

# DO STATE-OWNED ENTERPRISE LEADERS HAVE THE DESIRED QUALITIES TO LEAD IN A COVID-19 TRIGGERED VUCA ENVIRONMENT: A CASE STUDY OF ESKOM SOUTH AFRICA

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## ABSTRACT

*Managing and leading through a crisis and volatile environment requires a very different and unique leadership quality. Limited scholarly work exists on leadership at state-owned enterprises (SoEs) in South Africa and leadership qualities for successfully leading in a volatile environment during a black swan event, like the Covid-19 pandemic. This research seeks to determine if the leadership qualities perceived to be important and possessed by the leaders at Eskom align with the leadership qualities required for a volatile, uncertain, complex and ambiguous (VUCA) environment. Using a mixed-methods research design, the study surveyed a total of 65 senior managers and 45 employees at Eskom, an SoE in South Africa that generates and supplies electricity, using an online survey platform. The study found that the leadership qualities identified by senior managers at Eskom aligned to the qualities for a volatile environment; however, the top five qualities that managers perceived as most important do not align fully to the leadership qualities found to be successful in leading through the pandemic while the employees views and the content analysis results indicate otherwise.*

**Keywords:** Coronavirus, Covid-19, Employees, Eskom, Leadership, Qualities, Senior Managers, South Africa, VUCA.

## INTRODUCTION

The Covid-19 virus pandemic in 2020 that brought the global economy to a near standstill, with stock markets crashing and pushing economies into situations worse than the Great Depression of 1929, is an ideal example of the uncertainty surrounding businesses and leaders in the 21st century. The numerous leadership models had proven to be archaic as they were not created taking a black swan event, an infrequent, unpredictable event that occurs unexpectedly with dire consequences, like the Covid-19 pandemic, into consideration (Proches, 2020). Organisations, both public and private, found that their business models and strategies became outdated as they weathered the storm. Leading through this prolonged crisis of such a large magnitude resulted in leaders and society “*feeling a loss of control, disorientation and severe emotional disturbance*” (D'Auria & De Smet, 2020). Before the Covid-19 pandemic and nationwide lockdowns, many organisations like Eskom did not employ remote working or communication mediums like Skype, MS Teams, Zoom in their daily communications structures. Many processes had to become automated, requiring more significant investment in information technology systems and their staff's upskilling to use these new technology processes and mediums. People often worked in silos and with management being more of a top-down approach. Communication was often one-way, and leaders did not necessarily understand their worker's needs, challenges and emotions. The Covid-19 pandemic has demonstrated that leading in a VUCA environment requires a leadership approach relevant to today's wicked problems and

not with that of yesteryear thinking approaches. Wicked problems are problems not easily defined, are unstable and unpredictable with no clear solution. Peter Drucker very eloquently stated that *“The greatest danger in times of turbulence is not the turbulence; it is to act with yesterday's logic”* (Drucker, n.d). This was evident during the pandemic, where leaders were trying to use yesterday's logic and leadership frameworks created during a very different time and context to solve the challenges presented by the coronavirus pandemic.

Scharmer purported this sentiment in 2007, where it was postulated that due to the varying degrees of complexities and uncertainties causing immense chaos in society, organisations need leaders to *“operate from the highest possible future, rather than being stuck in the patterns of our old experiences”* to manage the chaos. However, current leadership behaviours depend on patterns of past actions (Scharmer & Kaufer, 2013), which is not the best way to lead in an environment overcome with VUCA. Haedrich (2020) writes that although organisations are slowly returning to some kind of new normality, greater demands are being placed on the leaders' role post the Covid-19 crisis. The crisis has revealed much gapping weakness in leadership competencies. Competencies that were once successful before the crisis had proven ineffective in managing and leading through the crisis, writes Haedrich (2020). Traditional leadership theories and leadership styles were found to be outdated to navigate through and post the Covid-19 pandemic, with Dileep (2020) postulating that Covid-19 has allowed leaders to rethink their existing business, operational and leadership models.

LeMaster (2017) postulates that for leaders and organisations to succeed in the knowledge era characterised by VUCA, they need to be adaptive, innovative, change their mental models, be agents of change and embrace diversity. They also need to *“embrace opposition and criticism with truly open minds, listen closely to our perceived adversaries, put self-interest aside, and work together to achieve “the greater good” for our organisations, our people, and our social systems”* (Le Laster, 2017). A sense of collective accountability, responsibility, and leadership for the greater good seems to permeate post the crisis. Geerts (2020), says very eloquently, *“there is perhaps no greater need for, or measure of, leadership than during a crisis.”* Volini et al. (2020) state that for leaders to be effective during Covid-19, they need to prioritise their mental health and that of their team members and subordinates. They can only lead if they are in the correct frame of mind. During Covid-19, things changed every day, at times, every hour (Volini et al., 2020). D'Auria and De Smet (2020) acknowledge that at times on the spot/immediate action is required; however, they do advise managers during a crisis to be in a cycle where they constantly *“pause- assess-anticipate-act.”*

State-owned-enterprises (SoEs) like Eskom, a key entity to the South African economy and the only supplier of electricity to the country, operating in this current market is not immune to these changes. There have been numerous challenges plaguing the power utility Eskom, namely: rising debt levels, mismanagement, corporate governance issues, coal shortages, disgruntled employees demanding higher salaries and damaging power plants and disrupting services, poor staff performance, and ageing as well as failing plants resulting in load shedding and increased costs, that have resulted in many stakeholders questioning the sustainability of the state-owned entity (MJO, 2018; Omarjee, 2019a; du Toit, 2019; No Author, 2019; Modise, 2020; White 2020). These challenges have been further compounded by the challenges presented by the Covid-19 pandemic. Thus, Eskom also requires leaders who are agile, adaptable, flexible, decisive, responsible, accountable, ethical, visionary, proactive, innovative, and strategic whilst also displaying integrity, empathy and humility. They must be able to motivate their teams to a shared vision to deliver on the SoEs mandate to gain a competitive advantage in the market they

are operating in despite the surmountable challenges they are faced with. Having leaders with the right leadership qualities, experiences, knowledge and education in strategic positions are vital to address the current challenges of an SoE like Eskom face (LDC, 2016; Volini et al., 2020; Kok & van den Heuvel, 2019).

To date, there has been no empirical research into leadership at SoEs in South Africa or leadership qualities that are relevant for leading a complex entity like Eskom in such VUCA operating conditions. The Covid-19 pandemic crisis has given leaders at Eskom an ideal opportunity to reassess their leadership qualities for the 'new world' that the virus has created. Leadership during a crisis, especially during a black swan event like the Covid-19 pandemic, is under-researched. Against the backdrop of this research gap, this study will determine the level of importance senior manager placed on leadership qualities deemed necessary for leading in a volatile environment like the Covid-19 pandemic, and if there is an alignment between what they perceive as important and what qualities their employees perceive they possess.

## RESEARCH METHODS

The research methodology adopted for this study was mixed-methods. The exploratory research design was guided by the interpretivist, and post-positivist paradigms (Creswell & Creswell, 2018; Žukauskas et al., 2018) was selected for this study as it explored if the leadership qualities perceived to be important by the leaders at Eskom aligned with the leadership qualities required for a VUCA environment.

The target population (366) consisted of senior managers and their employees at Eskom. An online questionnaire was chosen as the most suitable instrument in terms Eskom's policy and regulation regarding research conducted by parties external to the organization as well as the data collection was amidst the Covid 19 pandemic. No language barriers existed as all respondents were well versed in English, and no special concessions were required. The data from MSForms was exported into an excel spreadsheet, cleaned and coded. The qualitative data was analysed using content analysis. The quantitative data was analysed using the Statistical Package for the Social Sciences (SPSS) 22.0. Inferential statistical analyses were performed on the data. Ethical clearance was obtained from the Humanities and Social Sciences Research Ethics Committee of the University of KwaZulu Natal (HSSREC/00001143/2020) and Eskom. Each participant in the study had to accept informed consent before part-taking in the study. The participants were informed of the purpose of the study, their ability to end the survey at any time, and they were assured of their anonymity and confidentiality in this study (Rahi, 2017 and Saunders et al., 2019).

## DISCUSSION OF RESULTS

The Covid-19 pandemic has tested leaders, governments, and society at large, their levels of resilience, agility, flexibility and emotional intelligence. In addition, the severity of the pandemic's impact on the institution/organisation/businesses varies based on the respective leadership responses.

### Leadership Qualities

Twenty leadership qualities that were deemed prominent for a leader to have in a VUCA environment as per literature review (Moore, 2015; LDC 2016; Van Velsor et al., 2016; Daigle, 2017; Donkor & Zhou, 2019; Towler, 2019; Centre for Creative Leadership, 2020), were rated in terms of importance by the managers. A One-sample T-test was applied to test for significant

agreement/disagreement (results checked using the Wilcoxon Signed Ranks Test, and no differences were found in the concluding results). The results of the One-Sample T-test for the leadership qualities presented in Table 1 indicates that all qualities are significantly important,  $p < 0.005$  at a 95% confidence level. Leaders at Eskom agree that the five most important qualities, in rank order, a leader should possess to successfully lead in a volatile environment are:

1. Honesty, integrity and trustworthiness;  $M=4.97$
2. Being able to set a clear vision and direction;  $M=4.94$
3. Being able to embrace diversity and change;  $M=4.86$
4. Being able to think clearly under pressure and communicate effectively;  $M=4.86$
5. Being able to think conceptually, holistically and strategically;  $M=4.86$

Item	n	Mean (SD)	t	df	p-value
1 Being able to set a clear vision and direction	65	4.94 (0.242)	64.531	64	$p < .0005$
2 Being able to embrace diversity and change	65	4.86 (0.348)	43.118	64	$p < .0005$
3 Being resourceful and information seeking	65	4.58 (0.497)	25.725	64	$p < .0005$
4 Being direct while at the same time composed	65	4.55 (0.730)	17.172	64	$p < .0005$
5 Being able to build and mend relationships	65	4.49 (0.687)	17.501	64	$p < .0005$
6 Honesty, integrity and trustworthiness	65	4.97 (0.174)	91.225	64	$p < .0005$
7 Being able to act in a decisive and timely manner	65	4.80 (0.474)	30.594	64	$p < .0005$
8 Being flexible, adaptable and versatile	65	4.60 (0.581)	22.204	64	$p < .0005$
9 Being able to communicate effectively and in transparent manner	65	4.80 (0.506)	28.668	64	$p < .0005$
10 Reflection and Self-awareness (of personal strengths and weaknesses)	65	4.62 (0.604)	21.546	64	$p < .0005$
11 Working collaboratively and interactively with others to solve problems and plan ahead	65	4.69 (0.498)	27.420	64	$p < .0005$
12 Being respectful, compassionate and sensitive	65	4.62 (0.654)	19.910	64	$p < .0005$
13 Being open to and accepting differing view points	65	4.68 (0.533)	25.342	64	$p < .0005$
14 Being able to empower, equip and enable others	65	4.65 (0.571)	23.246	64	$p < .0005$
15 Being innovative, taking risks and having novel ideas	65	4.51 (0.640)	18.981	64	$p < .0005$
16 Being positive, upbeat, and optimistic	65	4.43 (0.706)	16.329	64	$p < .0005$
17 Being responsible, accountable and goal orientated	65	4.77 (0.460)	31.013	64	$p < .0005$
18 Being able to think clearly under pressure and communicate effectively	65	4.86 (0.348)	43.118	64	$p < .0005$
19 Being able to think conceptually, holistically and strategically	65	4.86 (0.348)	43.118	64	$p < .0005$
20 Being agile (responsive), alert and proactive to changes	65	4.77 (0.460)	31.013	64	$p < .0005$

Exploratory Factor Analysis (EFA) was performed on the 20 leadership quality items to explore its structure. Two factors were extracted, which accounted for 61.403% of the data variance. The factors were Strategic Collaborative and Ethical Accountability and its associated leadership qualities are displayed in Tables 2 and 3 below.

Factor	Label	Items included	% variance explained	Cronbach's alpha	CR	AVE	MSV
Strategic Collaborative	SCL	9, 11, 13, 14	50.432	0.867	0.866	0.623	0.444
Ethical Accountability	ETH	6, 7	10.971	0.483	0.677	0.518	0.444

Factor	Leadership Qualities
<b>Strategic Collaborative</b>	9 Being able to communicate effectively and in a transparent manner
	11 Working collaboratively and interactively with others to solve problems and plan ahead
	13 Being open to and accepting differing view-points
	14 Being able to empower, equip and enable others
<b>Ethical Accountability</b>	6 Honesty, integrity and trustworthiness
	7 Being able to act in a decisive and timely manner

To verify the structure of these factors, a Confirmatory Factor Analysis was performed to test if there was a good fit of the constructs. Fit indices of ratio  $\chi^2 /df$ , CFI, IFI and RMSEA all indicate a good fit. Analysis of the reliability and validity shows that reliability and convergent and divergent validity were achieved throughout. Statistical testing using a one-sample t-test was done on these factors to test for significant agreement/disagreement, Table 4. Significant importance (agreement to the statements) was shown for all the quality groupings where the p-value was <0.005 at a 95% confidence level.

One-Sample Test							
	t	df	Sig. (2-tailed)	Mean Difference	n	Mean	Standard Deviation
<b>SC</b>	30.793	64	0.000	1.70385	1.5933	1.8144	30.793
<b>ETH</b>	52.383	64	0.000	1.88462	1.8127	1.9565	52.383

Note: at a 95% confidence level

However, the literature on the key qualities leaders need for a VUCA environment like the Covid-19 pandemic paints a slightly different picture to what the Eskom managers believe are important for a VUCA environment like the Covid-pandemic. The common thread running across various literature sources (Joy (2021); BDO (2020); Deloitte (2020); Palmer (2020); The Rebuilders (2020); USB-ED (2020)) on the key qualities a leader should possess were:

- Empathy, compassion, composure & support
- Self-reflection & mindful work
- Communication, collaboration, open to new ideas & learning
- Health & positivity
- Flexibility, adaptability, agility & decisiveness
- Transparency, authenticity, trustworthiness & accountability

- Strategic, visionary & anticipatory
- Being mentally, emotionally and physically present
- Re-prioritising of targets/projects & setting achievable goals

Although the top five qualities managers ranked as most important for a volatile environment did not align fully with the qualities Covid-19 literature had cited, the open-ended question findings tell a different story. Based on the open-ended question on the senior managers' leadership approach during the pandemic, content analysis revealed that managers found themselves having a greater disposition towards their staff in terms of improved teamwork, collaboration, communication and consulting. They were more empathetic, supportive and understanding towards their employees. They listened more; there was greater trust in the team and they were more agile, flexible and adaptable. They rallied the team together and looked for new ways to ensure the outcome was achieved. They handed more responsibility and accountability to their team members, which further built trust and motivation in the team. They reprioritised tasks where possible and focused on the goal, and frequently had communication calls to check how everything was progressing with their work and mental wellbeing. Some managers found themselves doing more reflection and deep thinking and was better able to sense and understand the staff's emotional wellbeing and challenges; thus they were more mindful in their approach. Qualities of creativity, innovation, risk-taking, decisiveness, timeliness, resourcefulness and the ability to set a clear vision and direction were not so evident.

These essential qualities that had emerged from the qualitative data corroborate with quantitative results of the One-sample T-test for the leadership qualities presented in Table 1 that indicated all leadership qualities were significantly important,  $p < 0.005$  at a 95% confidence level as well as with literature findings for leading in a complex, volatile, crisis environment. Thus, indicating that the senior managers at Eskom do possess most of the qualities and traits required to lead in a VUCA environment. The senior managers have displayed vital traits common to Complexity Leadership Theory, Theory U, Integrative Thinking, Ethical Leadership, Authentic Leadership, Transformative Leadership, Entrepreneurial Leadership, Crisis Leadership, Servant Leadership, Reflective Leadership, Awakened Leadership, Strategic Leadership and RARE Leadership.

To establish if there are similar perceptions of what senior managers perceive as important leadership qualities and what their employees perceive they possess. An Independent Sample T-test was performed on the data to test the equality of the means across the two groups. The p-value for all items are significant,  $p < 0.005$ . It is important to note that the senior managers rated on importance while the employees rated on possession.

The scales were different; however, it is comparable as the scales (interval) were a Likert scale 1 to 5, with 1 being the least important/strongly disagree and 5 being the most important/strongly agree and the questions were identical. The analysis was done to test if these perceptions differ between employees and managers. The results of the independent t-test were cross-checked using Mann-Whitney, and the p-values did not change. The higher the mean values, the more AGREEMENT and IMPORTANCE it indicates.

Results from the Independent Sample T-test are significant ( $p < 0.005$ ) indicating that managers placed higher importance on all the qualities than what their employees had agreed as to the qualities they had perceived their managers had possessed. The mean scores for the managers for all the qualities were higher than that of the employees.

**Table 5**  
**LEADERSHIP QUALITIES COMPARISON – SENIOR MANAGERS AND EMPLOYEES**

Leadership Qualities	Average importance rating of quality as perceived by SM (n=65)	Ranking (most (1) to least (20) important)	Average agreement rating of quality possession by SM as perceived by EMP (n=45)	Ranking (most(1) to least (20) possessed)	P-value
B6 Honesty, integrity and trustworthiness	4.97	1	3.8	3	p<0.005
B1 Being able to set a clear vision and direction	4.94	2	3.51	17	p<0.005
B2 Being able to embrace diversity and change	4.86	3	3.49	18	p<0.005
B18 Being able to think clearly under pressure and communicate effectively	4.86	4	3.56	13.5	p<0.005
B19 Being able to think conceptually, holistically and strategically	4.86	5	3.64	9.5	p<0.005
B7 Being able to act in a decisive and timely manner	4.8	6	3.4	20	p<0.005
B9 Being able to communicate effectively and in a transparent manner	4.8	7	3.53	14.5	p<0.005
B17 Being responsible, accountable and goal orientated	4.77	8	3.76	5.5	p<0.005
B20 Being agile (responsive), alert and proactive to changes	4.77	9	3.58	12	p<0.005
B11 Working collaboratively and interactively with others to solve problems and plan ahead	4.69	10	3.62	11	p<0.005
B13 Being open to and accepting differing viewpoints	4.68	11	3.8	3	p<0.005
B14 Being able to empower, equip and enable others	4.65	12	3.8	3	p<0.005
B10 Reflection and Self-awareness (of personal strengths and weaknesses)	4.62	13	3.64	9.5	p<0.005
B12 Being respectful, compassionate and sensitive	4.62	14	3.87	1	p<0.005
B8 Being flexible, adaptable and versatile	4.6	15	3.71	8	p<0.005
B3 Being resourceful and information seeking	4.58	16	3.73	7	p<0.005
B4 Being direct while at the same time composed	4.55	17	3.56	13.5	p<0.005
B15 Being innovative, taking risks and having novel ideas	4.51	18	3.44	19	p<0.005
B5 Being able to build and mend relationships	4.49	19	3.53	14.5	p<0.005
B16 Being positive, upbeat, and optimistic	4.43	20	3.76	5.5	p<0.005

According to Table 5, the findings indicate differing perceptions of what senior managers perceive as important to them to have and what the employees perceive they possess. Honesty, integrity and trustworthiness (B6) are ranked as most important for senior managers, while

employees felt that the quality that the leaders possessed most was B12 - being respectful, compassionate and sensitive. Honesty, integrity and trustworthiness (M=3.80); being open to and accepting differing viewpoints (M=3.80) and the ability to empower, equip and enable others (M=3.80) the employees ranked it as being the second most possessed qualities. It becomes worrying as we move up the ranking, with senior managers indicating being able to set a clear vision and direction (B1), being able to embrace diversity and change (B2) and being able to think clearly under pressure and communicate effectively (B18) were the next three most important qualities for them while the employees ranked it at the opposite end of the scale at 17, 18 and 13 respectively. Employees rated managers the worst – 20<sup>th</sup> – as not being able to act in a decisive and timely manner, while managers perceived this as the 6th most important quality for them.

## CONCLUSIONS AND RECOMMENDATIONS

The findings can conclude that leadership qualities perceived to be important by the Eskom leaders align with the leadership qualities required for leading in a VUCA environment. The top 5 qualities that managers perceive as most important for a volatile environment do not align fully with literature findings on the key qualities specifically required for leading during Covid-19, but they align with the general findings of leading in volatile, complex environments. However, in terms of possession, their employees' responses indicate somewhat that the senior managers possess qualities more aligned to what is required for leading during the Covid-19 pandemic, namely: respect, compassion, sensitivity, honesty, integrity, trustworthiness, responsibility, accountability, goal-orientation, flexibility, adaptability, versatility, resourceful, open and accepting of others views, empowering and the ability to thinking strategically, conceptually, holistically and be able to self-reflect and be self-aware. Thus, the senior managers at Eskom may not have rated the qualities required for leading during a VUCA environment like the pandemic as most important but have unconsciously displayed these qualities as they lead their team during the pandemic.

Bearing in mind that the study was limited to a single country, South Africa, and a single SoE, Eskom. Thus, similar studies must be conducted on other SoEs in South Africa and abroad to determine if a correlation in the findings exists and increase the generalisation of the findings.

## REFERENCES

- Center for Creative Leadership. (2020). What skills will leaders need in the future? Turn VUCA around. Retrieved from <https://www.ccl.org/articles/leading-effectively-articles/leadership-skills-for-an-uncertain-world/>
- Centre for Creative Leadership. (2020). Leadership skills in an uncertain world. Retrieved from [https://www.ccl.org/articles/leading-effectively-articles/leadership-skills-for-an-uncertain-world/?utm\\_source=external-](https://www.ccl.org/articles/leading-effectively-articles/leadership-skills-for-an-uncertain-world/?utm_source=external-)
- Creswell, J.W., & Creswell, J.D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches (5th ed.)*. USA: Sage Publications.
- Daigle, J.L., & Matthews, B.L. (2017). An evaluation and application of complex adaptive leadership: A fuzzy logic and neural network approach. *The Journal of International Management Studies*, 12(2).
- D'Auria, G., & De Smet, A. (2020). Leadership in a crisis: Responding to coronavirus outbreak and future challenges. Retrieved from <https://www.mckinsey.com/business-functions/organization/our-insights/leadership-in-a-crisis-responding-to-the-coronavirus-outbreak-and-future-challenges>
- Deloitte. (2020). The heart of resilient leadership: Responding to Covid-19 A guide for senior executives. Retrieved from <https://www2.deloitte.com/us/en/insights/economy/covid-19/heart-of-resilient-leadership-responding-to-covid-19.html>



- Dileep, K.M. (2020). Reflective Leadership in Crisis. *Horizon Journal of Humanities and Social Sciences Research*, 2(1), 11-18.
- Donkor, F., & Zhou, D. (2019). Complexity leadership theory: A perspective for state-owned enterprises in Ghana. *International Journal of Educational Leadership and Management*, 7(2), 139-170.
- Drucker, P. (n.d.). Retrieved from <https://www.azquotes.com/quote/521436>
- du Toit, P. (2019). 1922 - 2019: The rise and fall of Eskom. Fin24. Retrieved from <https://www.fin24.com/Economy/1922-2019-the-rise-and-fall-of-eskom-20190213>
- Geerts, J. (2020). Leadership Lessons and Hope for a Post-Crisis World. *BMJ Leader*. Retrieved from <https://blogs.bmj.com/bmjleader/2020/04/30/leadership-lessons-and-hope-for-a-post-crisis-world-by-jaason-geerts/>
- Haedrich, J. (2020). Positive leadership in crisis situations. *Deutsche Lebensmittel-Rundschau*, 11(8), 321.
- Joy, E. (2021). The future of leadership: Skills to look for in business leaders post-COVID-19. Talent Management Chief Learning Officer. Retrieved from: <https://www.chieflearningofficer.com/2021/03/11/the-future-of-leadership-skills-to-look-for-in-business-leaders-post-covid-19/>
- Kok, J., & van den Heuve, S.C. (eds.). (2019). Leading in a VUCA world, contributions to management science, LeMaster, C. (2017). *Leading change in complex systems: A paradigm shift*. Unpublished doctoral dissertation, Antioch University, USA.
- MJO, O. (2018). Eskom and its 2018 woes: Five major problems the power utility is facing. Timeslive. Retrieved from <https://www.timeslive.co.za/news/south-africa/2018-12-10-eskom-and-its-2018-woes-five-major-problems-the-power-utility-is-facing/>
- Modise, K. (2020). SA'S Electricity Problems 25 Years In The Making – Expert. What will it take for Eskom to be able to supply the entire South Africa with power? EyeWitness News. Retrieved from <https://ewn.co.za/2020/09/05/sa-s-electricity-problems-25-years-in-the-making-expert>
- Moore, D.L. (2015). Leadership in the 21st Century Environment: A Proposed Framework. Retrieved from <https://www.secnav.navy.mil/innovation/Pages/2015/05/LeadershipIn21stCentury.aspx>
- No Author. (2019). Panel of experts to assess Eskom's challenges. SANews. Retrieved from <https://www.sanews.gov.za/south-africa/panel-experts-assess-eskoms-challenges>
- Omarjee, L. (2019). Hadebe tries to allay fears of job losses in internal Eskom memo. Retrieved from <https://mg.co.za/article/2019-04-16-hadebe-tries-to-allay-fears-of-job-losses-in-internal-eskom-memo>
- Palmer, W.J. (2020). 10 Traits of Highly Effective COVID-19 Leaders. Retrieved from <https://www.diagnosticimaging.com/view/10-traits-of-highly-effective-covid-19-leaders>
- Proches, C.G. (2020). Order in disorder (opinion piece of how the global pandemic, Covid-19 had impacted the job of the leader and the workforce).
- Rahi, S. (2017). Research design and methods: A systematic review of research paradigms, sampling issues and instruments development. *International Journal of Economics and Management Sciences*, 6(2).
- Saunders, M., Lewis, P., & Thornhill, A. (2019). *Research methods for business students. chapter four: Understanding research philosophy and approaches to theory development (8th ed.)*. Harlow: Pearson Education Limited.
- Scharmer, C.O. (2007a). *Theory U: Leading from the future as it emerges*. Cambridge: The society for organisational learning.
- Scharmer, C.O. (2007b). Addressing the blind spot of our time: an executive summary of the new book by Otto Scharmer: *Theory U: Leading from the future as it emerges*. Retrieved from <https://studylib.net/doc/13618977/addressing-the-blind-spot-of-our-time-c.-otto-scharmer>
- Scharmer, C.O., & Kaufer, K. (2013). *Leading from the emerging future: From ego-system to eco-system economies*. San Francisco: Berrett –Koehler publishers.
- The Rebuilders. (2020). This is the most essential skill leaders need to work through the COVID-19 crisis. Fast Company. Retrieved from <https://www.fastcompany.com/90494094/this-is-the-most-essential-skill-leaders-need-to-work-through-the-Covid-19-crisis>
- Towler, A. (2019). Complexity Leadership: Understanding organisations as dynamic and complex systems of social interactions. CQNET. Retrieved from <https://www.ckju.net/en/dossier/complexity-leadership-complex-dynamic-organisations-social-interactions/32050>
- USB-ED (2020). 6 leadership qualities that matter during a pandemic. University of Stellenbosch Business School. Retrieved from <https://usb-ed.com/blog/6-leadership-qualities-that-matter-during-a-pandemic/>
- Van Velsor, E., Turregano, C., Adams, B., & Fleenor, J. (2016). Creating tomorrow's government leaders. An overview of top leadership challenges and how they can be addressed. Retrieved from <https://www.ccl.org/wp-content/uploads/2015/04/creatingGovernmentLeaders.pdf>

- Volini, E., Schwartz, J., Roy, I., Hauptmann, M., Van Durme, Y., Denny, B., & VanSlyke, S., & Simons, A. (2020). Leadership in the COVID-19 crisis: The importance of building personal resilience. Control Risks. Retrieved from <https://www.controlrisks.com/our-thinking/insights/leadership-in-the-Covid-crisis>
- White, R. (2020). De ruyter: Discipline needed at eskom power stations. Retrieved from <https://ewn.co.za/2020/09/04/de-ruyter-discipline-needed-at-eskom-power-stations>
- Žukauskas, P., Vveinhardt, J., & Andriukaitienė, R. (2018). Philosophy and paradigm of scientific research. Management culture and corporate social responsibility, IntechOpen. Retrieved from: <https://www.intechopen.com/books/management-culture-and-corporate-social-responsibility/philosophy-and-paradigm-of-scientific-research>