Talent reflections - data science and digital transformation

By Kagisho Reid, Managing Director of TA & Badira

Our data science webinar session brought some key insights to the fore. It highlighted the need to build a common programming language as well as data science capabilities across an organisation – in both technical and other business teams.

Data Scientist, Ronald du Toit, reflected that 'there is a hype in data science and, in general, digitalisation, that is partly driven by a data boom, rise in computing power and maturing machine learning amongst other things. The question is, are the teams who are responsible for these technologies and business interventions, living to the hype?'

Ronald further reasoned that **data science capabilities** should not only be the burden of the technical teams but **should increasingly be developed into an organisational capability.**

This view was echoed by Pravir Ishvarlal, a Data Science and Analytics Consultant, who further commented that 'multiple programming languages (potentially) translate to misaligned communications'. He indicated that 'business does not realise, that by definition, developers are often introverts and it's really **important to have people on both sides (business and technical) to bridge this gap** in (a) thought process'.

The above insights recently flashed back when I was ploughing through a sample of about 70 interview notes and questionnaires of talent primarily in the data science, data analytics, cyber security and cloud/system engineering related fields.

From a capability-building perspective, the data indicated that skills in Python, SQL and Machine Learning are fairly well developed in the observed pool of talent. There is also **a high focus and personal development in AI, AWS and Cloud Formation, DevOps, Azure, Cloud Computing, Modelling, Big Data Analysis, Hadoop, Software Engineering, Spark,** and so forth. This is no surprise at all as we appreciate that the field of data science is the study of large quantities of data that reveal insights to assist organisations to make important decisions. Furthermore, we accept that there are also many paths to a career in data science which may involve many of the skills highlighted above.

More interestingly, the data further revealed what was not being sufficiently developed in parallel to the technical skills. **Skills such as problem solving, communication, research, interpersonal, leadership, coaching, design thinking and so forth are relatively under-developed.** These skills, amongst others, are equally important to enhance the curiosity about data and set the platform to deepen engagement and storytelling.

This gap in developing other business skills highlights the point that both Ronald and Pravir were making and unfortunately the lack of a balanced approach or development track between the technical and business skills, further widens the problem. Before we single out technical teams, in my professional experience, the reverse is also true, meaning if we were to repeat the same exercise and analysis for teams in business roles, we are likely to arrive at a similar result whereby not enough organisational capability is being developed to bridge the technical skills gap.

In a world where we are digitally transforming at lightning speeds, more effort and investment is required to close individual and organisational capabilities across business and technical teams in facilitating best results based on collaboration, common understanding of the problem, consistent programming language, innovation and performance.

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The other thought-provoking insight that management and leadership teams should be aware of, is what is most likely to drive talent in these scarce skill teams to perform at their optimal best or not. Some of the positive key drivers observed are:

- **The talent values organisations that continuously invest in the right tools and technology to remain competitive.** This in part recognises that technology does not stand still and learning new technologies and algorithms is important.
- **Organisations that promote a culture of innovation, experimentation and problem solving are most desirable.** By this, we mean active practice, encouragement or acceptance of discovering solutions to challenging problems.
- **Working with high performing and talented management and/or own teams to bring out the best in people where knowledge is openly shared, communication is clear and learning is continuous, is most attractive.** It is becoming clearer that these highly talented individuals leverage off each other's strengths and value how they are led. Their ability to meet internal or external client expectation is also a critical motivation factor.

On the other side of the spectrum, **feedback received from the talent pool indicates that they can quickly disengage** when some of these issues are not resolved:

- Poor leadership where micromanagement is prevalent, leaders are unapproachable and transparency is lacking, trust in making decisions is low and a general lack of understanding the project exists or there is a lack of appropriate subject matter knowledge.
- Underdeveloped ways of work whereby the lack of clear communication and engagement framework, lack of work processes or approaches and team collaboration, is poor.
- A consistent poor-performing team or unit that is not solution-orientated.

Ordinarily it is advisable that organisations put in place progressive and practical frameworks, systems or policies to strengthen the organisation. The call to action is heightened to a great extent when managing relatively scarce skills of highly talented individuals who also happen to be in high demand. It was further interesting to observe that remuneration, which is generally an important factor to consider, did not feature as a major issue. The average annual guaranteed salary in our observed data was US$ 47,000 and average work experience was 9,6 years. So it is safe to conclude that the talent is likely to appreciate other employee value proposition interventions beyond equitable pay and benefits.

Whilst the talent under review is technically wired in many respects, their development path needs to incorporate the so-called 'soft skills' programmes which is a dangerous misconception that these are soft skills.

To attract and retain some of the best talent in data science (frankly, other fields too) and to further develop new careers in the digital era, it is pivotal that organisations **hire correctly the first time**, continuously **invest in new technology** to gain competitive advantage even in talent terms, **develop mature leadership behaviours** and **build a fit-for-purpose culture**. The overall value proposition may require some thought and is not necessarily a one-size-fits-all.

For talent and leaders in the data science and related digital fields, **it's equally important for individuals to better understand themselves and also improve on their understanding of others** for enhanced personal mastery. It is not only technical prowess that matters, but a healthy balance is required to enable us to fit well into a team, understand the business and problem, create a common language and understand how to drive desired results. It may be **the difference between winning and losing; success and failure.**

Lastly, our data indicates that 90% of the observed talent is mobile and willing to consider international opportunities! Doing nothing as organisations is therefore not an option.

REFERENCES

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