You are required to complete the following questions and submit them via Turnitin. Please provide your working and explain any assumptions you make when discussing calculation questions.

## Question 1 (2 marks)

The expenses listed in the budget are listed below. Classify each expense as either a Variable, Mixed or Fixed cost. Include a very brief description of how you classified each cost.

**Hint:** You can look at the formula in the budget spreadsheet for further help.
**Note:** Wages are being treated as a fixed cost to simplify the analysis.

| Expense | Cost behaviour |
|---|---|
| Food Supplies | Variable |
| Beverage Supplies | Variable |
| Rent | Fixed |
| Wages* | Fixed |
| Utilities | Mixed |
| Maintenance | Fixed |
| Marketing | Fixed |
| Other Operating | Fixed |
| Loan repayments | Fixed |

## Question 2 (3 marks)

Run a regression on the restaurant's forecast utility expense to gain further insight into the cost behaviour of the utilities expense. (Hint: Use the monthly total utilities cost as the dependent (y) variable, and the number of monthly customers as the independent (x) variable.

- **Calculations done in Excel Sheet.**

   a) What is the monthly fixed cost component of the utilities expense?
      - The Monthly fixed cost will come from the intercept of the regression as the intercept is the value that explains the Monthly total Utilities when no monthly customers have visited the restaurant which is **$874.802 per month**.
   b) What is the variable cost component of the utilities expense per customer?
      - **$0.207 per customer**
   c) How accurate do you think the output of the regression is?
      - This model accurately explains **78.241%** of the variation in the data.

## Question 3 (5 marks)

Assume the average customer spends $30 on food, and $15 on beverages. How many customers per year do you need to break-even?

(Note: For this analysis only, you may assume all costs except food supplies and beverage supplies are fixed.)

- First to find this we need to calculate Contribution Margin:

CM = Price – VC

CM = ($30+$15) – (30%*($30)) + 35%*($15))

CM = $30.75

Break Even Analysis = Fixed Costs/Contribution Margin

BEA = $ $1,198,021.87/$30.75

BEA = 38960.06

BEA ~ **38,961 customers per year**

The restaurant would need **38,961 customers per year** to break even.

## Question 4 (10 marks)

The owner of the restaurant has a target of making a 150,000 per year profit (ignore tax).
  a) How many customers would they need to service to reach this target?

- Profit = Price*Quantity – VC * Quantity – Fixed Costs
  Profit = (Price-VC)*Quantity – Fixed Costs
  Profit = CM*Quantity – Fixed Costs
  Quantity = (Profit + Fixed Costs)/CM
  Quantity = ($150,000.00+ $1,198,021.87)/ $30.75
  Quantity = 43838.11
  Quantity ~ **43,839 Customers per year**

The restaurant would need to serve **43,839 customers per year** to make a profit of $150,000.

  b) What % of seating capacity would the restaurant need to operate at to reach this target?

- Total Seating capacity per day = Seats * sittings per day
  Total Seating capacity per day = 50*3 = 150 sittings per day

  Total Seating Capacity per year = sitting capacity per day * number of trading days
  Total Seating Capacity per year = 150 * 366 = 54,900

  Percentage of capacity required to meet the target = (Target Seatings per year / Seating Capacity per year)*100
  Percentage of capacity required to meet the target = (43839.00/ 54900)*100
  Percentage of capacity required to meet the target = **79.85%**

  The restaurant would need to operate at approximately **79.85% of its seating capacity** to

reach the target of serving 43,839 customers per year and achieve a profit of $150,000.

## Question 5 (5 marks)

Update the budget for the months April, May and June to reflect the new social distancing regulations. Please provide a screenshot of your updated budget in this document.

The following assumptions will help:
   a) You expect the capacity of the restaurant will be reduced by half. This will reduce the number of customers and therefore reduce the variable expenses.
   b) You will reduce your wait staff to only employ 2 casual wait staff and 1 part-time wait staff member.
   c) You expect the interest rate to drop to 3% p.a.
   d) The other forecast assumptions can be maintained.

**Restaurant Monthly Cash Budget**

| | Month | July | August | September | October | November | December | January | February | March | April | May | June | Year |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Period start date | 01-07-19 | 01-08-19 | 01-09-19 | 01-10-19 | 01-11-19 | 01-12-19 | 01-01-20 | 01-02-20 | 01-03-20 | 01-04-20 | 01-05-20 | 01-06-20 | 01-07-19 |
| | Period end date | 31-07-19 | 31-08-19 | 30-09-19 | 31-10-19 | 30-11-19 | 31-12-19 | 31-01-20 | 29-02-20 | 31-03-20 | 30-04-20 | 31-05-20 | 30-06-20 | 30-06-20 |
| | Days in month | 31.00 | 31.00 | 30.00 | 31.00 | 30.00 | 31.00 | 31.00 | 29.00 | 31.00 | 30.00 | 31.00 | 30.00 | 366.00 |
| **Revenue** | | | | | | | | | | | | | | |
| Forecast restaurant capacity utilization | | 60% | 75% | 77% | 80% | 85% | 65% | 80% | 90% | 87% | 83% | 82% | 78% | 78.5% |
| Customers | | 2790 | 3487.5 | 3465 | 3720 | 3825 | 3022.5 | 3720 | 3915 | 4045.5 | 1867.5 | 1906.5 | 1755 | 37,520 |
| Food | | 83,700 | 104,625 | 103,950 | 111,600 | 114,750 | 90,675 | 111,600 | 117,450 | 121,365 | 56,025 | 57,195 | 52,650 | 1,125,585 |
| Beverages | | 41,850 | 52,313 | 51,975 | 55,800 | 57,375 | 45,338 | 55,800 | 58,725 | 60,683 | 28,013 | 28,598 | 26,325 | 562,793 |
| Total Revenue | | 125,550 | 156,938 | 155,925 | 167,400 | 172,125 | 136,013 | 167,400 | 176,175 | 182,048 | 84,038 | 85,793 | 78,975 | 1,688,378 |
| **Expenses** | | | | | | | | | | | | | | |
| Food Supplies | | 25,110 | 31,388 | 31,185 | 33,480 | 34,425 | 27,203 | 33,480 | 35,235 | 36,410 | 16,808 | 17,159 | 15,795 | 337,676 |
| Beverage Supplies | | 14,648 | 18,309 | 18,191 | 19,530 | 20,081 | 15,868 | 19,530 | 20,554 | 21,239 | 9,804 | 10,009 | 9,214 | 196,977 |
| Rent | | 16,667 | 16,667 | 16,667 | 16,667 | 16,667 | 16,667 | 16,667 | 16,667 | 16,667 | 16,667 | 16,667 | 16,667 | 200,000 |
| Wages* | | 74,900 | 74,900 | 74,900 | 74,900 | 74,900 | 74,900 | 74,900 | 74,900 | 74,900 | 41,710 | 41,710 | 41,710 | 799,230 |
| Utilities | | 1,517 | 1,642 | 1,569 | 1,605 | 1,666 | 1,419 | 1,615 | 1,692 | 1,730 | 1,262 | 1,270 | 1,238 | 18,225 |
| Maintenance | | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 3,000 |
| Marketing | | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 12,000 |
| Other Operating | | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 3,000 |
| Loan repayments | | 5,151 | 5,151 | 5,151 | 5,151 | 5,151 | 5,151 | 5,151 | 5,151 | 5,151 | 4,714 | 4,714 | 4,714 | 60,500 |
| Total Expenses | | 139,492 | 149,556 | 149,162 | 152,833 | 154,390 | 142,707 | 152,842 | 155,698 | 157,596 | 92,464 | 93,028 | 90,838 | 1,630,607 |
| Net Income | | -13,942 | 7,381 | 6,763 | 14,567 | 17,735 | -6,695 | 14,558 | 20,477 | 24,451 | -8,427 | -7,235 | -11,863 | 57,770 |

## Question 6 (10 marks)

Given the information contained in the updated budget, what do you estimate the restaurant's net profit and profit margin for the entire year will be?

- The estimated net profit for the year **$57,770**.

Total Revenue = $1,688,378

Profit Margin = (Net Profit/ Total Revenue) * 100

Profit Margin = ($57,770/ $1,688,378) * 100

Profit Margin = **3.42%**

This means that after accounting for all the expenses and reduced capacity due to social distancing, the restaurant is expected to achieve a net profit of **$57,770** and profit margin of approximately **3.42%** for the year.

## Question 7 (10 marks)

Calculate the quarterly net profit and profit margin for Q4 (April – June) and compare it to the Q3 (Jan – March) figures. Provide a brief discussion regarding the change in financial performance.

- The Restaurant experienced significant downturn in financial performance in Q4 compared to Q3. The net income in Q3 was positive reaching $59,486 with a profit margin of 11.32%. However by Q4 net income became negative at -$27,525 and the profit margin dropped to -11.063%.

  This negative shift can be attributed to the impact of social distancing regulations, which reduced seating capacity by 50%, significantly affecting the number of customers and revenue. Specifically, revenue in Q4 decreased sharply to $248,805 from $ 525,623 in Q3, a drop of approximately 52.7%.

  Due to fixed costs, the lower revenue couldn't cover all the expenses due to lower number of customers services leading to negative net income and profit margins.

## Question 8 (10 marks)

Using the updated budget forecast for Q4. Calculate the number of customers required to break-even for the 4th quarter. (Note: Similar to question 3 - for this analysis, you may assume all costs for Q4 except food supplies and beverage supplies are fixed.)

- CM = Price – VC

  CM = ($30+$15) – (30%*($30)) + 35%*($15))

  CM = $30.75


  Break Even Analysis = Fixed Costs/Contribution Margin

  BEA = $197,541.56 /$30.75

  BEA = 6424.12

  BEA ~ **6,425 customers in Q4**


  The restaurant would require 6,450 customers in Q4 to break even.

## Question 9 (10 marks)

The owner's target profit of $150,000 per year target would be $37,500 per quarter.

a) How many customers would they need to reach this target in Q4?

- Profit = Price*Quantity – VC * Quantity – Fixed Costs
  Profit = (Price-VC)*Quantity – Fixed Costs
  Profit = CM*Quantity – Fixed Costs
  Quantity = (Profit + Fixed Costs)/CM
  Quantity = ($37,500.00 + $ 197,541.56)/ $30.75
  Quantity = **7643.63**
  Quantity ~ **7644 customers per year**

  The restaurant would need to serve **7,644 customers per year** to make a profit of $37,500.00.

b) What % of seating capacity would the restaurant need to operate at to reach this target? Is this possible?

- Total Seating capacity per day = Seats * sittings per day
  Total Seating capacity per day = 25*3 = 75 sittings per day

  Total Seating Capacity per year = sitting capacity per day * number of trading days
  Total Seating Capacity per year = 75 * 91 = 6,825

  Percentage of capacity required to meet the target = (Target Seatings per year / Seating
                                                                   Capacity per year)*100
  Percentage of capacity required to meet the target = (7644.00/ 6825)*100
  Percentage of capacity required to meet the target = **112%**

  The restaurant would need to operate at approximately **112% of its seating capacity** to reach the target of serving 7,644 customers per year and achieve a profit of $37,500. This is clearly above the capacity possible due to social distancing laws which is why it is not possible to earn a profit of 37,500 during Q4. At maximum, an approximate profit of $12,500 can be earned in Q4 while adhering to social distancing laws.

## Question 10 (10 marks)

A large company wants to ensure their staff get together socially once a month face-to-face. They offer to book out Ombana's restaurant fully for 1 lunch a month during April, May and June. They ask for a 20% discount on the food and drink prices. They would provide 25 customers, fully booking out the restaurant for the lunch sitting. Calculate if this deal makes financial sense and explain if you would accept the deal given the circumstances.

- Average Food Price  = $30.00
  Average Drink Price = $15
  Cost of Food = $9.00
  Cost of Drink = $5.25


  Discounted Food Price = $24.00
  Discounted Drink Price = $12.0


  Expected revenue without discount for lunch siting for 25 people= ($30+$15)*25 = $1,125

  Total revenue for lunch sittings for Q4 based on forecasted capacity utilization:

  April: Customer = 25*83%=20.75
         Revenue = 20.75 * 45 * 30 = $28,012.50
           Revenue for one lunch sitting = $933.75

  May: Customer = 25*82%=20.5
         Revenue = 20.5 * 45 * 31 = $28,597.50
         Revenue for one lunch sitting = $922.50


  June: Customer = 25*78%=19.5
         Revenue = 19.5 * 45 * 30 = $26,325.00
         Revenue for one lunch sitting = $877.50

Total Revenue for Q4 without deal = sum of revenue of 3 months = $82,935.00
Total Revenue without deal for 3 lunch sittings = $2,733.75
Discounted Food Price = $24.00
Discounted Drink Price = $12.0
Total Revenue per customer with discount = $36.00
Total lunch revenue per sitting = $900.00
Lunch sitting revenue over three months= $2,700.00

From the above calculations first, it is clear that the discount does not fall below the cost price for the food and beverages and as the only variable cost, this is only relevant criteria that we need to ensure is higher than the expected financially. Second the money earned from this deal = $2,700 vs Money earned from the regulars $2,733 is not a huge financial difference

Now that we know that financially there is no impact for the restaurant, we can try and compare how this now impacts the restaurant future. First main question is in what ways does taking this deal harm the restaurant?

The company's deal offers lunch sitting only once a month each month which is minimal compared to if it was weekly, which could impact the monthly revenue from daily lunches for regular customers. However, since the restaurant operates daily and company wants to book only 1 lunch sitting per month, this would not affect the rest of the month's revenue. This, however, also would impact regulars who keep coming in for one sitting each month. While this is quite minor, its clear that the biggest risk here is losing the loyalty of the regulars.

This can be mitigated by giving discount coupons that they can utilise on their next return and clearly communicating and announcing that the restaurant will be closed in advance to the regulars on a notice board so that the regulars do not feel cheated or left out or feel like they were not cared about by the restaurant. Since this is a once in a month activity while the sitting itself is financially insignificant whether it is the regulars or the corporate employees who are paying, building relationships with corporate companies will open new doors to future business and is a strategic business decision that must be taken to expand its business and customer base as well as profits to increase customer base once the social distancing rules are repealed.

Therefore, if all the above steps are correctly taken and customer expectation is managed correctly, meaning a good relationship with the regulars is maintained, then the correct business decision here with respect to the future of the restaurant would be to take this business deal. However, if that is not possible and there is a major risk to customer loyalty from just a single lunch sitting per week then it is not worth taking the deal, however logically the chances of this risk are very low.

## Question 11 (15 marks)

Ombana's have never offered takeaway food before. However, given the changing industry, they want to evaluate if offering takeaway meals will be beneficial for the business. They could hire their own delivery driver for $150 a night and take phone orders, or they could outsource to UberEATS to offer food deliveries. UberEATS take a 30% commission on all sales booked through their platform.
   a) Explain how Ombana's could evaluate if it is a good idea to offer takeaway.

   - To evaluate if offering takeaway is a good idea, Ombana's should consider the following factors: -

     **Market demand**: Analyze the local market to understand the demand for takeaway meals in the area. Are competitors offering takeaway services? How popular is the restaurant in

the local area that people will want to eat it at home as well ?

**Revenue projection**: estimate the potential revenue from takeaway meals based on the number of expected orders, average order value, and frequency. Ombana's can conduct a small survey of existing customers to gauge interest.

**Cost Implications**: Evaluate the additional costs involved in offering takeaway, including packaging, additional staff( if needed), delivery costs (if using their own driver), and commissions( if outsourcing delivery)

**Kitchen capacity**: assess whether the kitchen can handle both dine-in and takeaway orders without negatively affecting the dine-in experience.

**Profitability assessment:** Estimate the potential profit margin from takeaway meals by subtracting all additional costs (packaging, delivery, commissions) from the expected revenue. If the takeaway service would significantly reduce profit margins compared to in-restaurant dining, the decision may require more strategic thought.

**Kitchen Capacity:** Assess whether the kitchen can handle both dine-In and takeaway order preparation without negatively affecting the dine-in experience.

**Logistics and order management**: There is a lot that is required to convert online orders to queue tickets and ensure smooth service without chaos and disorganisation overwhelming the staff. Most of what's needed here is technology like Point of Sales software that integrated with online services, direct ticket queuing and simple preparation, etc. So the real question is what kind of investment would be needed to incorporate the new model of operating efficiently and how many different types of such technology and R&D is needed.

**Brand Impact**: Will offering takeaway align with Ombana's brand image? for example, if Obama is a fine dining restaurant that is offering takeaway may not fit with its positioning unless it is designed thoughtfully.

**Customer Feedback and Pilot testing**: While we can on paper try and predict many variables of this model, the real accuracy can only be achieved through practical testing which is something that Ombana's will have to do on a small scale to understand what scope it has in the delivery market and if its operations can handle the extra load.

b) Explain how Ombana's should decide whether to hire their own delivery driver or to outsource – include calculations in your discussion.

- To decide whether to hire a delivery driver or outsource to UberEats, Ombana's should compare the costs and benefits of each option as below:-

Hiring Fixed cost = $150

Total Weekly Cost for 7 nights = 150 * 7 = $1,050 per week

Outsourcing cost = 30% on each sale

In order to accurately understand we need to calculate the cost per delivery based on number of orders.

This we can do by calculating the cost of delivery as the number of orders increase.

For Delivery driver: $150/Number of orders
For UberEATS: 30% of $30+15 for food and drink prices for various orders
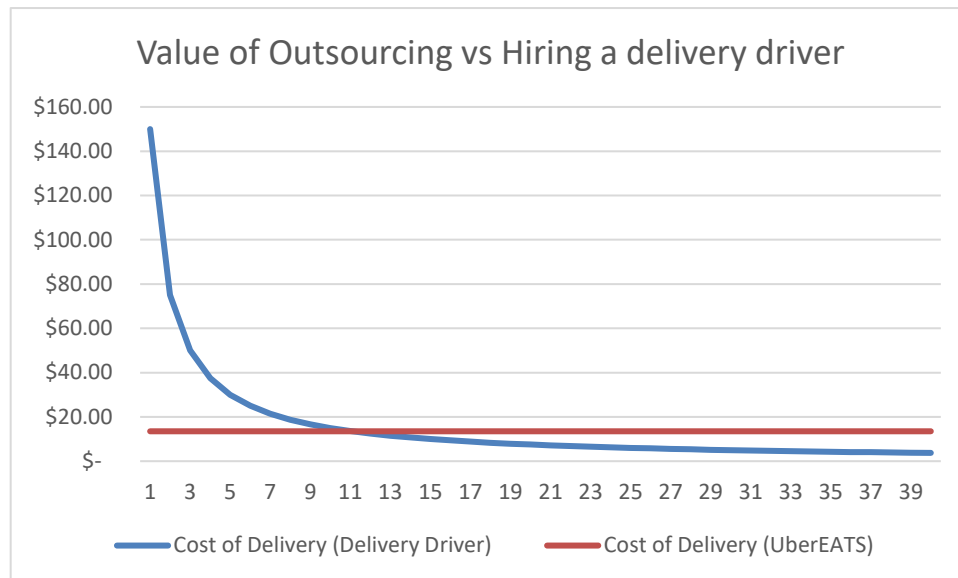


From our calculations, its very clear that there is a specific number of orders beyond which hiring delivery drivers are cheaper than UberEATS.

From the graph, it is clear that if Ombana's has more than 12 takeaway orders a day, it should hire a delivery driver as it is more cost effective. If it has less than 12 takeaway orders, it should use UberEATS for a more safer approach.

c) Which decision would you make and why?

- I would start by outsourcing to UberEATS initially, then reconsider if we need to hire a delivery driver once the orders stabalize and there is a clear demand volume and if this demand volume is more than 12 orders per day.

The reason to start with UberEats is that Ombana's incurs cost only when orders are placed. This is ideal in the beginning when the number of takeaway orders is uncertain. The variable cost structure helps mitigate financial risk. Outsouricng also is easier operationally as it eliminates the costs associated with logistics, hiring and training a driver or maintaining a delivery vehicle. It allows for better flexibility to scale up or scale down depending on demand and allows for better evaluations at a later time with clear data that UberEATS usually records as well.

By starting with UberEATS and transitioning to an in-house driver once there is more demand, Ombana's can optimise costs while minimising risk.

## Question 12 (10 marks)

Given what you have learned based on your above analysis of Ombana's restaurant, discuss whether you think many restaurants in Sydney will close down due to social distancing regulation, or if they will be able to quickly adapt their business models to continue profitable operations.

- Many restaurants in Sydney face significant challenges due to social distancing regulations, but their ability to adapt quickly could determine whether they survive or close down. Let's consider some key factors that may influence their outcomes:

**Impact of reduced capacity**: Social distancing measures mean fewer patrons can dine in leading to reduced revenue from in-house dining. For restaurants relying heavily on dine-in customers, this can severely impact profitability, especially for establishments with high fixed costs such as rent and utilities. This is why smaller venues are at higher risk of closure because they simply do not have the space needed

**Adoption of take away and delivery models**: Many restaurants have already started adapting by offering takeaway and delivery services. By partners with platforms like UberEATS, restaurants can reach new customers without the need for a large in-house staff or dine-in space. However, the 25-30% commission eat into profits which is why it is difficult for many restaurants to be profitable on delivery alone. Some restaurants can also hire delivery drivers in house if they have a very high order volume.

**Operational adaptation and flexibility**: Adapting the menu to focus on food that that travels well or streamlining operations can help restaurants reduce waste and improve efficiency. Many restaurants have successfully restructured menus to include family-sized meals, meal kits or simpler dishes that don't require presentation and service expects in a dine-in environment.

**Diversifying revenue stream**: Some restaurants have expanded into retail, selling sauces, meal kits, catering for events or merchandise which can in some cases also be sold alongside takeaway meals as well. For example, those offering DIY meal kits allow customers to recreate the restaurant experience at home catering to people interested in cooking but wanting restaurant quality ingredients and instructions.

**Government assistance and Rental agreements**: Many restaurants have benefitted from government subsidies, such as wage support schemes, which have helped cover payroll and other expenses during the pandemic. If these subsidies continue, they may provide temporary relief that allows restaurants to adjust their business models. Landlords may also offer rent concessions especially as many commercial spaces remain vacant, allowing restaurants to maintain operations without facing full rental costs.

**Consumer behaviour and Market demand**: Despite restrictions, there is still demand for quality food and unique dining experiences. Restaurants that can leverage their brand and customer loyalty may succeed by offering tailored experiences, like themed takeaway packages or virtual cooking classes. In some areas local support has been quite strong, asking residents to support local businesses rather than international food chains.

While some Sydney restaurants may face closure due to reduced in-house capacity and higher delivery fees, many will adapt their business model to weather these challenges. Restaurants that pivot quickly and creatively to adopt new revenue streams, improve operational efficiency and leverage takeaway or delivery options stand a better chance of surviving. The long-term impact will likely vary across various segments with smaller or high cost venues at greater risk while adaptable, community focused or high volume restaurants may be positioned better to succeed.