A picture containing food, plate

Description automatically generated

## ANL201

|  |  |
| --- | --- |
| **STUDENT NAME:** | **HOONG JIA LIN (J1981311)** |
| **TITLE:** | **TMA** |
| **COURSE CODE:** | **ANL201** |
| **T:** | **02** |
| **SUBMISSION DATE:** | **17/2/2021** |
|  | |

**Plagiarism and Collusion**

**Plagiarism** is the act of using or passing as one’s own, the ideas or writings of another without acknowledging or crediting the source from which the ideas are taken from.

**Collusion** is the act of submitting any academic work (including assignment, project or report) that was completed by another person and pass these work off as one’s own.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | | | | |
| **Declaration** | | | | |
|  | | | | |
| I declare that this assignment is my own work, unless otherwise acknowledge or credited by appropriate referencing. I have read and abide by the SUSS Honour Code and I am aware of the penalties associated with plagiarism and collusion listed in the Student Handbook. | | | | |
|  | | | | |
| Initial: |  |  | Date: | 17/02/2021 |
|  | | | | |

(a)

Microsoft’s mission statement is: “to empower every person and every organization on the planet to achieve more.” The mission statement can be broken down into 2 main components, with the first being a focus on empowerment. Use of the term empowerment shows Microsoft’s dedication to creating advantages and benefits for customers through Microsoft’s products (Dynamics 365, LinkedIn, Microsoft 365 are some of the products which are essentially platforms for organizations to utilize in their growth and operations.)

The second focus would be that on empowering every person and every organization. This component of the mission statement reflects Microsoft’s target segment, which is every individual and organization worldwide. In essence, Microsoft intends to be inclusive, creating products that are accessible even to the minority or under-privileged. This is reflected in their 2019 shareholder’s letter under “Environmental and corporate social responsibility”, where the CEO explicitly said that Microsoft is working with organizations around the globe to enhance the digital skills of youths, “especially those who identify as female and under-represented minorities” (Nadella, 2019).

(b) Microsoft did not explicitly state their Vision statement. Based on the Shareholder Letter, discuss what Microsoft’s vision was for 2020 in your opinion. (12 marks)

Based on the shareholder letter, it appears that Microsoft’s vision statement for 2020 was to further consolidate its position as a global facilitator of success via technology, while building strong trust with customers.

Even in the introduction, there is an inherent emphasis on how Microsoft has helped “organizations of every size in every industry” thrive and innovate using Microsoft’s platforms and tools. There was a huge emphasis on how Microsoft added checks and balances to their own production, ensuring that the technology they create “always benefits everyone on the planet”. The CEO further supported the company’s focus on being a facilitator when he conceded that technological breakthroughs in the future will also come from firms working in partnership with Microsoft, and that Microsoft intends to help them achieve such a reality, hence earning their trust. It was quite aptly put in the concluding sentence of a paragraph: “We want them to become independent with us, not dependent on us”. All of these are evidence of how Microsoft intends to earn trust and facilitate success.

One of the main topics raised in the shareholder letter was that of trust. The CEO then goes on to emphasize on how highly Microsoft holds the trust bestowed by their partners. This supports the aforementioned vision statement. In the first half of the paragraph on environmental and corporate social responsibility (CSR), the CEO elaborates on how Microsoft plans to operate with sustainability in mind, as well as assist other industries/companies in transitioning into more environmentally responsible businesses. The second half of the paragraph features an elaboration of how Microsoft intends to help empower less-privileged individuals with the skills they need to thrive in the tech economy. These two themes also support the predicted vision statement of trust and the facilitation of success.

(C)

Based on the shareholder letter, four strategic themes can be deduced. The first theme would be that of technological innovation and expansion. In the paragraph of “technological breakthroughs and progress”, it can be seen that Microsoft intends to not only innovate by themselves, but also assist partners in doing so. This is evident in how the CEO briefly described Microsoft’s focus on building and further developing their cloud platform, Azure. Using said cloud platform, Microsoft also intends to integrate AI infrastructure into the platform, giving developers the tools needed to augment their applications. This is evidence of both innovation on Microsoft’s part and giving partners the tools to innovate. The CEO also mentioned that Microsoft’s acquisition of GitHub accelerated its growth, making it the home of many digital companies. Investments into different tools such as Visual Studio, TypeScript and HoloLens 2 were also mentioned, further supporting the strategic theme of expansion.

The second theme would be building trust. In the aptly titled “trust” section of the letter, the CEO clarified how Microsoft intends to build the trust bestowed on them by their partners. Microsoft intends to improve the transparency of the handling of customers data, hence giving customers their “fundamental human right” of privacy. The CEO also mentions that Microsoft would remain as one of the leading advocates for new privacy laws, ensuring that customers “enjoy the transparency and control they rightfully deserve”. Microsoft also intends to further strengthen the security of their products, investing into security measures like authentications and scanning for malware. The CEO also makes mention of the different security programs introduced in 2019, such as Microsoft Threat Protection and Azure Sentinel. This indicates Microsoft's intention to either build on or maintain the trust between them and their customers.

The third theme would be that of sustainability and CSR. In the portion of the letter titled “Environmental and Corporate Social Responsibility”, the CEO went on to list the different measures taken by Microsoft to ensure a sustainable business operation. Measures include operating at carbon neutral levels across the world with an internal carbon tax, powering data centers with renewable energy and working with customers to utilize technology to reduce their environmental footprints. In the second part, the CEO listed ways in which Microsoft provided digital literacy programs for the under-privileged. It was also mentioned that Microsoft intends to make technology and housing accessible to rural communities. Lastly, the CEO mentioned that Microsoft expanded their support for non-profit organizations by accelerating their digital transformation, while donating and providing software and services.

The fourth and final theme is that of employee well-being. In this section, it is mentioned that Microsoft has long recognized the importance of ensuring employee welfare. The CEO also mentioned that Microsoft is working towards a more inclusive and diverse workforce, increasing employment of different races as well as ensuring equality for all genders.

It is apparent that Microsoft intends to advance its position as a global leader in the tech sector using the above strategies. Technological innovation and expansion serve to grow Microsoft’s influence, while building trust further solidifies Microsoft’s relationships with customers. This in turn would attract other customers to building a similar relationship with Microsoft. Sustainability and CSR not only contributes to environmental preservation, but also assures potential customers of Microsoft’s intention to operate and expand responsibly. Lastly, employee welfare serves to motivate the workforce, hence fueling Microsoft’s relentless march towards its goals.

(d)

In the Data collection and Storage stage, there may be issues regarding the storage capacity and accurate data collection. As mentioned in the shareholder’s letter, Microsoft intends to build Azure as the world’s computer. This means that Microsoft intends for most, if not all of their customers to use this product as their go-to data analysis program. One possible issue lies therein the sheer amount of storage Microsoft’s servers would need to provide should all their customers adopt the product. A study estimated that 7.5 septillion of data is generated each day (Priceonomics, 2019). This in itself shows the sheer amount of storage and computing required to collect said data.

In the Data Pre-processing stage, there may be issues of missing data. MCAR, or missing completely at random, is an issue whereby data that is missing has no relation with any values in a data set (Vallantin, 2020). This means that it is completely random, whereby an employee may have forgotten to key in certain data or information just being lost. This would affect the accuracy and reliability of data pre-processing. With Microsoft being a global brand and having customers from all around the globe, coupled with its own emphasis on sovereignty, it would be almost impossible for Microsoft to ensure proper data input techniques across the board. Another issue is that of regional formats. With customers all over the world, there are bound to be differences in the formatting of certain data, making it difficult for a program to blanket process all data collected.

In the Graphics Engine stage, there may be issues with the processing power of the engine. As mentioned previously, an enormous amount of data is generated daily. This would obviously translate to a similarly gargantuan amount of data to be processed for visualization, even after the preprocessing stage. This would mean that the graphics engine used to process said data has to be extremely powerful as well in order to generate the visualization on screen. This would ultimately translate to greater cost, cost that customers may be unwilling to bear in order to obtain said visualization.

Lastly, in the Human Visual and Cognitive processing stage, there may be issues with the interpretation of data. Some employees may lack the skills required for accurate interpretation. Also, there may be issues with the perception of data, in that there is bias. Being rational human beings, tend to act on their own interests, hence resulting in bias. Despite data being raw and neutral, said bias is bound to present as a problem when individuals perceive the data. When the interpreted data is framed with a bias, the individuals having the data presented to them would adopt that inherent bias as well.

(e)

In the stock performance graph, it can be seen that the value of Microsoft’s stock outperformed the stocks of S&P 500 and NASDAQ. This performance measure is based on a 100USD investment into all 3 stocks on 30/6/14. In 2015, NASDAQ outperformed both S&P 500 and Microsoft, albeit by a slim margin. Beyond 2015, Microsoft started outperforming both NASDAQ and S&P 500. The key trend is that Microsoft started consistently outperforming both indexes, by a considerable margin as well. A consistent rise in stock valuation usually reflects investor interest in the company. This is interesting due to the sheer amount of growth in valuation that Microsoft experienced over a period of just 4 years. It shows that Microsoft’s strategic themes were not just working out but allowing them to excel. It also reflects the relevance of both Microsoft’s mission and vision statements, with which the company has built its success on and intends to continue doing so. Having rapidly growing stock values is extremely beneficial to Microsoft. With both company and stock price performing well, Microsoft is bound to receive a favorable reputation from both analysts and the media. This in turn would be attractive to other potential investors as well as customers, hence contributing to Microsoft’s financial growth. It is highly recommended for Microsoft to try to leverage on investor capital and accelerate growth, as in doing so would result in the same chain reaction mentioned above, leading to an even stronger financial standing.

Based on the balance sheet, several ratios can be calculated. One of the ratios is that of the Return on Equity ratio, which represents the ability of the firm to utilize its equity funding to generate income. This ratio is particularly important as it provides insight for investors as to whether it would be profitable for them to invest into Microsoft. It is found that the ratio for 2019 is 38%, which is more than satisfactory for investors (Elhossary, 2020). The return on total assets ratio can also be calculated. This ratio is representative of the efficiency in which Microsoft uses its assets to increase earnings, the higher the rate, the greater the efficiency. This is also another ratio which provides insight as to the profitability of Microsoft. Microsoft was found to have a return on total assets of 14%, which shows efficiency in utilizing assets for revenue generation (Elhossary, 2020). Having relatively good profitability ratios is extremely beneficial to the company. Once again, it serves to attract even more investments, giving Microsoft the means it needs to continue its expansion and innovation strategy. It is highly recommended for Microsoft to maintain these ratios, in doing so would strengthen investor confidence, giving Microsoft both the investments and trust, it needs to pursue its goals.

**References**

Nadella, S. (2019). Microsoft annual Report 2019. Retrieved February 15, 2021, from [https://www.microsoft.com/investor/reports/ar19/index.html#](https://www.microsoft.com/investor/reports/ar19/index.html)

Priceonomics. (2019). Companies collect a lot of data, but how much do they actually use? Retrieved February 17, 2021, from <https://priceonomics.com/companies-collect-a-lot-of-data-but-how-much-do/>

Vallantin, L. (2020, June 15). Dealing with data preprocessing problems. Retrieved February 17, 2021, from <https://medium.com/@limavallantin/dealing-with-data-preprocessing-problems-b9c971b6fb40#:~:text=Data%20preprocessing%20problems%20can%20come,Manual%20input&text=Wrong%20data%20types>

Elhossary, R. (2020, July). *Financial statement analysis of Microsoft* (Rep.). Retrieved February 17, 2021, from <https://www.researchgate.net/publication/342703037_Financial_Statement_Analysis_of_Microsoft>