

# **GEZ PETROL STATION: USING COST-VOLUME-PROFIT ANALYSIS FOR PLANNING**

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## **INTRODUCTION**

As an Area Manager of GEZ Bhd, a major oil company in Malaysia, in 2010, Mr Aiman was responsible for directing the sales activities of more than twenty petrol stations in the northern region of Malaysia. He was also responsible to train petrol station dealers and staff, initiate sales promotion and implement key initiatives to improve sales. Despite being a stable business with continuous increase in vehicles, often times, petrol station operators faced with the difficulty of sustaining the business, leading to the termination of the dealership license. The lack of knowledge in finance and costing, among others, contributed to business failures. Realising the importance of management accounting concepts and tools such as cost allocation and CVP analysis, Mr Aiman believed that the dealers and their relevant staff should have the knowledge in cost accounting. They should be able to differentiate between variable and fixed expenses, prepare a financial statement and perform a cost-volume-profit (CVP) analysis. To help the dealers perform the CVP analysis, an understanding of how to build and use a financial model associated with the analysis is an added advantage. In coming up with the data and building the financial model, Mr Aiman sought the assistance of Rizal, a trained management accountant.

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## GEZ PETROL STATIONS

GEZ developed and operated petrol stations under three basic concepts, namely Company Owned Station (COS), Partially Company Owned Station (PCOS) and Dealer Built Station (DBS). The operators of PCOS and DBS were landowners themselves or those being nominated and agreed by GEZ. Under the Dealer Built Station concept, the operators were not the landowners.

Normally, a GEZ petrol station conducted two main businesses – the fuel business and the convenience store business, known as *SelesaMart*. Under the fuel business, the petrol stations sold Petrol Ron 95 (R95), Petrol Ron 97 (R97), and Diesel, with sales of 200 million litres of petrol and 150 million litres of diesel monthly. The *SelesaMart* stores sold, among others, groceries, snacks, drinks, confectionery, and cigarettes. On average, there were about 2,500 stock keeping units (SKU) in each store. In addition, there were more than 40 business partners operating at GEZ service stations. Affiliations with reputable business partners have always been GEZ's preference at the service stations and convenience stores, which include amongst others, A&W, AmBank, American International Group (AIG), Bank Rakyat, BSN, Burger King, CIMB, Délifrance, Dunkin' Donuts, Giant, KFC, Maybank, McDonald's, OCBC and RHB, to name a few. Automated Teller Machines (ATM) were also installed at some of the service stations and GEZ also provided counters for *Touch 'n Go* reloads.

One of the advantages of operating a petrol station is that the business is stable and consistent in the long run. With the growing number of vehicles in the country, the demand for fuel kept increasing. Another advantage was that the operators did not have to spend on advertising as

GEZ would do it. There was no problem in dealing with customers as the price of fuel was fixed.

There were several disadvantages associated with petrol stations. First, the fuel business had a very low profit margin. It was important that operators managed their cash collection very well. In 2010, the cost of fuel was about 94% of the sale price. In addition, there was a product loss due to evaporation of fuel during filling. Another problem that petrol operators had to face was the increasing cost of credit card fees paid to banks as more and more customers were using credit cards. The credit card fee imposed by banks was 1% of the sales price.

#### **DEVELOPING A CVP MODEL: THE CASE OF BARON SERVICE STATION**

To begin the assignment, Rizal gathered the necessary data from Baron Service Station (BSS). The model that he would develop could be applied by petrol station operators of the same category. BSS was located in a city, in the northern region of Malaysia. It was one of the busiest petrol stations in the city with monthly average sales of about RM1.7 million in 2009. Of the amount, RM1.6 million was generated from the fuel business and the remaining from *SelesaMart*. Under the fuel business, the sales proportion was about 79% for R95, 2% for R97, and 19% for diesel. All products were subject to product loss due to evaporation of fuel during filling. The tolerable product loss was 0.3% for diesel and 0.5% for petrol. The petrol station had four pumps for petrol and one for diesel. The total number of nozzles was 20.

As for *SelesaMart* business, the average gross profit margin of the products is 20%. The operator paid a royalty of 5% of the sales value to GEZ. In addition, a fixed equipment fee was paid on a monthly basis.

### **Revenue and Cost of Fuel**

In 2009, BSS generated a sales revenue of RM20,682,189.60 comprising RM19,251,897.60 of fuel sales and RM1,430,292 of *SelesaMart* sales. Table 1 shows the information on sales units in litres, price per litre, cost per litre and the percentage of product loss of the three types of fuel in 2009.

Table 1: Revenue and cost of fuel

<b>Products</b>	<b>Sale (litres)</b>	<b>Price per litre (RM)</b>	<b>Cost per litre (RM)</b>	<b>Product loss</b>
R95	8,459,604	1.80	1.6856	0.5%
R97	174,576	2.05	1.9356	0.5%
Diesel	2,037,072	1.80	1.7388	0.3%

### **Employees and Salary**

BSS hired one station manager who looked after both businesses. Under his direct supervision were two supervisors – one for the fuel business and one for *SelesaMart*. Twelve crew members were located at the forecourt to assist customers in filling the fuel, working in different time shifts. At any point of time, there were two cashiers working at the sales

counter – one will concentrate on the fuel transactions, and one for the shop, even though they handle both transactions at times. In total, there were 6 cashiers working for BSS.

One clerk was responsible for documenting and recording the transactions of both businesses. Two general workers were hired to ensure the cleanliness of the station. A security guard was appointed to take care of the station during night time. The monthly salary per employee according to jobs is shown in Table 2:

Table 2: Monthly salary and number of employees

	Monthly salary per person (RM)	No. of staff
Station manager	3,206	1
Supervisor	1,674	2
Cashier	950	6
Crew	812	12
Clerk	960	1
General worker	805	2
Security guard	1,000	1

## Other Expenses

Credit card sales accounted 40% of total sales. A 1% fee was charged by banks for credit card transactions. Sixty percent of the electricity, water and telephone expenses were allocated to the fuel business and 40% to *SelesaMart*. During 2009, Baron spent RM75,000 on electricity, water and telephone.

BSS rented several pieces of equipment which include gondolas, a chiller, a pelmet and a cashier's counter for the operation of *SelesaMart*. The rental payment of the equipment for 2009 was RM7,380. The petrol station paid an insurance premium of RM1,920 in 2009. The insurance package covers robbery, fire, public liability and workmen compensation for the entire business. During the same year, BSS spent RM2,400 on stationeries.