

# ILLUMINATE

BUILDING LEADERS THAT GO BEYOND



QUARTER 1 ISSUE | DATE: APRIL 2019



Prof Raphael Mpofu  
Executive Dean

## RECOGNISING THE RELEVANCE OF BUSINESS SCHOOLS IN TODAY'S DISRUPTION

*Professor RT Mpofu, Acting Executive Dean at Unisa's Graduate School of Business Leadership (SBL) which next year celebrates its fifty-fifth anniversary, weighs in on the current conversations around the declining value of the MBA and the impact on business schools in today's business environment.*

The current business education discourse is fixated on questions around the value of the MBA and its true benefit to the world of business. This is in light of reports describing a sharp decline in applications at many United States' business schools, with as many as 52% of programmes reporting a drop in application volumes last year.

The most extreme consequence of falling numbers is complete closure of the MBA programme, as evidenced at the University of Iowa's Tippie College of Business when it ended its two-year course in May last year.

As far back as 2006, the London School of Economics excluded the MBA qualification when it first launched its business department. Following suit more recently, King's College London sought not to offer the MBA programme when it launched its King's Business School in 2017, with the new dean (Stephen Bach) claiming that there was not enough interest in the programme.

A variety of factors touted as undermining the value of the MBA programme include the rising cost of tuition; competition from online MBA degrees and shorter, more accessible business courses; and even a drop in prestige. Perhaps the most important factor is its relevance in today's fast-changing, disruptive business environment.

Yet a mere five years ago the MBA took the top spot as the most popular advanced degree. What has changed?

Firstly, it is worth noting that declining numbers which are bandied about the media are localised to those developed education markets in the United States and the United Kingdom, and do not necessarily represent the broader picture. In 2018, there was an increase in applications in the Asia Pacific region by 8.9%, and in Canada by 7.7%. In European institutions there was a slight increase of 3.2%.

Secondly, it is worth considering the MBA in light of the changing face of business schools.

### Ensuring form follows function

The sophistication of business increased rapidly in the twentieth century as new markets were developed along with a growing workforce. Business schools saw the opportunity to leverage the gap in graduate education beyond economic theory and (the relatively-new) marketing discourse to provide a coordinated and systematic approach to business including varied and evolving disciplines from finance to human resources.

It should be borne in mind that the MBA was never designed as an intellectual product. The goal was to help the company transform, become more productive and profitable, and to add value for its shareholders. This was done by providing managers with a fair degree of education and good understanding of business, with skills that would enable them to implement strategic decisions across the spectrum of business operations. Particularly in the latter part of the last century, when 'big' businesses began expanding into new markets across the globe, the MBA became a sought-after and premium-priced qualification.

Today, the MBA remains relevant. Although companies now operate in an incredibly fast-paced market driven by flux and disruptive forces, business strategy must still lead to a certain result (amongst others, drive profit and derive shareholder value) based on certain decisions.

The difference lies in the tools of business. The twentieth century's linear production line has evolved into a complexity of automated processes that are increasingly harnessing exponential technologies such as artificial intelligence (AI) and big data. There is a growing mix of intellectual and intangible products that were not available a mere five years ago.

However, decision-makers are stymied if they cannot understand what the impact of new tools and technologies will be on their companies or departments. In this context it becomes a question of what content the MBA emphasises and how this content is taught. Any business degree – not just the MBA –

should be focused on introducing new specialised areas as their application becomes mainstream.

### Innovation trumps prestige

The relevance of the MBA leads into the discussion around the notion of business schools. I would posit that the United States, birthplace of the MBA, is clinging to an outdated notion of the prestigious business school from which a young graduate is guaranteed a C-suite future. "Why do we need 10,000 business schools in the world?" a Yale professor was quoted as saying in the Financial Times last year.

A recent article on business school rankings for 2019 noted that the list contained fewer ivy league universities. The reason cited was that these rankings no longer provide the schools with what they are looking for. Arguably ivy league schools are seeing a decline in numbers because prestige is losing ground to relevance and innovation, particularly given the cost of tuition at such schools. Business schools should be less about exclusivity and more on creating a compelling place for business learning.

As business dynamics change a number of schools are beginning to incorporate transformative programmes such as entrepreneurship and development. Interesting business school models are beginning to emerge. For example, the University of Toronto's Rotman School of Management, which produces the most MBA graduates in Canada, has a strong link to the university's school of commerce which enables shared resources and cross-pollination. This gives exposure of the business school's opportunities to undergraduates and is fast encouraging a new generation of post-graduate students.

### The South African context

As a business school, we cannot ignore the burning socio-economic crises in this country, such as our crippling levels of unemployment. We should be considering how research findings on job creation and unemployment can inform the fine-tuning of programmes such as the MBA to encourage innovative, solution-focused graduates.

For business schools and universities around the world, there is a growing interest in the development of business incubators for their students. This is also slowly beginning to take root in South Africa.

At the SBL we are collaborating with Unisa to form a post-graduate business incubator by 2020, that will focus on the areas of science and technology, agriculture and environmental sciences. Working closely with the university's other colleges we plan to develop a robust incubator model that combines business sciences with technical skills. By layering a programme such as the MBA with a specialist technical qualification will enrich knowledge that can ultimately support job creation. This is what our continent needs.

Additionally, business schools should look at extending their impact by working with key organisations that have a wide community reach. For example, the SBL last year committed to working with the National Federated Chamber of Commerce and Industry (NAFCOC). The organisation has a membership of 500,000 SMEs with the majority of members operating supermarkets in townships and rural areas; an economy that runs into billions of rands. In South Africa it seems to me to make good sense that as the custodians of business education, we focus less on prestige and more on innovation, working together with people who are key in driving economic development. The position is, we are a school of business, but we associate with your needs. Now that is relevance.

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Dr Gavin Isaacs  
COO

## LEADING BY EXAMPLE

Four months into his appointment as the SBL's COO, it is clear that Dr Gavin Isaacs has hit the ground running. What has undoubtedly helped, is that Dr Isaacs is no stranger to either the SBL or Unisa. Prior to taking up the position of SBL's COO, Dr Isaacs had worked at Unisa for over 16 years, occupying positions in the Directorate Music as well as the Examinations Division. In 2015 he was seconded to the position of Acting Director: Unisa Centre of Learning (UCL). In addition, he took on the role of project manager for the Examination Security Project from 2014 to 2015.

Dr Isaacs is a proud alumnus of the SBL, having gained his Doctorate in Business Leadership (DBL) with a focus on Change Management, Change Leadership and Organisational Behaviour.

**A born leader with a talent for guiding change and building administrative centres of excellence, the SBL is thrilled to have Dr Isaacs join the team.**

Dr Isaacs took the time to provide us with his insights into academia and leadership, as well as to share a little bit about what makes him tick.

### **Dr Isaacs, what changes over the past few years have you seen in the academic environment around management and administration?**

Over the last three years, the landscape of higher education has changed significantly as a result of student movements such as #Fees-Must-Fall and the subsequent announcement of free higher education for all. These were seminal moments that drove universities to consider critical issues beyond the notions of learning and qualification. For example, the considerations around access to higher education, acknowledging students' financial and socio-economic realities, and the more prominent role that the student is now playing in decision-making.

As few institutions were ready for the unexpected change to the status quo, there was a period of scrambling as they tried to make sense of the new reality. My experience of Unisa at the time was that it was one of those institutions that has always been able to adapt and would continue to adapt in order to remain relevant to its students. Unisa began very seriously to investigate strategies that would place the needs of its students front and centre.

### **Has this approach had an impact on the SBL?**

Most definitely. SBL took a strategic decision towards the end of 2018 to position itself as an institution driven by student-centricity.

To this end, we have initiated a dynamic process that will provide us with a 'barometer' of how students experience and interact with the SBL, and to fine-tune administrative processes and procedures around this. Our key point of departure is that while processes and policies are distinctly important, these should not impede the student's experience and ability to graduate from the SBL.

### **What do you hope to achieve in your tenure as the SBL COO?**

My goal is to help the SBL achieve our goals. Unisa is the only mega-institution on the continent and we want the SBL to be seen in the same light, as an excellent, highly efficient business school that can provide a valuable and enriching student experience.

### **What do you believe makes a great leader and what do academic institutions require of their leaders?**

Leadership is not a popularity contest. I like to say that while your presence may not necessarily be valued, at least your absence must be felt.

For me, leadership is about having the courage to make decisions. Sometimes those decisions may be the right ones; other times less so. Leading well is being able to weigh up the situation, make a decision with confidence, and then have the boldness to take responsibility for that decision.

I am also a firm believer in participative leadership. I like to involve my staff in decision-making processes because this empowers them and gives them a sense of responsibility which brings with it a level of accountability.

In the academic environment, a good leader is someone who is not only well-versed in leadership theory, but is that person who has been in the trenches and over time has been able to build up a 'lived' experience within the academic environment.

### **What critical aspects about staff do leaders sometimes overlook?**

Be aware that everyone learns at their own pace, and understand that the time it takes for you to do something might be different to that of your staff members. Listen, observe and practice patience in this regard.

Never underestimate the richness that can come from providing staff members with opportunities to grow and learn. You will see them flourish as they become aware of their own potential.

Often COOs are concerned that 'over training' staff will result in good staff leaving the organisation. They ask: What if we train them and they leave? I would ask the opposite: What if we don't train them and they stay?

### **Tell us about an important milestone in your career.**

When I was an administrative coordinator just beginning my Master's in Business Leadership (MBL), Unisa was developing its strategic plan for 2015. I wrote to the Vice-Principal responsible for strategy saying that I loved strategy and asked if I could be a part of the project. His response was no; finish your MBL and then we can talk.

It was serendipitous that the week I graduated, I literally bumped into the VP in the corridor at Unisa. I said to him, "Prof, you might not remember but three years ago I wrote to you, and you said that when I'd completed my MBL I could approach you. Well, I'm graduating this week; could I have a conversation with you?" He told me to make an appointment. The upshot is that he seconded me to a large project in the university involved in organisational architecture. This was the start of a significant chapter in my career.

### **What do you do in your down time?**

Both my wife and I have undergraduate degrees in music so there is always music in our house. My youngest son who is 14 plays the piano, and my older son, 19, who is currently studying medicine, plays the saxophone. Although there isn't much time for me to play the piano these days, I do play the organ at church. I also love a good fly-fishing outing in Dullstroom.

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## GENDER PAY DISCRIMINATION CASES LAG DESPITE AMENDED LEGISLATION

Prof Stella Vettori, from the  
Unisa Graduate School of Business Leadership (SBL)

The Employment Equity Act (EEA) known as the 'equality clause' was recently amended to make more explicit the remedy for unequal pay based on discrimination. Prior to this, the act did not specifically deal with wage discrimination on the basis of race or gender, despite the Labour Court having held that there were no reasons why equal pay claims should not be claimed in terms of the Act.

However, while discrimination, particularly gender pay discrimination, remains rife - very few claims based on inequality in terms of remuneration and other terms and conditions of employment have been instituted in the courts. In practice, a minimal number of claims of wage discrimination have been brought, despite evidence indicating widespread discrimination on these grounds. In part, this is a result of the significant evidential burden involved in linking a differentiation to a listed or analogous ground.

The major obstacle for claimants in making a claim, prior to the EEA having been amended, was due to the onus of proof being placed on the claimant. This meant that essentially the applicant would have to prove, for example,

a salary difference based on gender discrimination by following a process that required using a comparator employee and establishing a causal link between the unequal remuneration and a listed or analogous ground for discrimination. If the claimant managed to do this, the employer then bore the onus of proving that the discrimination was fair, in order to escape liability.

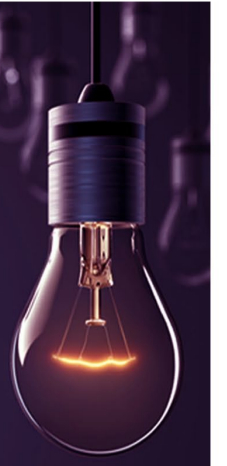
While the amended EEA leaves no doubt that claims for unequal pay based on discrimination can now be brought in terms of s 6(1) of the Act, are still shortcomings. Unfortunately, the law seems to address only one aspect of gender pay discrimination - situations where men and women do the same or similar work, or work of similar value. The law does not address certain factors that contribute to gender pay discrimination, such as the concentration of women in sex-typed jobs such as cleaning or care-giving, which are concentrated in lower-paying occupations. Nor does it acknowledge the disproportionate share of low-ranking positions by women, or the low earnings relative to those of men with similar training and experience.

I do however believe there are legislative solutions. Prescribing the criteria and the methodology for assessing work of equal value can conceivably go a long way to enabling the identification of gender discrimination in sex-typed jobs and low-ranking positions. Additionally, fair wage adjustments could be accomplished by subjecting jobs to a rational evaluation that would assess their 'worth' in terms of outputs, including skills and responsibilities of the work itself. Ultimately, such a code may encourage pay equity by raising pay levels for occupations in which women predominate.

Despite South Africa having adopted a sophisticated rights-based legislation that promotes equality, including that of gender, the fact remains that gender discrimination has deeply-embedded roots that come from the socio-cultural dictates of all groups in South Africa. While legislation provides a solid foundation for redress, there are other important factors in the prevention of gender-based discrimination. The law alone cannot do this and sharing knowledge around gender biases and barriers in the workplace, such as laws around equal pay, will enable ordinary employees

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Prof Nhlanhla Cyril Mbatha

## EXPROPRIATION HAS MUDDIED THE LAND REFORM FIELD; DON'T EXPECT A WIN

As the land debate cautiously manoeuvres its way towards the end goal of articulating the grounds under which there can be land expropriation without compensation in section 25 of the South Africa's Constitution, Professor Nhlanhla Cyril Mbatha, a professor within Unisa's Graduate School of Business Leadership (SBL), cautions that critical questions have been overlooked within the debate. He says that re-wording section 25 known as the 'the property clause' may not provide the much sought-after solution to land that is anticipated by South Africa's communities.

A separate committee has been established in parliament to begin the process of redrafting section 25 of the constitution. This after both houses of the legislature have agreed to adopt the joint constitutional review committee's (CRC) report which recommends that section 25 of the constitution be amended to allow land expropriation without compensation. The National Assembly wants to settle the issue of amending section 25 to allow for land expropriation without compensation by 31 March 2019, before the mandate of the current parliament expires.

With so much attention placed on land expropriation without compensation, the core problems of land redistribution, restitution and tenure security that have defined the past 25 years have been largely overlooked.

The critical points that should have been included in this debate are why land transfers have moved so slowly - and just how slowly have they been over the last 25 years? And why is it that so many land reform projects have been unsuccessful?

### Compensation not pivotal to land redistribution challenges

It is important to consider that land expropriation without compensation is one aspect of the land reform programme. Evidence points to the fact that compensation has not been the stumbling block in land reform in the majority of land transfers and projects.

In the body of research that has emerged

within the last 15 years on land ownership and tenure, there has not been a recorded case where financial compensation to current land owners was the obstacle to land expropriation. While there have been reports of instances where seemingly a great deal of money was paid to game farms, for example, this has never been a general trend.

Nevertheless, allegations brought against farmers, prior to the 2005 Land Summit, suggested that farmers had inflated land prices over market value in cases of both redistribution and restitution. Despite these allegations, research evidence has not supported the allegations.

For example, of the 34 sugar cane farmland cases transferred under the redistribution programme in northern KwaZulu-Natal in the early to mid-2000s (reported in 2010) the prices paid for farmland did not indicate higher than market related premiums having been paid to sellers.

In March 2018, the Minister of Rural Development and Land Reform, Ms Maite Nkoana-Mashabane, said that government had spent R50-billion to acquire 4% of total registered land. Her statement in fact points to the fact

that prices for land acquired under the land reform programme have been much lower than those expected in land markets.

Four percent of agricultural land is more about 4.4-million hectares in size. The price of vacant land in remote areas currently varies from R50 000 to R200 000 per hectare. Hence this means that 4.4-million (4% of agricultural land) would at a minimum have cost government R220-billion (and at most R880-billion) in market value. Therefore, the reported value of R50-billion for 4% of land registered under Black ownership indicates that the land acquired within the land reform programme has not been overpriced. Additionally, this 4% of registered land is below non-official estimates of about 7 million hectares of land that has been transferred under the land reform project. This implies that

about 3 million hectares of land may have been transferred without formal title deeds for formal registration. Alternatively, it illustrates how government agencies have not kept good land registration records for the reform. The land registration is obscured further by land under traditional leadership, whose occupants do not have title deeds.

Moreover, a spending of R50 billion over 25 years on land acquisition indicates the land reform project over the years did not receive government's highest priority. In relative terms, R50 billion is only about 2,2% of the fiscal budget of 2018 alone. In the same 2018 budget, government was able to set aside R57 billion as an emergency fund for higher education, but less money has been spent on land acquisitions over a period of almost 25 years.

Land redistribution hamstrung by poorly managed administrative processes

The establishment of the Office of the Valuer-General in 2014 in terms of the Property Valuation Act (Act no17 of 2014) with the mandate to support the programme of Land Reform through providing independent and credible property valuation services is another indication that government agencies understand that problems in land reform have mainly been procedural in nature and not financial. For example, government valuation agencies would take up too long to finalise the valuation process. In some reported cases the processes would conclude three years after initiation, by which time market prices have gone up. This too does not support claims that demand for financial compensation at above market prices has been the problem.

What we know is that the non-financial issues, some of which have been listed above, would still need to be addressed, even if the constitution can be amended. For example, the backlog of outstanding cases at the SA Land Court, need to be finalised. These were estimated at more than 20 000 cases after 2014. Community issues around the collective management of acquired land resources must be addressed as well. For example, these are issues that derail projects where disputes are never settled among community members regarding who forms part of lists of beneficiaries and who does not and who should or can represent communities in decision making bodies such as Community Property Associations (CPAs). Such community disputes plague processes before claims are lodged, during hearing and even after land resources have been transferred to communities.

### Looking beyond expropriation without compensation

To conclude, research has not highlighted expropriation without compensation (or even inflated land prices) as the key challenges to fair and timely land reform in this country. Rather it infers that it is issues of poorly implemented administrative processes, inadequate capacity and an astounding lack of government support, including financially as illustrated by comparatively merge fiscal budget allocations, that impede the process.

If these issues are not adequately acknowledged for what they are and addressed properly; there is no hope in building a sustainable, workable land reform programme, with or without compensation for expropriated land. A lack of meaningful funding and poorly conceived and weakly implemented processes that have given rise to backlogs and bottlenecks will not automatically fall away, no matter how the wording of the property clause may change.

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## BRUCE WHITFIELD TALKS THRIVING IN CHAOS AT THE UNISA GRADUATE SCHOOL OF BUSINESS LEADERSHIP ALUMNI BREAKFAST

Earlier this month, the Unisa Graduate School of Business Leadership (SBL) hosted an alumni breakfast that called on South African businesses, entrepreneurs and innovators to harness uncertainty and chaos in order to find solutions to this country's grave economic challenges.

Setting the tone for the event was SBL's Executive Dean, Professor Mpofu, who said in his welcome address that the impact of blockchain technology in the world's economies, for example, was a compelling example of a disruptive technology. "This technology has the potential to solve some of the chaos in the world. Major companies such as Apple, Amazon, Google and Microsoft are beginning to experiment with how it can be utilised."

Guest speaker Bruce Whitfield, well-known journalist and host of Talk Radio 702's "Money Show" delivered keen insight in his talk "How to thrive on the edge of chaos". Whitfield shared exclusive interviews with the leaders of significant local businesses such as Shoprite, Bidvest, Investec, Nando's, Massmart, Discovery, MTN, Vodacom, Aspen, FirstRand and Naspers.

"It is interesting to realise that the leaders of these companies were once disruptors who were driven to establish businesses in times of chaos, amidst challenges brought about by policy and political vagary. Perseverance and innovation have seen these companies grow into what are now stalwarts in South Africa's economy," said Whitfield.

He later challenged the audience to seek opportunities in the chaos rather than capitulate into despair about a future that is becoming increasingly hard to predict. "Everyone is frightened by the uncertainty but sometimes you have to take risks and make bold decisions."

In concluding Whitfield said, "Our country faces its biggest challenges yet and South Africans must dig deep to find the courage to start businesses despite the surrounding chaos. It is only through this that we will see jobs created in any meaningful way, and which in itself will reduce some of that chaos in South Africa's economy."

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## SUPPLY CHAIN VULNERABILITY: DEVELOPMENTS, TRENDS AND IMPACTS

Ozias Ncube Senior Lecture: Supply Chain Management, Member of the Alumni Association Executive Committee

### INTRODUCTION

Supply chain design has assumed significant importance recently because of vulnerability of supply chains. In particular, complex supply chains are susceptible and hence vulnerable to various disruptions. Although some disruptions occur infrequently, it is imperative that their profile be examined, so as to understand the extent of impact on supply chain performance, with at-times disastrous consequences for the different supply chain players. This article will attempt to present a brief insight on latest developments on supply chain vulnerability, trends regarding dominant vulnerabilities and provide some suggestions on how to profile disruptions that may cause realisation of these vulnerabilities.

### DEVELOPMENTS AND TRENDS

Complexity in supply chain arises depending on a number of elements. It can either be due to: (1) global supply chains – implying either global supply, global distribution networks and or global markets. This creates multiple points of contact within the chain, with particular “at risk” view to logistical challenges, cultural changes, global financial systems and appropriate legal and legislative frameworks applicable to manage supply chain relations. (2) technology – in particular the desire for integration and collaboration. However, the extent of the development and adoption of technology and appropriate management systems to complement the integration objective is rarely homogenous throughout the chain. There are pockets of excellence and some players are always lagging behind. This disturbs information flow and affects supply chain visibility. (3) Innovation – in particular with respect to adoption of cloud enabled capabilities, utilization of drone and related technology of the 4th Industrial Revolution (4IR) Era, for example. However, these tend to draw labor force resistance as sub-Saharan Africa, as “developmental states” lean more towards labour-intensive supply chain operations. (4) knowledge and skills gap – with a significant number of multi-national entities’ supply chain headed by either non-nationals and or non-Africans, this appears to

be a huge exposure with many of the sub-Saharan Governments displaying nationalistic tendencies and not renewing expatriates permits beyond the initial 3 – 5 year periods.

It is clear that (1) is unavoidable. This is a growing trend in supply chain as organisations seek cheaper supplies and growing markets. The focus may probably be about streamlining and re-orienting the supply chain to be lean and responsive. (2) and (3) above present both opportunities and huge vulnerabilities. With regards to opportunities, 4IR creates space and platforms to leap-frog forward by modernizing utilisation of supply chain resources while effectively dealing with stakeholder concerns around sustainability – societal and environmental impacts. Cloud-enabled technologies provide wider capability, and maximises opportunities for supply chain visibility without worrying about bandwidth constraints and other related soft “constraints”. However, while the benefits are clear, it is the corresponding cyber-security scare that is of much concern, hence the classification as a vulnerability. Of-late, there has been a marked increase on cyber security attacks in the supply chains, mostly focused on changing contractual terms, hijacking and re-routing of delivery, changing of product characteristics and flagrant flouting of customs and excise duty procedures. There has been instances where supply chain entities are locked-out of their systems for ransom payments before access is granted. This definitely requires a closer look and appropriate mitigation be determined.

With regards to the knowledge and skills gap, I believe knowledge transfer mechanisms are in place, personal development plans for the identified personnel have been (or need to be) put in place for accelerated development in-line with each country’s skills development legislation. Liaising with supply chain professional bodies, accredited training service providers, and recognised education programs does provide an out-of-company solution that is credible.

### IMPACTS AND MANAGERIAL CONSIDERATIONS

However, in general, it is important to identify what may cause realisation of these vulnerabilities so as to put measures in place for mitigation to ensure resilience. Many analysts use different tools and methodologies. For this discussion, I have chosen to discuss a methodology derived from H. PECK (Resilience Centre, Department of Defence Management and Security Analysis, Cranfield University). The approach views vulnerability and resilience from 4-parameter perspective: (i) risk sources; (ii) consequences of risk sources; (iii) risk drivers that turn risks into consequences; (iv) strategies that address the risks

In this case, vulnerability is understood to be the exposure to serious disturbance arising from risks within the supply chain and risk being losses associated with undesirable outcomes. It is important to be able to identify and characterise the disruptions that may cause realisation of vulnerability. In this case disruption is considered to be any outcome of a process whereby one or more events (referred to as “triggering event”) taking place at one point in the supply chain adversely affect the performance of one or more components located elsewhere in the supply chain. The factors of policies to be used to determine reaction (mitigation) to ensure resilience may be grouped as follows: (a) information related policies; (b) buffer related policies; (c) alternate sourcing policy and (d) Component substitution. The suitability of the approach will be influenced by the supply chain’s realities. Whichever approach is chosen, it has to be monitored with regards to its strategic impact on the following goals: (a) lead time; (b) cost; (c) quality, and (d) flexibility. Organisations can add other indicators that are also reflective of their reality over and above these baseline four.

In my opinion, if this can be done, then it is safe to say the organisation has sufficient capability to cope with vulnerability and ensure resilience.

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## SBL APPOINTS PROF TUMO KELE

Tumo Kele is the Associate Professor – Management Services at the University of South Africa's Graduate School of Business Leadership (SBL). Before joining SBL, Prof. Kele was the Director – Centre for Business Analysis and Research at the University of Pretoria's Gordon Institute of Business Science (GIBS) where he was tasked with management and fund raising for corporate research projects. He is a co-author of a Statistics textbook that is currently used in four universities in the country. Prof. Kele is widely published in news media, academic journals and a book and he often feature on radio stations and television news media. He has a vast experience in 'on-the-ground' research on business in the townships and small towns and also diaspora business. To this end, in his previous role, he has designed and delivered an immersion module for the MBA students. The module that won an international prize in 2015 at the AACSB. Prof. Kele has taught, as visiting faculty, at Strathmore Business School, Kenya and Vlerick Business School in Belgium and he is a seasoned presenter in international conferences. Through his teaching and professional consulting, Prof. Kele is committed to understanding how business schools can better develop immersion modules to better prepare responsible graduates to deliver on the United Nations' Sustainable Development Goals.

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## CAN SOUTH AFRICA LEARN LESSONS FROM THE MEGA MISTAKES OF ESKOM'S MEGA PROJECTS?



Prof Makgopa Tshehla

*What can we learn from the Medupi and Kusile power station projects where mega mistakes have cost the country billions? Professor Makgopa Tshehla of the Unisa Graduate School of Business Leadership (SBL), who has significant expertise in project costing and project management of mega construction projects, considers aspects of the Kusile power station project that provided crucial warning signs from the beginning.*

Both Medupi and Kusile power stations continue to come under fire as poorly managed projects that remain years behind their completion dates amidst drastically rising costs that now stand at R300-billion, by conservative estimates. Despite being the most expensive projects in the world, these stations are reportedly failing in reliability, achieving a 40% rate at best.

It was anticipated that Kusile power station, situated in Mpumalanga, would consist of six 800-megawatt coal-fired generating units to generate a total capacity of 4,800 megawatts. The sizeable project, which was expected to come on stream in six years, included financial support from numerous institutions including European, American, Japanese and local banks, credit agencies and investment funds. However, six years into the project Kusile had only synchronised the first unit in December 2016. Full commercial operation of Unit 1 was reached in August 2017. Although the commissioning of all 6 units is anticipated by 2021, it is highly unlikely.

Minister of Public Enterprises, Pravin Gordhan, told Parliament in February that quite simply, Medupi and Kusile were badly designed and constructed and that an independent audit by external power station engineers was required to ascertain exactly what the issues were in order to fix the mess.

Given the sheer scale of the project from the outset, there was no question that building Kusile would be a complex undertaking. There would be over 50 different contractors on site requiring coordinated project oversight and critical cost and timeline management.

**Exogenous shock shifted Kusile timeline**  
Despite its incredibly high stakes, the project when it started, did so in haste. The year 2008 marked South Africa's introduction to load-shedding. Suddenly, the long-term impact of growing consumption that would outstrip capacity created a wave of urgency and

the pressure was on to begin Kusile's development in earnest.

In retrospect this was the first warning sign, the consequences of which would only emerge some time later when it was discovered, amongst other design defects, that the site's geotechnical aspects (the branch of civil engineering that considers the behaviour of earth materials) had not been properly examined, resulting in flawed reports; potentially as a result of an accelerated process.

### Concretising roles and responsibilities

Amongst the 17 banks and three export credit agencies that provided financing to Eskom was the Export-Import Bank of the United States (Ex-Im Bank), which in 2011 approved a \$805.6-million loan to Eskom to finance a US-based company to be their execution partner on Kusile. The well-known company which boasted strong mega-project credentials was to provide planning, engineering and design services, construction and contracts management, claims and procurement management, and health and safety management services.

Early on a question mark began to form over the international team's capabilities - another important warning sign - but it was a number of years before the company was quietly downscaled.

Insiders at Kusile suggest that a lack of satisfactory project controls became apparent early on in the project (inter-related areas of schedule, cost and scope). For example, the baseline schedule; the immovable reference that enables an accurate variance to be established between planned and actual time and cost, was found to have been revised numerous times.

Additionally, rudimentary mistakes were discovered such as the inclusion of non-critical elements in the critical path which pulled attention away from those items critical to ensuring that the work sequence could seamlessly advance.

### The cost implications of delayed contractor access

With over 50 contractors expected to converge on the Kusile development site project, experienced project management would be required to manage multiple overlapping tasks and timelines. It would also be expected that built-in contingencies to mitigate the risk of delays would be an important feature of the project management.

Yet as delays began to creep into Kusile, the sequence of work backed up (another warning flag) and a number of contractors found themselves unable to access the site on their contractually agreed start dates. The contractors were entitled to begin charging Eskom from stipulated start dates, regardless of whether or not the work had been initiated. Consider that contractors themselves, with their own supply chains, would have begun to incur costs from capital equipment hire, labour costs and other materials and resources provided by sub-contractors.

### Claims and variations

Control over the essential aspects of Kusile began to unravel, and Eskom's project teams were faced with multiple issues on all sides, including a significant number of contractor claims made against the utility. Root causes stemmed from inadequate planning, poor engineering designs and interface issues leading to cost and time implications and delayed or no access to the site.

An unforeseen cost was contractor claims for the storage of overseas-manufactured equipment that could not be brought onsite as a result of delays. Such equipment had to be stored offshore or in local storage by the contractor including preservation and testing, a costly undertaking.

### Stakeholder management

The site was complex and dynamic. In addition to the number of contractors and sub-contractors involved on site, a large number of consultants were hired to deliver solutions

for personnel productivity, who failed to meet their mandates.

Insufficient stakeholder management eventually led to labour unrest; yet another project shortcoming that had expensive and time-consuming consequences.

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### Solutions to the red flags

My view is that one of the main problems with mega projects such as Kusile, is that Eskom issued numerous tenders and had to manage diverse contractors. Instead, one tender should have been issued for an Engineering, Procurement and Construction (EPC) contract.

The EPC contractor is made responsible for all the activities from design, procurement, construction, commissioning and hand-over of the project to the end-user or owner. It is up to the EPC to issue other local scopes to sub-contractors and ensure management of local stakeholder skills.

In addition, a transversal project management approach should have been incorporated given its suitability for managing large and complex projects. Transversal project management cuts across different functions and management practices, moving beyond the traditional top-down approach to encompass different hierarchies and functions.

If roles and responsibilities are not absolutely outlined in comprehensive contracts, grey areas can lead to disaster. As Deputy President David Mabuza told Parliament recently, the contracts for both Kusile and Medupi were poorly structured. The result was that Eskom had to carry the cost of overruns and frequent delays in the building of the two vast power plants with no penalties levelled at the partners.

If an expensive international executing partner is going to be used, a rigorous due diligence is essential and should include lengthy discussions with previous clients and other industry stakeholders. There should be a visible track record of successful delivery in other jurisdictions besides their own, as well as a comprehensive skills transfer plan developed and adhered to, with the executing partner's input scaling down as the project progresses.

Geographical context and ways of working are also worthy of consideration. Eskom's international execution partner proved unable to work seamlessly with the local team. In addition, there appeared to be little investment by all major parties into developing an understanding of local contractor and labourer needs.

Finally, delays are early-warning symptoms of the deeper malaise. Contractors denied access to the site at their start dates was a red flag pointing to the serious overruns that would ultimately lead to significant cost implications and contractor disputes. Comprehensive scenario planning, accurate scheduling and ongoing analysis can pre-empt, resolve or escalate the reason for the delay.

### Conclusion

In February, Eskom general manager for group technology Titus Mathe reportedly stated that R8-billion would be needed to fix the design defects at Medupi and Kusile. If defects had been addressed during contract stage (which includes a defect period) this sizeable cost could have been avoided.

While the design flaws are a highly significant aspect of Kusile, a cautionary note is that this is not the only reason for the project's shortcoming. There are other critical contributing factors, such as hasty and insufficient scoping, inadequate risk management and poor interfacing and stakeholder management.

If these lessons are not taken into account, future mega projects on this scale in South Africa will fail to deliver better outcomes.