

The foreseeable impact of technology on quantity surveying

It is important to note that quantity surveying has played a critical role in the construction sector for centuries. However, the increasing use of digital tools and technologies will probably shape the future of quantity surveying. This will bring about new opportunities and altered role requirements from the clients. Modern technology allows quantity surveyors to automate more and be able to provide better insights and analysis, which will ultimately reduce project costs and improve project outcomes.

By [Nosiyabonga Mngane](#) 8 Jan 2024



Examples of modern technology include the adoption of cloud technology, Building Information Modeling (BIM) software, Artificial Intelligence (AI), and drones, which will assist quantity surveyors in storing and analysing large volumes of project data. The benefit is that quantity surveyors will be able to identify trends and patterns that will assist them in predicting project outcomes.

Another trend that will most likely impact quantity surveying is the growing call for sustainability and the concerns around climate change, which will result in more clients being more keen on finding ways of reducing their carbon footprint and also investing more in sustainable buildings. This move will provide new opportunities for quantity surveyors, as they will be expected to advise on the adoption of green practices to benefit both the environment and project costs. On the other hand, quantity surveyors will have to upskill themselves with the latest sustainability advancements to be of good value to their clients.

The impact this will have on the construction sector

Digital technology is a global phenomenon that has changed business processes within the construction industry. But the South African construction industry has been very slow to adopt modern technology compared to other industries. With the growing demand for climate change coupled with the use of new technologies, sustainable construction is becoming more attractive. It is important to realise the possible impact of the adoption of modern technology, which is improved productivity both on-site and off-site.

However, role players within the sector need to play a crucial role in promoting modern technology and green initiatives to reduce project costs and maintain project timelines.

Key lessons from 2023

The construction industry is one of the major sectors in our economy and will contribute nearly 3% of the overall gross domestic product in 2023, despite the challenges that it continues to experience. One of the major challenges of the industry is the country's inability to generate sufficient electricity with rolling out blackouts known as load shedding.

“ *Persistent load-shedding has threatened the growth of the construction industry.* ”

The industry relies heavily on electricity to generate power for machinery during construction and to produce materials. In the past few years, load shedding has disrupted work schedules, caused delays, increased costs, and forced contractors to reschedule their projects. It has also triggered instability and unreliability of power, which has resulted in decreased investor confidence and hindered businesses throughout value chains.

In 2023 we saw a prevalent impact of construction mafias on construction projects, which is a threat to the industry. These are criminal syndicates that pretend to be local business forums that are making it difficult for many construction companies to operate. This is a sad reality where they even claim to represent the interests of the unemployed and marginalised.

These construction mafias infiltrate and demand a share of construction projects, often leading to intimidation, vandalism, arson, theft, and violence. This has also led to delays and risks to the safety and quality of construction projects.

In recent years, the construction industry has also experienced a shortage of skilled workers. This affected the success and growth of the construction industry. That is, the demand for skilled labour continues to outstrip the supply due to the growth in infrastructure investment.

This skills gap has also contributed to project delays and longer completion times, reduced quality of work, higher labour costs, and lowered client satisfaction within the construction sector. This calls for the industry at large, both private and public, to be intentional about skills transfer through structured training programmes for the advancement of the sector.

Sector improvements in 2024

Experts have predicted significant growth for the construction industry, despite some of the challenges the sector will continue to experience. Growth in the sector will rest on robust plans and strategies to overcome these challenges:

- Resolving loadshedding at a national level is critical for the sector's future.
- Since material costs and shortages have a direct impact on the construction industry's ability to complete projects on time, businesses will have to diversify their supplier base to spread the risk. Where possible, companies should also invest in local production to mitigate the impact of global supply disruptions.
- The construction industry is also impacted by a mismatch between available construction workers and required skills. Therefore, closing the skills gap is crucial for achieving growth targets.

The construction sector can no longer afford to delay its adoption, which has the potential to grow the industry.

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