

**ANL201**

**Data Visualisation for Business**

# **Tutor-Marked Assignment**

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1a) A mission statement of an organization is a short statement that shows the reason for the organization to exist. (Tan, 2021) Microsoft’s mission statement is empower every person and every organization on the planet to achieve more. This describes Microsoft’s mission to help maximize every person and business to reach their potential and do better in terms of technology. Technology enable opportunities to be made and Microsoft acts as an agent to help benefit the world in all aspects of human civilization from healthcare to education.

1b) A vision statement describes what a company desires to achieve in the long-run. It depicts a vision of what the company will look like in the future. (Corporate Finance Institute, 2021)

Based on the Shareholder’s Letter, there seems to be a vision that circulated around Microsoft that the company wishes to generate on opportunities and growth so that these may enabled positive changes both locally and globally.

In my own opinion, this vision seems to hover around the idea by the use of technology breakthroughs and progress. Microsoft had breakdown how technology enabled opportunities for everyone and in this essay it will cover in terms of infrastructure, data and Artificial Intelligence (AI) and a modern workplace.

Infrastructure

In terms of infrastructure, Microsoft is continually building the Azure platform to be the solution for cloud computing service to many firms and also to non-private entities like government boards. Almost 95% of Fortune 50 companies use Azure platform. Such infrastructure by Microsoft helps to build growth and opportunity and it will make it more convenient for their day-to-day workloads. Government entities usually require more stringent security protocols and Azure has helped to maintain the security and integrity of classified workloads.

Data and AI

For data and AI, Microsoft’s vision does not want only a few companies to touch on AI and make it exclusive. Microsoft’s vision is to make sure that every company has the resources to build one because with Azure Cognitive Services, developers can customize and suit it to solve companies’ problems in which AI can help to alleviate. Microsoft wants to make sure that opportunities and growth are both present and this can be in terms of training and deployment of machine learning models.

Modern Workplace

Lastly, when it comes to modern workplace, Microsoft’s vision is to enhance communication and collaboration so that it helps to drive productivity and business transformation. The use of Microsoft 365 enabled that this benefit goes parallel with its vision. Essentially, Windows 10 is the generator for modern workplace and it is active in more than 900 million users.

1c) Strategic themes are the main high-level business strategies which an organisation must excel in order to achieve its vision. It can be regarded as an organisation’s pillar of excellence when they apply it to every part of the organisation. (Tan, 2021)

For Microsoft’s case, its strategic themes are focus on trust, environmental and corporate social responsibility, culture and technology.

Trust

When it comes to trust, Microsoft would want a partnership with customers and partners based on trust. This is because customers and partners would want to be associated with a technology company in which they can trust and not compete soon after. Microsoft takes this matter seriously and this expanding opportunity comes at great responsibility. Microsoft makes sure that its company perform AI, cybersecurity and privacy very seriously.

Environmental and Corporate Social Responsibility

On environmental and corporate social responsibility, Microsoft aims to strengthen its strategic pillars by creating a sustainable future so that the continued benefits of technology will still be passed on for generations to come. Not only is Microsoft advocating to other companies to embark on technology to reduce carbon footprints, Microsoft is also making sure the company is doing their part. For instance, targeting about 70 percent of renewable energy in data centres and its data centres are the most sustainable in the world.

Culture

Another Microsoft’s strategic theme pillar is cultivating the right kind of culture in its workplace. The issue in question here is its employees who are talented and is one of the company’s biggest asset. By investing a lot on its employees, the company takes a huge pride in making sure the welfare of its people is taken care of. This is done in terms of industry-leading benefits for both monetary and non-monetary values and also creates a diversed environment by hiring people from minority groups and also improve gender equality in management roles.

Technology

Technology is definitely the backbone of Microsoft’s company and it is essential that Microsoft is continually progressing in the advancement of technology. Microsoft has multiple departments when it comes to technology and this is to ensure the quality and outreach to community is achieved. This may be in terms of data and AI or applications and infrastructure.

Hence, this is the gist of the Microsoft’s strategic themes which form the bigger picture of Microsoft business model and ultimately building of a balanced scorecard.

1d) The four stages of visualisation process relates to data collection and storage, data pre-processing, graphics engine, human visual and cognitive processing. In Diagram 1, it illustrates the steps of visualisation process.

**Diagram 1**

Data Collection and Storage

Data collection and storage refers to the collection and storage of data. (Tan, 2021). Microsoft has a lot of datacentres worldwide and in this datacentres although the processes are homogenous across all countries, they may experience difficulty in foreign countries with different corporate and privacy laws. This means the extraction of data in some countries may be difficult to acquire. At the same time, Microsoft Azure faces stiff competition from other companies like Amazon and Google and other open source offerings.

Data Pre-Processing

The next step of the visualisation process is data pre-processing. The pre-processing of data stage is to transform them into something that everyone can understand. (Tan, 2021) This stage usually focuses on normalisation and transformation of the raw data to make it simpler. Volume of data is increasing with 50 billion connected to a device and finding the right platform that can translate raw data into something meaningful is key. This may be in terms of the multiple languages from different countries to adopt in into Microsoft Power BI.

Graphics Engine

Graphics engine is about displaying the hardware and the graphic algorithms to produce data visualisation on screen. (Tan, 2021). In this case, it uses the Microsoft HoloLens as an example. It is costly for companies to use this equipment but these holograms can be used to blend it with reality and also simulate a virtual world. The challenge here is for companies to sync the appropriate hardware and software that is suitable and unique to each companies.

Human Visual and Cognitive Processing

Human visual and cognitive processing is human perceptual and cognitive systems that are involved in interpreting and visualising data. (Tan, 2021). After the first three steps are completed, the ability to process the information in my opinion is the most important step because the concept and motive of data visualisation will be pointless if there is no sound principle of interpretation to the data that you have. Microsoft does not want a few exclusive companies to embark on AI but wants every companies to use it. This is a challenge because a lot of hard work dedication needs to be put in in the initial stage in order for AI to take over the interpretation role so developers can embed AI features like the ability to see, hear, respond, translate seamless into other applications.

1e)

One point that I would like to add in is the financial report that was presented. Currently, the financial performance like revenue is separated into the type of products and this is beneficial and interesting for Microsoft to gauge the performance and the popularity of each product sold. For instance it is divided into Gaming, Search advertising, Enterprise Services, Devices and so on. It is interesting because with the revenues disclosed of each product, Microsoft is able to roughly deduce and put a monetary value of its performance. From then onwards, Microsoft can quickly deep dive in the event it is under-performing.

The financial account also shows the relative difference of the revenues earned by year so we are able to distinguish whether a particular product is performing better in sales with time or not performing better.

But this may paint an incomplete picture if we want to know the performance of each product in each region. The reason why it is incomplete because for example if a product is performing better we may generalize it as the entire region is making use of the product. But it may be the case that a huge portion of the revenue which is 90% of it comes from North America and Europe but only 10% comes from Asia Pacific region.

Hence, the financial statement may narrow the scope of its result to label how much of the sales of percentage is belonging to which region.

Another point that is interesting and worth mentioning is the savings plan that Microsoft has partake in ensuring a lot of resources is given to its employees. We all know Microsoft will invest in its employees and this is by recruiting skilled talents and have generous remuneration in place like industry-leading benefits. This system is interesting because not all employers would want to spend on more resources to invest in the welfare of the company. Not only does Microsoft has a savings plans for its employees, we can see in the Annual Report that employer benefits of Microsoft increased from $734 million to $877 million from fiscal year 2017 to 2019.

Although the benefits are generous this may hurt Microsoft profitability and expenses. The opportunity cost here is the benefit forgone maybe spending more in research and development of products or investing towards environmental causes that may benefit Microsoft productivity and sustainability in the long run.

# Works Cited

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