

# Noveshan

Thank you for agreeing to this interview, your feedback is valuable, and greatly appreciate you taking the time to provide insights into this research. The title of the research is “Exploring Data-Driven Decision-Making in Uncertainty”. During the year of 2020, most of the world suffered the effects of a global pandemic caused by SARS-CoV-2, a virus that causes the disease named COVID-19. This pandemic not only disrupted life as we know it but brought about a significant amount of uncertainty in the business world.

This pandemic, coupled with other experiences have inspired this research, aimed at to exploring and understanding whether data-driven decision-making, as a technique, can be practically applied to offer value to organisations in times of uncertainty as opposed to traditional techniques, supported by research and literature, such as heuristics. So therefore the objective of this study is to:

- Understand the level of knowledge, understanding and perception of, as well as attitudes of South Africa senior executives' towards data-driven decision-making in times of uncertainty;
- Determine to what extent South African senior executives use [big] data to make decisions in times of uncertainty;
- Identify the challenges South African senior executives encounter when using [big] data to make decisions;
- Provide the guidance on whether organisations should be placing reliance on [big] data for decision-making for improved performance, protection and/or creation of competitive advantage during periods of uncertainty.

This research and interview are exploratory in nature. With that, I wish to encourage you to speak freely and take comfort in knowing that whilst we will use the information shared in this interview, your identity as the provider of this information, shall remain confidential and anonymous.

You are welcome to withdraw from this interview at any time without prejudice. Please also be advised that we intend on using a third party to transcribe this interview for us and have ensured that confidentiality and anonymity will still be maintained through the use of a Non-Disclosure Agreement for this exercise.

May I kindly ask you to sign this consent form and confirm that you are comfortable with me recording this interview using an audio and/or video recording device.

Yes, I am comfortable.

Thank you. So I am going to jump straight to it, I am going to send you this just so that you can sign for me digitally after the interview, but just to kick off, please provide some information on your organisation and your role? So that is current roles and responsibilities.

**To kick-off our discussion, please provide me some information on your organisation and role:**

**So that is current roles and responsibilities, the level in the organisation, the company industry/sector, company age and size of company via turnover or staff compliment.**

So the company I work for currently is BMG, I am a commercial financial manager. The organisation is involved in the selling of bearings through to the mining/industrial sector – so it is majority focused in the industrial sector. It is part of a bigger group, the bigger group is Invicta Holdings, it's a company that was started around... I would say about 30/35 years ago, it is a JSE listed entity (the holding company), it is very industrial-based, BMG stands for Bearings Man Group, so you know it's use of bearings in more the manufacturing side of the business; so it is a larger volume scale business, and that drives the business actually. And ja, that is pretty much... the number of individuals in the organisation, you know I don't know the rough estimate, I would say it is around 5500 to 6000.

**That's a big organisation!**

Ja.

**Thank you very much for that. Then as we proceed now, uncertainty relates to constant change, hard to predict scenarios, and ambiguous, conflicting, unavailable or unreliable information. I think simply put, that can be described as unknown unknowns you know? So the question that comes with this is how has COVID-19 contributed to the use of data in your decision-making, if at all?**

I think you know the big point that has come out of COVID is the analysis of data. So historical data, it is the analysis of data that has already been recorded. So it's historical data that has been the primary source for COVID actions going forward. What has really driven the organisation that I have seen from a commercial and a financial manager position within the organisation, is that looking at the numbers in terms of staff employment costs, cost saving initiatives, areas of shaving the cost base in order to make the business sustainable for the foreseeable future. So you know looking at all the numbers according to ... the main data that we have been looking at is more looking at the GDP projecting going forward, what is the economy going to do in terms of our revenue growth, and also in terms of our revenue shrinkage as well. So that is directly related through to our operating expenses, and that is how we have shaved our operating expenses accordingly. But COVID you know, it is as you

said, an unknown, so we don't know how the recovery is going to take post-COVID; you know we knew at the time of the COVID and the related lockdowns that happened in SA, that activity levels were down after the first month of COVID, was down 82% compared to the budget or the plan number. So looking at that you are looking at about 17.5% of activity took place. And then thereafter I mean the activity levels are increasing as the lockdown...

**... is easing up.**

Ja, but would we ever get back to those levels that we were pre- 26 March 2020? You know I can't say that at the moment, because there has to be a recovery path, but how long will that recovery path take? We don't know, but we have to take mitigating actions.

**Exactly. So just to echo the initial sentiments there, I think it is unknown at this stage?**

Ja.

**Okay, so data-driven decision-making refers to the use of data to support the decision-making process and I suppose a lot of decisions that most organisations are making now are geared towards exactly what you say, the recovery path and forward looking, as opposed to historically based. So how and when do you rely on data when making decisions in uncertainty? Back in the day, part of it was semi-certain, that is why you could probably project a budget of X, where against now in hindsight you could measure we have only managed 17.5% of what we projected, based on historical stuff – and that was maybe a more certain environment. And now, in uncertainty how and when would you rely on data when making decisions?**

I think the majority of decisions, I would like to use the 80/20 rule here, I think 80% of the data we would use from.... 80% of the decision making would come from the data itself, and the models that are being constructed, but I think the 20% or 25% would come from the customer relationships, the knowledge of the market, what is happening currently around us – competitors, suppliers, industry activity. So it is also I think part of data collection as well, but it is more ... I would say 80% is like firm information, like concrete information we have, and the other 20% is more like your qualitative information that you have a relationship with the customer, and the customer then says you know they have a project that is coming up, that the finalisation will take place in the next five months, but then you see you ramping up your production facility in order to meet the customers demands in the five month period,

the next five months. So it's a combination. You can't solely just depend on the numbers or the data, the historical data or even the data that we have currently, but it is a combination. It is a combination.

**Okay, and organisation wide, how does the organisation as a whole make use of data during these times of uncertainty?**

Ja, data is a priority! I think daily dashboards with sales numbers, you know it is driving the discipline and the behaviour within the organisation. Individuals haven't earned a .... we are currently on a no work no pay policy at the moment, so you know guys are coming back online or coming back and working 8 to 5 you know schedule, and now they are trying to push the targets, so it is driving, the data is driving the discipline and the behaviour of the organisation. You know we have a lot of sales commissions that are paid out, your sales individuals, so they are driving those targets because they want to get back to those levels, so they are trying to achieve their targets. So in order to achieve their targets they are pushing quite desperately, but at the same time we are keeping them honest by showing them in the month where they stand, year to date, where do they stand in the quarter. But also what we are using with the data is we are seeing what is our fast consuming goods, like fast moving consumable goods in the industrial sector, so that we can prepare for the upturn in the economy. So we can see there is a big increase in certain bearings of a certain product line. So ja, because you know the economy now from a medical supply point of view, the medical supply industry has really increased, due to COVID, and also mining is increasing so there is a lot of...

**...supply to those industries.**

Ja. But also you know there are a lot of industries now that are sweating their assets. So with them sweating their assets it means that they are not changing the assets as fast as possible, so they are now repairing their assets, and they are actually using more of our bearings! But what we have also noticed in this current environment, is that customers are coming through to us with different requirements. So we are now offering a product line that we weren't offering before, and it was something that we never thought of offering. But the customer has come through to us to ask about this. So it is using the information from the customers and making sure our organisation is more dynamic and innovative and sufficing the customers' needs, but using the data. Of course, because we are getting so many customer

requests for a certain product line, we have now investigated the possibility of introducing it to the market.

**Okay! Okay! I just want to touch on something else that you mentioned earlier, being the discipline, right?**

Yes.

**I assume that that discipline also works in favour of the organisation because it gives some form of accountability in terms of why certain decisions were made, if you base them on data I suppose? Like right now when you are saying being dynamic, it is basically customers have come and said this and that, so it is not like you just walked out on a limb and just started offering products out of the blue; it is driven by some form of information and some form of data.**

Ja, it is about information collection, so it is about data collection. So you know because we have a relationship with the customer we now are collecting that information and then it goes up the line to the executive management to say 'You know what, this is what the teams are coming out with from the customers, and these are what they require.' So I mean if we want to stay in the game and be a competitor and be a force to be reckoned with in the market, this is what we need to do. So the data is driving the decisions but you know I think as you have said, the data is also, we need it for ... we have gone through a Section 189, so the retrenchment process in our company, and in order to go through it we needed to have the numbers to justify our decisions, because we have a lot of individuals that work in the labour, that are registered with the labour unions such as Solidarity and you know, the labour unions around SA. And the Metal Workers' Union as well. But we had to have the numbers to justify that if we don't trim the fat of the organisation or the excess cost of the organisation, meaning head count, we will not be a sustainable organisation. So the result will be a further, a closure of the company. I am just saying, that is a drastic move, but I mean it is a closure and that will result in 5000 employees being unemployed in SA! So you know it is that type of negotiations that we take to the party, that we take to the round table and say 'This is what needs to take place.'

Quite interesting! And I am looking now at this Section 189 decision that had to be made, a lot of heavy reliance on data there because you need to justify it to the unions, etc. What sort of challenges or obstacles do you experience when making data-driven decision making? I mean the context of this is in times of uncertainty, no-one really knows what is going to happen, so if you take this to a union for instance and they say, 'But what if it actually doesn't happen?', what are some of the challenges you experience?

So with data itself you know I would say the data integrity is something that I always question. In organisations such as my own and a lot of organisations in SA or JSE listed companies, you know you have a lot of systems, and that is where the information gets fed into, and gets interpreted differently – I would say that. And the integrity and accuracy of the data is very important, you know that is a challenge, that has been a challenge, because we have a number of subsidiaries, and a number of subsidiaries on different ERP or enterprise resource management systems. So you know to get the data in one format and understand the data. It is good when you are running a business during a normal environment or economic environment, you know you just look at the high level number, but when you drill down into the detail it is where the detail is really required in order to make a decision.

**Okay.**

So from my point of view it would be the data accuracy and the integrity. And then when you are taking it through to the unions, this is just as an example but will allude even to executive management, it is packaging the data in a format, in a readable format to individuals who are not financially or financially-driven individuals; you need to dumb down the number I would say, and bring it down to the simplest format. So sometimes it has its challenges in terms of communicating it through to the individuals.

**Okay, the sort of literacy of whoever has to interpret that data.**

Yes.

**You have to make it as simple to comprehend as is possible in order for it to actually make sense to whoever, right?**

Ja, I use a bit of a colloquial word there, saying 'dumb it down', but it is not dumb it down, it is more bring it to the simplest format so that it is understandable to all.

**Absolutely. Absolutely. And so any other challenges you experience?**

I think then also you know when you take it up to executive management level, and senior management level, everyone is looking at it from a different point of view. So to get the coherency in the organisation to all be thinking along the same lines, is where the challenge comes in. I mean you know for instance a person in operations will push to have more operational individuals, even during this Section 189 he will start to push. And then a person who was a functional area or a cost centre in the organisation such as the finance, he also wants his stuff to be there, because whether you do one transaction or ten transactions, the same number of finance stuff is still required because a report still needs to be produced at the end of the day.

**Correct.**

And decisions still need to be made from that report. But if you don't have the individuals who make the report, how do you do it? So you know it is everyone fighting for their functional area in the organisation, but the compromise comes in now, is that objectivity.

**Exactly. So I was about to say what that sounds like to me is more of an appreciation for data and the insights obviously that the data is providing, but definitely a subjective sort of approach to whatever decision has to be made – and I suppose what you are saying from an objectivity perspective, all decisions that are based on data are not entirely debatable – if I could say – would you say they help?**

Ja, I would say it helps, the data you know drives the decision, the data is more ... you know it gives you that yes or no answer, that yes or no answer, but with all decisions you have got to remember you can't only base it on the quantitative data.

**Absolutely.**

So there has to be qualitative data, and sometimes the qualitative data cannot be contacted and it has to come from experience and it has to come from asking that relevant question. I will use an example as well, like for instance selling a vehicle through to an employee, the company is now considering to make a profit out of it by selling it to a third party instead of selling it to the employee. But I mean if you don't sell it to the employee at a... there is a bit



of a .... the employee becomes disgruntled as well. So you have got to look at it not only about making a profit, but making a sustainable profit.

**I think that is a great example, and I suppose it is not just about one thing, so if we need to realise that profit X as data suggests, well go ahead and sell a car to the third party at a profit. But then whereas if you sell it to an individual maybe some of the benefits that come with that can't be easily identified upfront, things like employee motivation, loyalty, that discretionary effort that we can't entirely measure and say 'Oh, there is so much discretionary effort to that sort of thing' – if I understand where you are coming from.**

Ja. 100%. You hit the nail on the head there. But I think what I have also seen in my organisation as well, is that the decision is driven by past experiences as well. For instance if someone has seen certain things along the line or have experienced certain situation, that drives the decision to think about the qualitative angle as well, to bring that through to the discussion. If the person was not exposed to it, that data is not available (laughs)

**Ja, absolutely. Which then informs my next question, which is despite the challenges – I mean we have mentioned data integrity which is always a challenge with anything that relates to data, as well as ambiguity in terms of making it very comprehensive and comprehensible to all who is using it and all of that stuff, have you gained any benefits from using data-driven decision-making as a technique in times of uncertainty? I think you did mention one, which I think is the objectivity that comes with a data driven decision – that clear yes/no.**

Ja.

**Are there any other benefits that you guys have experienced, since for instance, relating to the COVID-19 period? All the decisions that you have made based on data, have you gained any real benefits from that?**

So you know from a financial benefit we are seeing the financial gains come through, with the decisions we have made based on the data. The issue that now comes in is that we are seeing it because it is evident in the income statement/balance sheet. But when the economy turns, what then happens? Do we reverse the decisions that we have made in the past? So that is the challenge we are sitting with currently, is that now we are seeing the benefits, but you

know, what happens going forward as well. And then we are also looking at what is happening to our current staff as well. Like because I am focusing more on the section 189 at the moment, we are now trying to also understand what is happening with our HR as well, from an employee wellness and all that type of thing. So it is actually trying to collect, it has become heavily driven data decision making environment that we are in at the moment.

**Hm.**

So the advantages I would say, there are a lot of advantages, but at the same time there is a lot of learning that is taking place, there is a continual learning that is taking place with us. Just when you think you are on top of it, something else comes about. So it is the adaptability of all departments, through to data. It is just not a finance driven decision; it should be employed like a registered idea for every department or functional area of the organisation – HR, IT, you know – so that you show the benefit as well, but ja, I can tell you the data has brought up a lot more newer themes that have come about in the work place.

**Is it. Okay. Okay.**

Ja.

**So based on the above, it seems like there has been some benefit, and there is obviously challenges that come in realising this benefit. What do you think can be done to enhance the use of data-driven decision making in uncertainty; both at an individual level and organisational level?**

So I think a big idea to me from an individual point of view is that data is driving the world, so you need to have data at your finger tips, but at the same time you need to have data that is readable and interpretable and that is understandable as well. Those three concepts – if it is not readable, understandable, interpretable, I mean...

**You have data that is not useful at all.**

It's irrelevant.

**It's irrelevant.**

I am collecting it for the sake of collecting but I am not using it. **That is the mindset.** So from my point of view, from an individual's point of view, I think you need to not be stuck in your ways, I think you need to be more proactive in terms of data analytics, and it is empowerment of the individual, I think data is empowering individuals to make decisions, but also it is giving them that head start in the organisation. I mean you know if you have a certain... if you know something and you can present this through to management or executive level, they can see the initiative you have taken, they can see where you are coming from, and they can also start ... you also furthering the company as well. But from an organisational point of view I think we always had data, the problem was we never used it correctly, we never packaged it correctly. So when we rolled out ERP systems, so this is from a financial or from a customer point of view, we got this large amount of data which was written into tons and tons of reports, but those reports were never streamlined and were never streamlined according to the period or time that we were in. So that is why it never became interpretable to an organisation. So now you know I worked at a German forklift company where they said that on SAP they had 2500 reports.

### **Shoo! That's a lot!**

Ja, they had 2500 reports that were being produced on a monthly basis, but executive management were only looking at 5! So you know the linkage from EXCO right down the line needs to be... So if there is a report it needs to say yes there is a report, but how does this link through to EXCO? Because EXCO is making a decision based on 5 reports (I am just using that as an example now). So how does my one report at my level, impact EXCO? A linkage needs to be identified, and that is where we don't have the linkage between the lower level staff and the higher level staff. It's the linkage, it is the understanding, that my input into the data has this impact at a higher level. So you know it also brings about a different discipline, it brings about a discipline of accuracy, a discipline of ensuring that the right number is being put in. Because the decision can go really south very quickly if it is the incorrect data! (laughs)

**Ja, ja.**

So that is my take on an individual and organisational level.

I just want to go back to what you were saying and I just want to be sure I am understanding it the way you intend it to be: So this linkage between the lower as well as the upper, what exactly would be the issue there? Is it a culture within the organisation where higher levels or mid levels or lower levels work independent of one another, like a silo type of working and thinking? Or is it lack of clarity in the bigger picture so to say? So if I am lower level and the only thing that I know is that I am supposed to for example re-stock on toilet paper for instance, only X number of times per month hypothetically, with that full understanding what is the purpose of us actually making it X number of times? So in your experience what do you think is the lack of, or the issue around that?

Ja, I think the lack is usually a lack of understanding. So there is a lack of transparency in the organisation with a lack of understanding, and I would say also it is communication in the organisation; constantly communicating the importance of each one's role and how it impacts the organisation. I think the communication also is lacking. And then I would say those would be the issues, but you can't expect someone who is ordering toilet paper to know what is happening at a CEO level, but then you have a micro- and macro- understanding. So you have got to make them aware at their level, so you have to simplify it.

Ja, and I suppose coming back to what you said earlier. So I like the transparency, I like the communication, and by that what it sounds actually is more of coming back to what you were saying about you can have data but if it is not understandable for whoever is using that information.. I mean if you are given a KPI to say 'you need to do this or that X number of packs of toilet paper per month', without actually stating *why* you actually need to do that. Because ja, the micro- and macro- levels they speak to one another but if from a simple man or reasonable man perspective in terms of organisation wide, if those micro- and macro- factors are not clearly communicated and made as transparent as possible, so 'the moment you go over X packs we start eating into our profit' – which I think is what the CEO is concerned about.

Ja. I think you have summed it up pretty well, that is exactly where my head is at and where the organisation is at as well.

Sounds good. So at this stage I have exhausted all the questions I had, I don't know if you would want to revisit any of the items we have covered already or we are good to go?

No, I think we are good to go! I think you have captured most of the information from the data itself, and ja, I think it was a good interview!

**I appreciate your time, and if for whatever reason you need maybe a copy of this recording, it can be made available.**

Thank you.

**So from me, I thank you very much for your time and we will definitely use this very useful insight in hopefully making a change and making better decisions in the business world.**

Ja, sure. Thanks so much.

**Thank you. Bye.**

Cheers.

**Ends.**

## Interview Schedule “Consistency Matrix”

Research Question (RQ)	Interview Question (IQ)
<b>RQ1:</b> What is the South African executive’s perception of data driven decision making in times on uncertainty	<b>IQ2:</b> How has COVID-19 contributed to the use of data in your decision-making process?
<b>RQ2:</b> How is big data and big data analytics used for decision-making times of uncertainty by South African executives?	<b>IQ4:</b> How does your organisation make use of data during times of uncertainty?
<b>RQ3:</b> What are the obstacles and challenges of using data for decision-making times of uncertainty?	<b>IQ5:</b> What sort of challenges or obstacles do your experience when making use of data-driven decision-making in times of uncertainty?
<b>RQ4:</b> What conditions encourage and enable the use of data-driven decision-making in times of uncertainty?	<p><b>IQ2:</b> How has COVID-19 contributed to the use of data in your decision-making process?</p> <p><b>IQ3:</b> How and when do you rely on data when making decisions in times of uncertainty?</p> <p><b>IQ7:</b> Based on the above, what can be done to enhance the use of data-driven decision-making in uncertainty, both at an individual and organisational level?</p>
<b>RQ5:</b> What is the impact (advantages or disadvantages) of data-driven decision-making in times of uncertainty?	<b>IQ6:</b> Despite the challenges and/or obstacles, have you gained any benefits from using data-driven decision-making as a technique in times of uncertainty?

