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ANL201   
Data visualisation for business

Tutor-Marked Assignment

1. A company’s mission statement presents why it exists, what its overall goal is, identifying the goal of its operations: what kind of product or service it provides, its primary customers or market, and its geographical region of operations. Microsoft’s corporate mission specifies that the existence of the business is aims to empower everyone to achieve more using technology. The empowerment is achieved through the use of technology created by Microsoft i.e. its products and services. The business targeted market is every individual and corporations of every size on the planet.
2. Based on Microsoft mission statement, I think its vision is based on the following perspectives which are interconnected:

Customer: How should Microsoft appear to its customer?

Microsoft wants to be seen as the trusted partner in helping each individual and corporations in this planet to achieve full potential or even breakthrough in their respective technology area. In order to achieve its desire, first and foremost Microsoft recognized the importance of being a trusted party, as they believe without trust, they are unable to have deep relationship with its stakeholders and make progress.

Learning & Growth: How could Microsoft continue to improve and create value?

Microsoft employees plays a vital role in this in building a trusted and deep relationship with the stakeholders. Microsoft see their strength lies in the hand of having talented people.

Internal Business Processes: What business processes must Microsoft must excel at?

As they work towards this desire, they are building its capabilities through investment in emerging technology trends and continuous advancing its leading product and services through research and development. Microsoft has several engineering groups such Cloud and AI, Experience and Devices, Gaming to develop most of their products and services. This allows them to maintain competitive advantages from product differentiation.

1. Microsoft’s strategic theme focus on building its technologies capabilities in new areas like AI, cloud, gaming while maintain its dominance in enterprise IT. Many of its investments, acquisition, internal research and develop is focusing on cloud and AI. It also continue its effort to improve customer experience and all aspect of its internal operations. The strategic theme are:

Reinvent productivity and business processes

This segments refers to Microsoft’s software product and services like Office 365, Skype, LinkedIn, Windows 10 and Microsoft Dynamic. Microsoft continue to innovate and advance in this area of software product and services with the motivation to meet the needs, habit and expectations of their customers.

Build the intelligent cloud and intelligent edge platform

This segments refers to cloud platform Azure, the Visual Studio developer platform, and Windows Server, a version of Microsoft’s proprietary operating system optimized for running in the cloud. Microsoft is working towards becoming the partner of choice for customers in this area of digital transformation. It has been actively expanding its AI and cloud-related technologies through acquisitions as well as investments in infrastructure to support the services.

Create more personal computing

This segment refers to product like Xbox and Microsoft surface, Microsoft is committed to expanding into gaming industry focusing on gaming experience from the way game is created and distributed to how they are played and viewed.

1. The four stages of the data visualization process

* Data Collection and Storage

Microsoft has wide spread of products and services consume by customers across worldwide, there are huge quantity of data available thus make it extremely difficult to gain a “big picture”. Microsoft needs to takes into consideration, what data to be collected, how the data and data visualization are interpreted as well as storage of data the data source.

* Data Pre-processing

Data collected by Microsoft then goes transformation into something one can understand, before passing the data to graphic engine for data visualization process. Most common data pre-processing problem are missing data, data inconsistency, wrong data type etc. Therefore, it takes up a lot time to transform the data into format useful for analyzing.

* Graphics Engine

This is the display hardware and the graphics algorithms to produce Data Visualisation on screen. With huge dataset, Microsoft faces challenges maintaining the right scale of graphic engine so that the display hardware would not become inefficient affecting the interactive rate of the data visualization.

* Human Visual and Cognitive Processing

This is the human perceptual and cognitive systems that are involved in interpreting the visualised data. Different people have different ways of seeing things, Microsoft businesses are across worldwide, and the challenge is then how to create visualized data cater for different group of people across the world people while not losing the essence of the data.

1. Here are some interesting point from the data in Microsoft’s 2019 Annual Report:

* Loss making phone business

While Microsoft is expanding its business footprint through investment and acquisition, not all acquired business prosperous and phone business is one good example. Its phone business has been loss making, falling operating income while incurring integration and restructuring expenses. The phone business prospect hasn’t been promising for Microsoft, if it does not consider divestment to cut further losses, as it will be pulling down the overall organization performances.

* Microsoft stock grow

Microsoft stock grow with its expansion into promising business areas like clould, AI and gaming, however it also facing stiff competition in these business areas from big player like Amazon and Google. Microsoft is actively acquiring companies to match its competitors e.g. the acquisition of GitHub in October 2018 and investment in datacenters. Growing of stock value has certainly show the investors’ confidence in those investment and acquisition made by Microsoft.

* Intelligent Cloud segment overtaking Productivity and Business Process

Comparing fiscal year 2019 with fiscal year 2018, both total revenue and revenue growth for Intelligent Cloud and Personal Computing segments has over-taken Productivity and Business Process segment which includes products and services like Office 365, Dynamic 354, Skype and Linkedln. Cloud related technology and AI has become major priority for Microsoft as indicated by the revenue growth. The heavy investments in these technology field is certainly paying off. Given that this industry is dynamic and highly competitive, Microsoft continues facing challenges to remain on top among its competitor.

* Increase in expenditure in Research and Development

Microsoft is increasing its expenditure in Research and Development year on year from fiscal year 2017 to 2019. Its expenditure increased $2.2 billion or 15% comparing fiscal year 2019 with fiscal year 2018, mainly in area of cloud and AI engineering, Gaming, LinkedIn and Github. This allows them to innovate with new software products and services and therefore maintain its competitive advantages.