



PRESIDENTIAL ADDRESS TO THE 34TH ANNUAL GENERAL MEETING

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LEVERAGING ON THE COVID-19 PANDEMIC TO ADVANCE THE PRACTICE OF ENGINEERING AND TECHNOLOGY

Preamble

Hon. Minister, Members of the I.E.T. Council, Invited Guests, Colleague Members of I.E.T., Ladies and Gentlemen, all other protocols duly observed!

On behalf of the I.E.T. Council, I am most grateful to the Almighty God for the opportunity of having this 34th Annual General Meeting of our illustrious Institution. I welcome you all once again and wish us all fruitful deliberations. Considering the circumstances within which this Annual General Meeting is being held, the Council of I.E.T. decided to have as our theme, *“Leveraging on the COVID-19 pandemic to advance the practice of Engineering and Technology”*.

In December 2019, the world was struck by the novel Corona Virus pandemic in initially in the Wuhan Province of China. It later spread to other parts of China, to various countries and all other continents of the world. This pandemic has since affected 54.7 million people with 1.32 million sadly succumbing to it through death. The impact of COVID-19 continues to be felt across the world with new surge reported in countries which include France, Great Britain, Italy, Spain, Germany, and the USA. These countries have been forced to implement a second lockdown to enable them to manage the impact of the pandemic efficiently.

The impact of the novel pandemic has affected almost every sector of the economy across the world. One of the most affected sectors is the engineering and technological sub-sectors. It is not unusual for the engineering sector to experience economic downturns, but COVID-19 has had a real consequence on the engineering sector. The closedown of businesses has slowed down the growth of economies across the world with many countries predicting negative growth. This, in turn, has affected construction projects as financing of such projects have hit the snag. The result of this is a delay in the completion of ongoing projects or cancellation of projects entirely.

On the other hand, the broader technology sector has been impacted positively since the inception of this pandemic. Most people and individuals have relied on technological platforms like Zoom, Microsoft 360, Microsoft Teams, Google Classroom, WhatsApp among

others to interact with their families and businesses. Also, some technology firms have taken advantage of the closedown of schools to come up with exciting resources that would bring education to the doorstep of pupils and students. Additionally, social media and streaming companies have enjoyed a great boom in demand as millions of people across the globe have been forced to stay at home due to lockdowns aimed at managing the impact of the coronavirus. This has thus increased the net worth of these technological platforms. A report released on the best global brands across the world put five (5) technological companies as the top of the ten leading global brands. These include apple, amazon, Microsoft, Google, and Samsung. According to Christian Purser, Chief Executive of Interbrand London, technological brands have become even stronger as a result of the COVID-19 effect.

In Ghana, the story has not been different in terms of the impact of COVID-19 within the engineering and technological space. While during the lockdown many ongoing construction and expansion to industrial projects had to be halted and some canceled, technological brands especially in the e-commerce space made a lot of revenue. However, many people relied on technological platforms Zoom, Microsoft 360, Instagram, Microsoft Teams, Google Classroom, WhatsApp to either communicate with friends and family, access education, and transact their business among others. This shows a tail of two ends for the engineering and technological space in Ghana. It must be noted that despite the above, various technologies were churned out to help manage the spread of the virus in Ghana.

The opportunities from post COVID-19 are enormous if the needed investment and support would be made available by the government and technological incubators in Ghana.

Design and Construction of Structures

COVID-19 has thought us that the need for space is very important in every structure. As such in the planning and design of future structures, engineering practitioners would have to ensure that the facilities they design and build have adequate space especially as the concept of social or physical distancing became the order of the day. This would ensure that people get enough space to conduct their businesses.

Another need that came up was that for residential buildings to be designed and built to include conducive spaces in them for home offices or work. Provision of these facilities will offer spaces for work to operate or transact business from home.

Additionally, structures should be designed in ways that will make them easily accessible to internet facility. This would make various activities that rely on the internet easy to conduct.

Telecommunication Industry

Ghana's telecommunication industry has undergone several phases of growth and diversification over the last two decades, as the first country in Africa to get connected to the

internet in 1994. As of the beginning of 2020, total penetration rate for mobile telephony in Ghana was 136.8% and for 2G/3G, mobile data stood at 94.8%. By way of internet usage, most people in urbanized areas have access to two or more data services such as Wifi broadband at home, LAN connectivity at the office and mobile Wi-Fi hotspot devices for tablets or phones. Although nearly half of the country's population has access to internet, cost of internet data has largely been expensive.

The trend gives a clear indication that demand for internet connectivity promises to be very high in the coming years. It will therefore be imperative for the telecommunication networks in the country to put in efforts to make the internet easily accessible in every part of the country. Internet charges should be reviewed to reflect the current socioeconomic impact of the COVID-19 on individuals. With the cheaper cost of the internet, more people are likely to rely on them for communication, education (e-learning), e-commerce, work, and as a source of accessing entertainment. This will in turn boost their profits while they increase their share of customers.

Application Softwares

Most of us are aware of how financial technology (fintech) industry heavily rely on the use of technologies to deliver financial services. In Ghana the fintech industry is telco-led because they offer the telephony and data backbone to both Fintech firms and banking/ financial institutions.

In the heat of the pandemic, most transactions have been processed using major financial market infrastructures (FMIs) such as the Ghana's Real Time Gross Settlement (RTGS) system; Cheque Codeline Clearing (CCC) system; Ghana Automated Clearing House (GACH) system; National Biometric Smartcard Payment System - E-Zwich; National Switching and Processing System - Gh-link™; GhIPSS Instant Pay (GIP), Ghana's Paper Payment Instrument Accreditation Scheme; and the Mobile Money sub-sector.

For example, as social distancing has held sway globally, there has been tremendous growth in the utilization of digital financial services and e-commerce. While we cannot exactly predict what form post-crisis opportunities will take, one thing is certain and it is that the fintechs - a sector that steeped in innovation - is most likely going to generate new and transformative solutions for our common good.

Again going forward into the future, it is obvious that technological companies in Ghana should take advantage of the demand for home office systems, online educational infrastructure, and online payment platforms to design applications for video-conferencing, project management, online application tools, online payment platforms, online church platforms among others. This would help to boost their value and increase their profits.

Health Sector

Even before the COVID-19 pandemic hit our shores, the Ghana Health Service had signed up to a drone delivery service in 2019 that ensured over 600 on-demand emergency delivery flights of 148 different vaccines, blood products and life-saving medications to the over 2,000 health facilities across the country on a 24-hour a day basis. That service became extremely in the management of Covid and into the future, the deployment of many such technologies is a sure catalyst for the health sector.

One of the most important hospital equipment during this pandemic has been ventilators. At the peak of the pandemic in Ghana, due to the shortage of ventilators across the world, a lecturer at the Kwame Nkrumah University of Science and Technology (KNUST) and a group of students came up with an improvised designed ventilator to help manage the pandemic.

The low-cost ventilator to assist patients with acute respiratory distress syndrome (ARDS) designed by a team of lecturers and students put together by Prof. Mark Adom-Asamoah to think through how best to innovate the design of less expensive ventilators, for past two years, been working on how to write a good ending to this story which is now captured in the Ghana Medical journal. *“As a College, we observed in the year 2017 that there is a serious lack of ventilators in the country. Quite apart from Komfe Anokye and Korle-Bu Teaching Hospital, most of the district hospitals lack ventilators. So we initiated a project with the University of Michigan to build a locally-made ventilator”*, Provost of the College, Prof. Mark Adom-Asamoah, explained the objective of the project.

Ghana was again fortunate to have had various instances of young people (some relatively unschooled) who through their ingenuity designed various sanitizing equipment to enhance the fight of COVID-19 in the heat of the pandemic.

For example, Mr. Richard Kwarteng a resident of Kumasi invented a solar-powered automated hand washing machine to encourage safe hand-washing practices. The machine enabled people to wash their hands under running water without touching the tap or knob of the water receptacle. The invention was subsequently approved by the Ghana Standards Authority in May 2020.

With that done, it is obvious that it is now up to engineering practitioners to collaborate on the improvement of these equipment and devices for mass production for the benefit of the country.

Conclusion

In conclusion, the COVID-19 pandemic has undeniably accelerated digital transformation across the world and opened our eyes to the possibilities offered by engineering and technology solutions in enhancing and support our lives, and sustain our businesses as well as the nation's economy.

Many people are of the belief and rightly so that, there is no going back to the 'old normal' and that what we now refer to as the 'new normal' is here to stay. COVID-19 has actually propelled organizations toward the re-definition of their 'new normal' and obstacles that were previously in the way of technological transformation have been found wanting without the option of alternatives.

Therefore, the effectiveness of any nation's response to the challenges posed by COVID-19, to the recovery of both its economy and social well-being, will largely depend on the talent of engineering practitioners, scientists and such other allied professionals.

Although the practice of engineering and technology has undergone hardships and transformation during the play-out of the COVID-19 pandemic, the industry will in the end, no doubt come out better than before. From improved processes to openness and to remote working, engineering is being positively impacted for a successful future.

Here, it is imperative that as engineering practitioners, we all avert our minds to this and recalibrate our actions in order to be able to take full advantage of the benefits that this 'new normal' offers to us. We cannot afford to fail our world in this!

I thank you for your attention and I am hopeful that I was able to discharge myself of the onerous duty.

Together, we will be successful with our professional life after COVID-19.

God bless you and God bless us all!