Regulatory Authority (NPRA), and Social Security and National Insurance Trust (SSNIT)] that because of the impact of the COVID-19 pandemic the Institute would not be able to make the statutory payments (Field Data, 2022).

4.1.3. Social and Inter-Relational Effects

For academics, work-life balance has been a critical issue of concern and the status quo in the pre-pandemic context was changed by COVID-19. The study also considered the social impact of COVID-19 on the staff by focusing on the disruptions to social activities, the extent of work-related stress and the effectiveness of work from home policy.

There are various social events such as funerals, religious and academic-style which staff used to participate in as social agents. The pandemic reduced social and physical interactions and the cost of providing personal protective equipment for family and nuclear social partners. GIMPA was completely on lockdown at the peak of the pandemic leading to both teaching and non-teaching staff-targeted shift system, quarantine requirements for some staff and remote working requirements.

A staff member indicated that:

There was a restriction on travelling, one could not visit their parents for the fear of contracting the virus. In terms of finances, it did affect us so much because we were being paid while at home. We only lost our daily tips whenever we went to work. What affected us was the buying face masks, soap, and sanitizer now and then for the family, We had to spend more. (Field Data, 2022).

Another senior staff noted that:

Management had to put measures in place to ensure that protocols have been mapped out by the Ghana Health Service (GHS), management had to ensure social distancing, and that at every strategic place of the Institute there is a hand washing facility, like soap, tissue and hand sanitizers. The only people who actually could not go on shift were the deans, directors, and the central administration because it was an emergency so for them, it was mandatory to be at work (Field Data, 2022).

The staff interviewed noted that there was no work-related stress during the period and arrangements were made for working from home. However, not all the staff have the digital acumen to transit to the remote system and for those

people, the task becomes more cumbersome. A senior member stated that:

We, first of all, had to learn a lot of things quickly and get the lecturers and the students to also learn that, so apart from the fact that we have the normal work to do how we were supposed to conduct teaching and learning change completely (Field Data, 2022).

Most of the administrative staff interviewed did not see working from home as effective. They cited internet connectivity problems and disturbances from family while working from home as the key problems they experienced. Some of them noted that despite the work-from-home policy, the workload did not increase and the statutory and non-statutory requirements had to be met, leading to increased working loads for staff. One of the senior finance staff members opined:

I do not see any benefit, if there is any benefit it is for the staff who had the opportunity to stay home to rest. My directorate [finance] came to work through the period because we needed to prepare for external auditors to come. We needed to still come and work on salaries, process payments, and show faith that the Institute existed. Those who benefited to some extent are the employees who by the nature of their work did not have to come campus to work (Field Data, 2022).

4.2. COVID-19 and GIMPA Students

There are different ways that the COVID-19 pandemic affected students who are beneficiaries of various teaching and learning interventions. Similar to other educational institutions, GIMPA students were affected in various ways. These included learning, social interaction, physical health and exercise, mental health, transition to online platforms, and finances.

4.2.1. Effect on Learning

The study found that students experienced several learning disruptions during the COVID-19 pandemic. Despite the avenues for effective learning with the online system, not all students found it convenient. Thus, some were not able to adjust and be able to utilise the platforms to their full benefit. Even the students that were conversant with the tools and ready to learn, they raised concerns about being reluctant. To some extent, this is due to the way the measures were rolled out. Initially, there was an abrupt closure of schools without any clear date of return. For the students who are more comfortable with reading books from the library and the study rooms, the new normal created a very uncomfortable atmosphere for them. Even for the students involved in group studies, the closure of on-campus activities was affected negatively. Some of the students regarded the early days of the COVID-19 as a time away from academic activities.

During the pandemic, several students raised concerns about their inability to study due to their unsuitable home environment. In particular, one student expressed that their house was always noisy, which made it impossible to concentrate on studying. As the student explained, they used

to rely on the library or seminars in their department to study, but the pandemic forced them to stay at home for an extended period, and this had adversely affected their ability to read."

Students at GIMPA have experienced pertinent academic interruptions as a result of the pandemic epidemic since the institute's shutdown forced the suspension of face-to-face teaching and learning activities, which disrupted the regular flow of academic programs. The extended home isolation time had a negative impact on students' mental health and academic development, causing a reduction in their study habits and work performance, which in turn led to the creation of stress and unhelpful learning patterns. Additionally, the pandemic seriously interfered with students' ability to learn since a number of internal tests had to be rescheduled or cancelled. GIMPA launched a considerable shift from conventional face-to-face learning programs to emergency online learning as a way to lessen the interruptions.

4.2.2. Loss of Social Interactions

The COVID-19 pandemic caused significant disruptions in the physical and social interactions of both students and faculty. During interviews, all participants expressed a strong sense of longing for the campus environment and social interactions with friends and lecturers, which were sorely missed during the pandemic.. Most especially those who were used to group study and peer learning were challenged as they missed the opportunity to discuss academic problems with friends. Also, the opportunity presented by COVID-19 through zoom meetings and social media platforms were inadequate for them. It was found that fewer social interactions with friends and lecturers disrupted their motivation to study as some students indicated:

Before the lockdowns when we used to study with our friends in-person, there were difficult problems that I could understand spending less amount of time. However, during the pandemic when it was difficult to interact face-to-face, I experienced difficulties and had to spend more time studying, learning became lonely and stressful, and I have lost my motivation to study as a result (Field Data, 2022).

One student recounted that:

In my case I have a group of friends that we always move together. We do a lot of things together, we encourage ourselves and serve as checks on each other in our academic and social lives. This kept us in check and organized but all this has to come to an end because of COVID-19.

Another student stated that:

The long period of staying at home have made me develop antisocial habits. I hardly converse with anyone spontaneously and mostly keep to myself thanks to social distancing and home quarantine. Most of my colleagues are in the same situation and it will be difficult to go back to our old ways of opening up freely (Field Data, 2022).

4.2.3. Physical and Mental Health Problems

The level of physical activities was reduced for students during the pandemic. For students that are stressed with long travels from home to campus, this served as a relief for them. However, the limited activities as students were stuck in their houses due to the quarantine requirements and the lockdowns resulted in some lifestyle changes that affected their health. The physical inactivity which manifested in the routine habits of sleeping and eating made some students gain weight or obese. These developed stress for some of the students.

One male student indicated that:

We used to engage in many physical activities such as walking to and from lectures, visiting colleagues, attending social and religious programs and many others. However, because of our new role of staying at home all day we started getting fat and inert, we started feeling torpid and giddy (Field Data, 2022).

A female student also observed that:

The home quarantine has affected my health. I can sense I have gained weight and easily get tired with the little physical activity. My heart beat increases at regular intervals. With this condition, I am not able to concentrate on my studies as I used to. I am very disturbed about this pandemic (Field Data, 2022).

The changes created by the new normal of the COVID-19 pandemic put a lot of pressure on students. In this case, they complained about the heightened problem of stress while there were no counselling services available while they were home. Most of the interviewees were tensed and disturbed about the fear of being infested with COVID-19, and the unplanned and disorganized nature to which the educational calendar turned as the national education regulatory bodies (with the Ghana Health Service) attempted to mitigate the outbreak of the virus.

4.2.4. Shifting to Online Education

Some students noted that the migration to the online mode of learning was one of the benefits of the COVID-19 pandemic. However, some interviewees agreed that the accompanied internet infrastructure was nonexistent. Many students had no electronic devices like laptops, computers, or tablets and therefore had to use their phone to take part in online classes and also had bad internet networks at home. Some experienced limited internet bandwidth coupled with frequent power cuts ("*dumsor*") in their localities. Others also commented on the high cost of internet data. In cases where the lecturers set virtual breakout rooms for group sessions, group members who have low internet connectivity fail to contribute in full, thus negatively affecting the entire group discussion.

One student commented:

There are many hassles with students when using online classes. The internet speed was too slow in my area, coupled with the frequent power outages and expensive data for online classes (Field Data, 2022).

All the interviewees experiencing online classes chose the in-person mode of learning over that of the online because they did not feel connected to online classes. They expressed disappointment over online learning with the initial thought that it was more effective. They found that the online platform is stressful and reduced their personal confidence.

Even for cases where the lecturers attempted to enhance participation by calling the names of students to participate, the connectivity issues reduced the effectiveness evident for the physical classes.

Interviewees further expressed their concern about keeping up with online class schedules regularly. This is usually due to interruptions from family members in the house. Some of the students ended up running errands in town at the same time that they were supposed to be in class. This affected how to contribute to class activities and participate fully to grasp what the lectures delivered. Similar challenges emerged during the exam sessions. For the cases where exam window dates are announced for students, various disruptions affected the extent to which they are able to effectively respond to their exam questions.

One female student stated:

The experience was new to my family and so they did not understand what was going on with my classes online. They didn't see it as anything serious and so they regularly interfered with my online class activities through sending me on various errands, particularly during class hours. Efforts to convince them in order to keep up with my online class activities was mostly a herculean task to overcome (Field Data, 2022).

Another female interviewee mentioned:

I think my family is enjoying my company. I have not stayed at home with them for such a lengthy period of time, and because of that they make me perform most of the house chores. This makes me very tired mostly and I find it difficult to learn and even partake in the online classes because there is no more energy to do that (Field Data, 2022).

The closure of schools due to the COVID-19 pandemic has posed significant challenges for the education community in India. As highlighted by Pujari [47], students, lecturers, and parents are facing numerous difficulties. While online teaching is a practical and suitable alternative, it presents a challenge for low-income families and students.

5. Conclusion

This study examined how the challenges associated with the COVID-19 pandemic was managed by GIMPA, and the lessons derived from the experience to serve as a guide to other institutions that may go through similar events in future. The study identified three key areas of impact of the COVID-19 pandemic on GIMPA and its staff. These included the areas of institutional and governance, economic and financial, and social and inter-relational. On the side of the students, they were affected in the following ways thus, their physical health, mental health, social interactions, learning, transition to online platforms, and finances.

The study has demonstrated that the flexible management practices by GIMPA enabled it to respond adequately to the adverse effects of the COVID-19 pandemic in order to remain a vibrant self-financed public university in Ghana. The findings revealed that generally while all public universities in Ghana depended on funding from the government for survival [12], The management of GIMPA used an entrepreneurial strategy to encourage the sale of services, which helped to provide funds for long-term educational affordability. The Institute's main goal is to provide public workers with training while also providing education, training, and services in the areas of leadership, management, and public administration to the public, private, and non-governmental sectors. In order to maintain operations during the pandemic, GIMPA continues to provide its clients online training for leadership and management services. In order to preserve its competitive edge, Theming Institute needed to be able to quickly change its capabilities and deploy resources using internal competences.

In line with their newly gained skills, people who are learning have the ability to look for new positions, according to [46]. As a result, learners may turn to their colleagues for help with duties linked to their new role, which can lead to the growth of stronger relationships with coworkers. It is possible for transformational learning to have a long-lasting effect on a learner's confidence in their ability to deal with day-to-day issues throughout their life. Transformational learning is an experience process that facilitates a paradigm shift in a person's theoretical constructions. The theoretical underpinnings of transformative learning can be used to describe the learning process, inform instructional strategies, curricula, and assessments, as well as aid students in reflecting on and comprehending their individual learning processes, ultimately increasing the likelihood that desired learning outcomes will be met. s. As a result, they are critical because they help education practitioners to comprehend, analyze, and improve educational approaches. The effects of COVID-19 on GIMPA as an HEI in Ghana and its managerial efforts to overcome the challenges provides a useful case for similar HEIs in other jurisdictions.

References

[1]   Abbasi, S., Ayoob, T., Malik, A., Memon, S. I. (2020). Perceptions of Students regarding E-learning during COVID-19 at a Private Medical College. Pak. J. Med. Sci. 36 (COVID-1919-S4), S57.

[2]   Adedoyin, O. B., & Soykan, E. (2020). COVID-19 pandemic and online learning: the challenges and opportunities. Interactive Learning Environments, 1–13.

[3]   Ahmed, MZ Ahmed O, Aibao, Z Hanbin, S Siyu L, and Ahmad A (2020) Epidemic of COVID-19 in China and associated Psychological Problems Asian J Psychiatr. June; 51: 0.1016/j.ajp.2020.102092.

[4]   Agaba, J. (2020). Private universities worry about losing students and staff. University World News The Global window on Higher Education.

[5]   Agormedah, EK., Henaku, E. A., Ayite, DMK., Ansah E. A. (2020). Online learning in higher education during COVID-19 pandemic: A case of Ghana. J. Educ. Technol. Online Learn, 3 (3), 183-210.

[6] Almaiah, M. A., Al-Khsawneh, A., Althunibat, A., (2020). Exploring the critical challenges and factors influencing E-learning system usage during COVID-19 pandemic. Educ. Inf. Technol. 25 (6), 5261-5280.

[7] Al-Tammemi AB, Akour A, Alfalah L- (2020) Is it just about physical health? An online cross-sectional study exploring the psychological distress among university students in Jordan in the midst of COVID …Frontiers in psychology, 2020 - frontiersin.org.

[8] Almazova, N., Krylova, E., Rubtsova, A., & Odinokaya, M. (2020). Challenges and opportunities for Russian higher education amid COVID-19: Teachers' perspective. Education Sciences, 10 (12), 368.

[9] Ardan, M., Rahman, FF., Geroda, GB. (2020). The Influence of Physical Distance to Student Anxiety on COVID-19, Indonesia. J. Crit. Rev. 7 (17), 1126-1132.

[10] Atamba, C., Abazie, G. A., Nweze, C. N., Bonney, B., Mohamed, H. H. & Onwubuya, G. C. (2022). A Systematic Review of African University Student's Learning in the Era of COVID-19 Pandemic: Lessons from China. *Creative Education,* 13, 3581-3592.

[11] Blankenberger B. & Williams A. D. (2020) COVID and the impact on higher education: The essential role of integrity and accountability *Administrative Theory & Praxis*, *Routledge* 42: 3, 404-423, DOI: 10.1080/10841806.2020.1771907.

[12] Bondzi-Simpson PE and Agomor KS (2020) Financing Public Universities in Ghana through Strategic Agility: Lessons from Ghana Institute of Management and Public Administration (GIMPA) *Global Journal of Flexible Systems Management* 22, 1–15 (2021). https://doi.org/10.1007/s40171-020-00254-6

[13] Bozkurt, A., & Sharma, R. C. (2020). Emergency remote teaching in a time of global crisis due to Corona Virus pandemic. Asian Journal of Distance Education, 15 (1), i–vi.

[14] Burgess, S. & Sievertsen, H. H. (2020). Schools, skills, and learning: The impact of COVID-19 on education VoxEu. org, 2020 - voxeu.org.

[15] Cecco, L. (2020,). Canada: Minister says COVID-19 lockdown a 'great time' to build pipeline *The Guardian* Retrieved   from https://www.theguardian.com/world/2020/may/26/canada-coronavirus-alberta-energy-minister-oil-pipeline.

[16] Chand, A. A., Lal, P. P., & Chand, K. K. (2021). Remote learning and online teaching in Fiji during COVID-19: The challenges and opportunities. International Journal of Surgery, 92, 106019.

[17] Charles NE, Strong SJ, Burns LC Bullerjahn MR, Serafin KM (2021) Increased mood disorder symptoms, perceived stress, and alcohol use among college students during the COVID-19 pandemic. Psychiatry Res. 2021 Feb; 296: 113706. doi: 10.1016/j.psychres.2021.113706. Epub 2021 Jan 5.

[18] Chandasiri O (2020) The COVID-19: impact on education International Journal of Advanced Education and Research Volume 5; Issue 3.

[19] Cranton P (1994) Understanding and Promoting Transformative Learning: A Guide for Educators of Adults. San Francisco: Jossey-Bass.

[20] Cranton P (1996) Professional Development as Transformative Learning: New Perspectives for Teachers of Adults. San Francisco: Jossey-Bass.

[21] Creswell, J. W. (2014). *A concise introduction to mixed methods research*. SAGE publications.

[22] Daniel, J. (2020). Education and the COVID-19 pandemic. Prospects, 49 (1), 91–96.

[23] Angrist, N., Djankov, S., Goldberg, P. K. & Patrinos, H. A. (2021). Measuring human capital using global learning data. *Nature,* 592, 403–408.

[24] Dhawan, S. (2020). Online Learning: A Panacea in the time of COVID-19 Crisis. J. Educ. Technol. Syst. 41 (1), 5-22.

[25] Doumbia, S., Sow, Y., Diakite, M., & Lau, C.-Y. (2020). Coordinating the research response to COVID-19: Mali's approach. *Health Research Policy and Systems*, 18 (1), 1–7.

[26] Doucet, A., Netolicky, D., Timmers, K., and Tuscano, F. J. (2020). About Pedagogy in an Education Sub Saharan Africa (ESSA) Unfolding Pandemic.

[27] Dutta, S. & Smita, M. K. (2020). The Impact of COVID-19 Pandemic on Tertiary Education in Bangladesh: Students' Perspectives. *Open Journal of Social Sciences*, 8, 53-68.

[28] ESSA (2022). Case Studies on the Impact of the Covid-19 Pandemic and the Responses from West African Universities. Final Technical Report of the Education Sub Saharan Africa (ESSA). https://idl-bnc-idrc.dspacedirect.org/handle/10625/60843

[29] GIMPA (2008) *GIMPA's Submission for the AAPAM Award for Innovative Management*, Unpublished.

[30] Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field methods, 18* (1), 59-82.

[31] Heady, L. & Kodjie, K. (2021) Political will needed to create the ideal post-pandemic university: University World News May 2021.

[32] Hedding, D. W., Greve, M., Breetzke, G. D., Nel, W., & Van Vuuren, B. J. (2020). COVID19 and the academe in South Africa: Not business as usual. *South African Journal of Science*, 116 (7-8), 1–3.

[33] Jacob, O. N., Abigeal, I. & Lydia, E. A. (2020). Impact of COVID-19 on the higher institutions development in Nigeria. *Electronic Research Journal of Social Sciences and Humanities*, 2, 126-135.

[34] Jamerson, K., Josh, M., & Joshua, B. (2020). Student-Loan Debt Relief Offers Support to an Economy Battered by Coronavirus. Wall Street Journal, 99-96.

[35] Kalloo, R. C., Mitchell, B., & Kamalodeen, V. J. (2020). Responding to the COVID-19 pandemic in Trinidad and Tobago: challenges and opportunities for teacher education. Journal of Education for Teaching, 46 (4), 452–462.

[36] Kaup, S., Jain, R., Shivalli, S., Pandey, S., & Kaup, S. (2020). Sustaining academics Education Sub Saharan Africa (ESSA) during COVID-19 pandemic: the role of online teaching-learning. Indian Journal of Ophthalmology, 68 (6), 1220.

[37] Khan, Z. H., & Abid, M. I. (2021). Distance learning in engineering education: Challenges and opportunities during COVID-19 pandemic crisis in Pakistan. The International Journal of Electrical Engineering & Education, 0020720920988493.

[38] Khaliq, A., Shams, M. S. & Niazi, M. M. (2020). COVID-19 Pandemic: Challenges and Opportunities for Higher Education in the Afghanistan Context. Kardan J. Econ. Manag. Sci. 3 (3), 35-43.

[39] Khlaif, Z. N., Salha, S., Affouneh, S., Rashed, H., Elkimishy, L. A. (2020). The COVID-19 epidemic: teachers responses to school closure in developing countries. Technol. Pedagog. Educ. 1-15.

[40] Liang, Z., da Costa Junior, M. G., & Piumarta, I. (2020). Opportunities for improving the learning/teaching experience in a virtual online environment. In 2020 international conference on teaching, assessment, and learning for engineering (tale) (pp. 243–250).

[41] Lindzon, J. (2020). "School closures are starting, and they'll have far-reaching economic impacts". Fast Company. Retrieved 2020-03-22.

[42] Marinoni, G., Van't Land, H., & Jensen, T. (2020). The impact of COVID-19 on higher education around the world. IAU Global Survey Report.

[43] Meng, L, Hua, F. & Bian, Z. (2020). Coronavirus Disease 2019 (COVID-19): Emerging and Future Challenges for Dental and Oral Medicine Journal of Dentist Sage Journals Volume 99, Issue 5. https://doi.org/10.1177/0022034520914246

[44] Menon, K., & Motala, S. (2021). Pandemic Leadership in Higher Education: New Horizons, Risks and Complexities. Education as Change, 25, 19–pages.

[45] Meo, SA, Al-Khlaiwi, T Usmani, AM (2020) Novel coronavirus 2019-nCoV: prevalence, biological and clinical characteristics comparison with SARS-CoV and MERS-CoV Journal of King Saud Elsevier.

[46] Mezirow J (1997) Transformative learning: theory to practice N. Dir. Adult Cont. Educ., 1997 (74) (1997), pp. 5-12.

[47] Mezirow J (1996) Contemporary Paradigms of Learning. Adult Education Quarterly, 46 (3), pp. 158–172.

[48] Molchanova E, Kovtoniuk, K and Savych, O (2020). COVID-19 Presents New Challenges and Opportunities to Higher Education *Journal for Multidimensional Education, Vol 14 Issue 2.*

[49] Mukhtar, K., Javed, K., Arooj, M., Sethi, A., (2020). Advantages, Limitations and Recommendations for online learning during COVID-19 pandemic era. Pak. J. Med. Sci. 36 (COVID-1919-S4), S27.

[50] Mustafa A (2000). *Research Methodology,* India: A. I. T. B. S. Publishers.

[51] Neuwirth, L. S., Jovíc, S., & Mukherji, B. R. (2020). Reimagining higher education during and post-COVID-19: Challenges and opportunities. Journal of Adult and Continuing Education, 1477971420947738.

[52] Nicola, M., Alsafi, Z., Sohrabi, C., Kerwan, A., Al-Jabir, A., Iosifidis, C., Agha, M., & Agha, R. (2020). The Socio-Economic Implications of the Coronavirus Pandemic (COVID-19): A Review. International Journal of Surgery, 78, 185-193. https://doi.org/10.1016/j.ijsu.2020.04.018

[53] Noori A. Q. (2021) Students' experiences of their leadership development through the leadership subject taught in universiti teknologi Malaysia. J. World Engl. Educ. Pract., 6 (8) (2021), 1-9.

[54] Omeluzor, S. U., Nwaomah, A. E., Molokwu, U. E., & Sambo, A. S. (2021). Dissemination of information in the COVID-19 era in university libraries in Nigeria. IFLA Journal, 03400352211037700.

[55] Orfan, S. N., & Elmyar, A. H. (2020). Public knowledge, practices and attitudes towards COVID-19 in Afghanistan. Public Health of Indonesia, 6 (4), 104–115. https://dx.doi.org/10.36685/phi.v6i4.356

[56] Owusu-Fordjour, C., Koomson, C. K. & Hanson, D. (2020) The impact of COVID-19 On learning - The perspective of the Ghanaian student. European Journal of Education Studies, 7 (3), pp. 88-100.

[57] Pokhrel, S. & Chhetri, R (2021) A Literature Review on Impact of COVID-19 Pandemic on Teaching and Learning; Higher Education for the Future, 2021 - journals.sagepub.com.

[58] Pujari, D. R (2020) Impact of CORONA Virus on Indian Education Systems. UGC Care Journal, 31, 1-3.

[59] Salih, S. K. & Taniwall, N. J. (2020). Issues and Challenges of E-learning System adoption in a public university of Afghanistan: A case study of Shaikh Zayed Univ. J. Human. Soc. Sci. (IOSR-JHSS) 25 (1), 63-69.

[60] Tamrat, W. (2021). Enduring the impacts of COVID-19: experiences of the private higher education sector in Ethiopia. Studies in Higher Education, 46 (1), 59-74.

[61] Thai, NTT., De Wever, B., Valcke, M. (2020). Face-to-face, blended, flipped, or online learning environment? Impact on learning performance and student cognition. J. Comput. Assist. Learn. 36 (3), 397-411.

[62] van Schalkwyk, F. (2021). Reflections on the public university sector and the covid-19 pandemic in South Africa. *Studies in Higher Education*, 46 (1), 44–58.

[63] UNESCO (2020). COVID-19: Educational disruption and response. Paris, France: UNESCO.

[64] Watermeyer, R, Crick T, Knight C, and Goodall J (2021) COVID-19 and digital disruption in UK universities: afflictions and affordances of emergency online migration *High Educ (Dordr)* 2021; 81 (3): 623-641. doi: 10.1007/s10734-020-00561-y. Epub 2020 Jun 4.

[65] Widodo A., Nursaptini, N., Novitasari, S., Sutisna, D., Umar, U. (2020). From face-to-face learning to web based learning: how are student readiness? Premiere Educandum: Jurnal Pendidikan Dasar Dan Pembelajaran 10 (2), 149-160.

[66] World Bank (2020). Cambodia Economic Update May 2020: http://documents.worldbank.org/curated/en/843251556908260855/pdf/Cambodia-Economic-Update-RecentEconomic-Developments-and-Outlook.pdf

[67] World Health Organization. (2020). Director-General's remarks at the media briefing on 2019-nCoV. Retrieved from https://www.who.int/dg/ speeches/detail/who-directorgeneral-s-remarks-at-the-media-briefing-on-20 19-ncov-on-11-februar

[68] Yin, R. K. (2006). Mixed methods research: Are the methods genuinely integrated or merely parallel. *Research in the Schools*, *13* (1), 41-47.