**ANL201**

**Data Visualisation for Business**

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**Question 1**

**Part a**

Microsoft’s Mission statement is to **empower every person and every organization on the planet to achieve more.** This mission forms the company's foundation to work on the chance and power to guarantee that the technology created will always be profitable to each individual on the planet and the planet itself.

**Part b**

In my opinion, Microsoft’s vision for 2020 was to integrate Artificial Intelligence (AI) in dealing with the increasing volumes of data in the markets. The company's emphasis was empowering its customers and contributing to the increasing markets by transforming digital platforms. The company created Azure, a computer that solves the clients’ physical world regulatory requirements. The company also introduced hyper-scale abilities to its relational database offering extensive cloud analytics. According to research, the fate of applications will be AI. Therefore, the company democratized the AI tools and integrated them with Azure Cognitive Services to ensure that each developer can use services such as see, translate, hear, and respond in their applications. The company has also inaugurated the new HoloLens 2, which improves the field of view and relief; this suggests that Microsoft aims at improving the versions and further integrates them with Dynamics 365 and Azure mixed reality services (Microsoft 2020 Annual Report, n.d.).

**Part c**

A strategic theme is a sector in which an organization specializes to ensure that the company attains its vision. Microsoft’s strategic themes in 2020 are; responsible Artificial Intelligence (AI), Cybersecurity, and Privacy.

Responsible Artificial Intelligence

Responsible AI refers to a system that joins critical practices together. It also emphasizes the good use, transparent and accountable utilization of all AI technologies in a way that is accordant to the user's expectations and organizational values, and public laws and standards. (Clarke, 2019). Through AI, Microsoft Corporation has dealt with some issues, such as emphasizing computers' work. Microsoft has also laid down some initiatives in AI, such as cultural heritage. The company has also played a vital role in eliminating the challenges associated with the use of AI.

Privacy

Recently, the government and large companies have been accessing the personal data of people. This protection is a vital requirement, and therefore the data must be safely protected. As a result, Microsoft values its customers' privacy. The development of its products and policies is based on the fact each customer has their data that has to be rightly protected. (Microsoft 2019 Annual Report, n.d.).

Cybersecurity

Cybersecurity refers to the act of protecting systems and programs against cyber or malicious attacks. Cyber-attacks cause software and hardware damage as well as the loss of data in an organization. From the shareholder letter, it is evident that cybersecurity is a key issue to all customers, and therefore the company has invested in improving its cybersecurity. As a result, the company processes 6.5trillion signals and verifies billions of emails daily to curb malware spread. The company has also teamed up with other cybersecurity companies and public sectors to help deal with daily threats. (Microsoft 2019 Annual Report, n.d.).

**Part d**

The four stages of the data visualization process include;

Step 1: Exploration

Exploration is the first stage in the visualization process, and the company is tasked with searching for a data set in no particular order. In Microsoft's case, virtual reality is the main challenge at this stage. For example, Microsoft employees interact with data from business in the third dimension, and they may compare different data patterns without any idea, thus causing errors.

Step 2: Examination

Examining the data in the visualization process is done through structured methods that identify categories, trends, and other links between the data sets. However, the main challenge at Microsoft remains to be the shortage of technical skills. The challenge remains despite the series of innovations in data analysis at the company. There are inadequate data scientists to work on peoples’ data accurately before the combination of visuals.

Step 3: Combining

At this step, the data collected is combined to form conclusive evidence. Since a conclusion is vital, summarization of the main points is not recommended. Combining is vital because the main points from the analysis need to be drawn. Due to the large volumes of data obtained daily, not all data is interpreted because many individuals do not keep up with technological advancements.

Step 4: Demonstration

At this stage, the examined data is presented in graphs, charts, and any other visual methods that suit the data collected. As the volume of data increases, so does the number of visualizations required. Microsoft graphs have been introduced and linked with Microsoft 365 and Dynamics 365. From the Microsoft shareholder letter, data presentation requires adequate knowledge of the presentation methods, challenging when trying to provide different market solutions.

**Part e**

Two interesting points from the data in Microsoft’s 2019 Annual Report are;

Microsoft Game Stack

The company is continuously working on how to improve its gaming features with an aim of changing how the games are distributed, viewed or played. The latest developments in the gaming platform are Project xCloud (Microsoft 2019 Annual Report, n.d.). The program will improve the gamers’ experience of games and allow gamers to enjoy their games on any device and at any location. The Microsoft Game Stack will bring more options to game developers to improve gaming experience. The games developed should be compatible with mobile phones, PC or console. The company has increased its gaming studios to 15 which allow alternative games such as Xbox Game Pass that has been made accessible in both PC and console. This will be an important sector for Microsoft Corporation because most youths and children enjoy playing games. Therefore, improving on the Game Stack will attract more customers to purchase the Microsoft Gaming products and thus, increase revenue to the company. (Microsoft 2019 Annual Report, n.d.).

Modern Workplace

The company came up with Microsoft 365 that enhances user experience to more than one device. The product can be used in both large and small enterprises. Microsoft is empowering businesses to manage effective communication and collaboration to boost transformation and productivity of the company. The Microsoft Teams had 13million active users daily and Windows 10 is used by over 900million devices. Office 365 has over 180million users. Microsoft has also integrated AI into its Microsoft 365 to enable automation, interpretation and insight abilities. (Microsoft 2019 Annual Report, n.d.). Microsoft 365 also boosts presentations by making it easy to create PowerPoint presentations, videos and emails. In most cases, financial statements have to be well presented to investors so that they can invest in a company. This is an important point for the company since it will be able to attract new markets from both small and large enterprises. Since effective communication is a key requirement for a business to be successful, improving on the mediums of communication has resulted to Microsoft products being preferred by most businesses. Attracting new markets will increase revenue for the company, and therefore the company will have an operating capital to finance its other projects. (Microsoft 2019 Annual Report, n.d.).

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