

## Chapter 10

# Fourth Industrial Revolution, Accounting Profession Well-Being, and Environmental Well-Being in South Africa

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### **ABSTRACT**

*Industry 4.0 centers on the connection of physical and cyber networks to allow actionable insights and real-time information flow such that the well-being of the creatures, workplace, and the environment is guaranteed. Plastic pollution has been a major menace in South Africa and the proposed ban has not been implemented by the government. With the current measures of reducing the pollution, it was evident that the use of fourth industrial revolution has not been effective. Thus, it was recommended that government should enforce labelling of very single-use plastic and an associated fine should be attached to every single-use plastic found polluting the environment. It should be made mandatory for all management accountants to include cost for plastic pollution as one of the operating costs of each organisation. Also, it is recommended that robots can be erected around the cities, towns and workplace picking plastic waste. This will show the seriousness of the government to combat the single use plastic pollution and automatically curb the littering of the environment with plastics.*

### **INTRODUCTION**

The Fourth Industrial Revolution (4IR) brought to the accounting profession the Internet of Things (IoTs), automation, and artificial intelligence (AI), all of which must be greatly embraced in order to be persistently relevant as change is inevitable (Sutherland, 2020). Professional accountants play a critical role in providing professional judgement. For this judgement to be sound to stakeholders and clients, confidence in the implementation and reporting of principle-based standards are important. Accountants must be ready to serve their client by restoring and upholding the public's trust through their competen-

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cies, hence the need to adjust accordingly. The 4IR has brought inevitable changes and expectedly, for the next one-decade, massive changes will be felt in finance and business landscapes. There is therefore the need for incessant professional development programmes and competence frameworks to ensure accountants fit in. As the main goal of accountants is to serve business, clients and societies with accuracy and integrity, hence there is the need to advance skills and update competencies in order to stay ahead.

The role of accounting cannot be overemphasised, and there is a call for the need to integrate with the digital world to keep significant (Jackson & Meek, 2020). It is pertinent to say accounting information revolves around most of the enterprises' information systems, and it is utilised by the specialists of the administrative apparatus for economic analyses, planning, the compilation of various forms of reporting and auditing. It is worthy to note that accounting controls the target performance during the reporting period and provides information required to plan and forecast economic development. In fact, economic analysis is built on accounting data and reveals the need for managers to examine the reasons for any deviations from their plans. The reserves required for the improvement of efficiency in business activities and the check for legislative regulations that will enhance business relationships are identified and emphasised using accounting data (Turner, Weickgenannt, & Copeland, 2020). Further to this, overseeing economic development, environmental stability and statistical generalisations in a country require accounting data to be able to make reasonable decisions.

Based on all these roles, it is important to stress that the majority of companies have information systems that entail accounting information which centres on the receipt and utilisation of material and financial resources in accordance with the requests of users, both external and internal. These users have unique interests which accountants must endeavour to satisfy notwithstanding the changes in the digital world. Nevertheless, the immense development in information technology and the impact of 4IR have not displaced accountants (environmental management accountants inclusive). Despite the proposed ways of combating plastic pollution, it was discovered that the 4IR was not really taken into consideration and there are other measures that can be put in place. With the perpetual menace of plastic, it is high time the 4IR is taken into consideration to complement and fortify the present measures that are put in place. Hence, this book chapter will elucidate further on the impact of the 4IR on the environment of accounting in terms of plastic pollution control in South Africa and the well-being of accountants generally in this regard. This is the core area of attention now as the world is tending towards going green.

## **ACCOUNTING PROFESSION WELL-BEING IN THE ERA OF INDUSTRY 4.0**

Presently in the accounting sector, software and human-beings work together. The accounting profession is advancing using AI, machine learning and robotics. To be able to cope extensively, it is required of accountants to be more adaptive and advance their skills to retain stride with the mechanism. AI, machine learning and robotics are known to be free from human error and have advanced processing power, which has overridden the traditional accounting job. Notwithstanding, the demand for skilled and high-quality accountants are on the rise even though technological stands are swapping accounting jobs. It is worthy to note that AI generally aids professionals to learn, reflect and perform better. Despite the job insecurity risks posed by technological revolution, its numerous effects in accounting and in the finance sector cannot be overemphasised. According to a report by The Boston Consulting Group (BCG) in 2015, a prediction was made of a one-third job elimination by 2025 as a result of the evolution of smart

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