

EDITORIAL



The spread of COVID-19 has been a catastrophe and impacts on a broad range of areas in the society. John Meriman Gaus, who was an American social scientist, argued that to be most effective to manage catastrophic events, the government should be considered as part of an ecological system. An ecosystem comprises people, physical place, technology, social environment, wishes and ideas, catastrophes, and personalities. According to Gaus, a catastrophe requires a large scale of relief and repair if it is destructive. But if it is disruptive then it challenges views and attitudes, and affords the inner self as well as others a respectable and face-saving reason for changing one's views as to a policy.

Elements in the ecological systems are interconnected within a complex environment. When a catastrophe such as COVID is introduced into the system, it produces a ripple effect as interrelated components respond to the disastrous event. As one element adjusts to the stimulus, other parts of the system react in response. As people are impacted and change their behaviour, physical and social technologies shift as well, and vice versa. This reaction continues until a new equilibrium is reached.

The education sector is one that is negatively affected by COVID-19. The acceleration of COVID-19 necessitated a shift from the traditional face-to-face delivery to virtual learning in higher education, with a vast impact on people, place, and physical and social technologies. However, the manner in which these interact as they move toward equilibrium will be unknown for some time. Student demands for online education have been growing. Online education technologies have been in place for years, although they need to expand dramatically, and new technologies will emerge as more people use them after the pandemic has decelerated.

In this issue of the *Journal of Management & Administration* we have carefully selected articles that are very relevant in the current VUCA environment. J. Nyamunda explores how South African education system prepares students for the Fourth Industrial Revolution. In his article, Nyamunda compares the South

African student performance with international benchmarks and provides practical suggestions how to improve students' performance in mathematics and science.

The accessibility of information brought about by the development of communication technology has made it necessary for future graduates to be able to handle this information. Most universities offer compulsory courses on research methodology to benefit and understand research. Universities have put substantial resources and personnel to help students to acquire research skills and to prepare them as knowledge-based human capital. H. Kwandayi and T. Muyambo have investigated research skills among postgraduate students through document analysis and observations. They suggested that guiding questions to be used when critiquing journal articles.

The telecommunications sector is the backbone of a country in the VUCA world. It is imperative for business to have a speedy, reliable and affordable access to the world class networks, which form the basis for online activities and, more broadly, participation in the Fourth Industrial Revolution. S. Mqutheni and S.A. Pillay explore the Wireless Open Access Network policy, which has been recently released in South Africa. It will be very useful for all the stakeholders to consider how to implement the new policy in a wider context as reported in this article.

With about five billion people using the Internet today, digital marketing is one of the easiest and most affordable ways to reach the target groups. In South Africa, digital marketing has not gained as much popularity as it should have. I. Nohumba, C. Nyambuya and G. Nyambuya present a qualitative study exploring challenges or opportunities that digital marketing offers to business. Their findings are very important for all business that have not yet done digital marketing or plan to go that route to grow.

I hope that the articles that we have selected for this issue will add value to readers' critical thinking and decision making for their future prosperity.

Get vaccinated and stay safe.

With all best wishes,

Prof. Muhammad Hoque,
Editor-in-Chief,
MANCOSA, Durban, South Africa