

[BX2016:Data Analytics and Business Modelling]

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| Assessment Task | 2 |
| College | College of Business, Law and Governance |

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| Assessment Title | Simulation Activity (Modelling Project) | | | | | | | | |
| Due Date | 23/1/2022 | | | | | | | | |
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1. Introduction

This report aims to analyse the financial and product profitability of Omega Pty Ltd from 2019 to 2021. Moreover, this will give some analysis and recommendation for establishing new store in Maroochydore.

2. Financial profitability analysis by location and by year

In 2019, the net profit before tax of Omega Pty Ltd (Omega) was \$1,059,753 in total. The Brisbane store had contributed over a third of profit which is the highest percentage among four stores. The contribution of the Cairns store compared to the total profit was the second highest at 26.2%, much higher than Gold Coast store contribution at 19.8%. The lowest contribution is Townsville which is 15.5%.

After one year, the net profit slightly decreases to \$1,043,570. The Brisbane store contribution increased 1.6% that continued to be the largest profitability. The second place still belongs to the Cairns store. Its net profit account for 29.8% in 2020 which marginally increases compared to last year. For the profit of Townville store, there was significantly increase that leaded to the higher contribution to the total profit at 24,8% and hold the third place among four stores. Just 5.4% profit was contributed by the Gold Cost store. There was a significant plummet in the profit.

The net profit went up significantly to \$1,355,298 in 2021. The Cairns store net profit rapidly increased and contributed over half of Omega's profitability which was the largest proportion in 2021. Over two-fifths of profit are contributed by the profit from Brisbane store which is a stable contribution compared to previous year. Same as Brisbane store, Townville store contribution is steady which just slightly declined 0.9%. However, the Gold Cost store brought lost profit in this year which was -15,8%.

Over three years, there was a negligibly increase in the net profit. The total revenue, cost of good sales, and operating cost increase with steady ratio; therefore, the gross and net profit

margin was not so much fluctuated. The Brisbane store have a good development over time and have the highest proportion of contribution to profitability. However, the Cairns store is accelerating in recent years and have the potential to bring the bigger profit in future. There was a plummet in the profit of Gold Cost store which was the worst financial performance.

3. Product profitability analysis by location and by year

In 2019, mobile phones brought the highest profitability for Omega which was \$1,565,980 in total; moreover, mobile phone also had a best performance in each store. Besides, computers and tablets were just \$490,580 which is the worst performance. The profitability performance of computers and tablets in Townville, Brisbane, Gold Cost also was the worst in each store with \$98,040, \$167,960, \$102,980 respectively. However, washing machine had a lowest performance in Cairns store which was \$78,545.

In 2020, the profitability of mobile phone slightly increased to \$1,592,000 and still remain as the best profitability not only in total but also in each store. Same as year before, the computers and tablets brought the lowest profit in all stores except Cairns store. In this year, fridge became the worst performance in Cairns which was just \$5,250.

For one year later, mobile phones continued increasing to \$1,944,280 and had the best performance in profitability for Omega. In this year, four stores which are in Brisbane, Cairns, Gold Coast, Townville have computers and tablets which is the worst profitability at \$166,820, \$126,350, \$80,560, \$88,730, respectively.

From 2019 to 2021, almost all profitability of products were increasing and had sales volume over the target sales. Only the profitability of computers and tablets declined from \$490,580 to \$462,460. Moreover, its sale actual which was 2434 units did not reach the prediction which was 2456 units.

4. Sensitivity Analysis (what-if-analysis)

After 3 years, the total revenue of Omega is \$79,766,310 and the total cost is \$76,307,690. As a result, they gain \$3,458,621 for the profit before tax. On the one hand, assuming the total cost will remain, and total revenue will slightly increase by 2% in the next 3-year period. That change will make the net profit significantly increase by 46.13% compared to the current net profit. On the other hand, if the total revenue decrease by 5%, it creates the loss in net profit at -\$529,695. In the other scenario, the total revenue will be unchanged, and the total cost will decrease 2%. The net profit will increase by 44.13%. However, when the total cost declines by 5%, the net profit will considerably go down to -\$356,764. Overall, the change in revenue is more sensitive to the net profit of Omega than the change in cost.

5. Feasibility of Maroochyore store

To evaluate the feasibility of Maroochyore store, the Omega need to have different scenario about revenue and cost to get a better idea.

In scenario 1, the Maroochyore store has 12 staff. The net profit of the store will be -\$651,758 if the income statement is the same as the forecast of Gold Coast store in 2022. The net profit will slightly improve to -\$458,841 if revenue of Maroochyore store in 2022 similar to the revenue of Gold Coast in 2021. In bad situation, the revenue just equal to 90% of the Gold Coast's revenue in 2021. It can make a big loss for the Maroochyore store at -\$1,027,711. However, if the revenue of Maroochyore increase by 10% or 20%, the profit will be \$110,029 or \$678,899 respectively. When the number of staff reduce to 6 staff, the profit is better in all situations. When the revenue does not increase compared to Gold Coast's revenue in 2021, the net profit will be at -\$101,841 which mean the Maroochyore reduce the loss compared to scenario 1. Moreover, when the revenue slightly increases 5% or 10%, the Omega will get the profit at \$182,594 or \$467,029 respectively.

Based on the assumption, the revenue of Maroochydore will be same with the Gold Coast forecast in 2022, so the potential Maroochydore will be lost the profit is extremely high. Therefore, to minimize the loss, the Omega should start with six staffs for this store.

6. Conclusion

In conclusion, the net profit of Omega is upward trending. Among their products, the mobile phone category has the best performance and the computer and tablet category has the worst performance. To open a store in Maroochydore, Omega should start with six staff to reduce the risk of loss during operation.