

Effect of sugar price increases on food sellers



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The consumers in Malaysia have variety of menus for their daily diet, and sugar is one of the most important ingredients. Thus the market of sugar is an important factor to Malaysia's economy.

' At the end of 2009, the government intended to decrease the subsidy of sugar. The purpose of this proposal was to promote a healthier lifestyle.'[1] The cheap price of sugar has lead to overconsumption. There is 105% increase in overweight or obese Malaysians from 1996 to 2006.'[2] Early 2010, the government has increased the price of sugar by RM0. 20. However the increment was not because of the decrement sugar's subsidy but it was because the increase in price of raw commodity.'[3] In 16th July 2010, government decrease the sugar subsidy by RM0. 25. This is one part in Malaysia's subsidy rationalisation process. When the price of sugar in Malaysia was being compared to sugar price in other region, it was proven that sugar's price in Malaysia is much lowered. Compared to sugar price in Thailand which is RM2. 60, Malaysia is only RM1. 90. It does not surprise us at all when Malaysia's subsidised goods were being smuggled to neighbouring countries.'[4]

' The government would have to spend RM1. 26 billion if the price of sugar maintain at RM1. 45 per kilogram. As the price of sugar had increased to RM1. 90 per kilogram, the subsidies now worth almost RM1 billion only. Government only need to spend RM0. 80 for every kilogram of sugar.'[5]The government spending is reduced and through this rationalisation process has gave many benefits to Malaysia which will be discussed later.

Although there were many benefits were gained, the increased in sugar's price gives large impact to the food industry and the consumers. ' However, this research will focus on the impacts of increase in sugar's price to the small food sellers in Shah Alam. I chose to do this research in Shah Alam mainly because I want to study on how the increase in price of sugar affects an industrial area. In Malaysia, there is only four main sugar factory; one of them is in Shah Alam which is Central Sugar Refinery (CSR). The research would be interesting to conduct, since the supply can easily distribute to the consumers. This factor, in theory, should have created a more efficient market for the food industries.

Besides that, increment in price of sugar likely to be happen again in the future time as the government wants to decrease the sugar's subsidy gradually. So, by doing this research, I can educate the society to prepare themselves on the consequences that they might face in the future.

In the beginning of the research, I am expecting the food sellers in Shah Alam to be slightly affected by the increase in price of sugar. The food sellers will increase the price of their product and the demand of their product will decrease.

2. 0 The Research

2. 1 Objectives

This research main aim is to study the effects of increase in price of sugar to food sellers in Shah Alam. Yet, in completing the investigation, this research has a few objectives that need to be obtain in order to answer the research question.

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To determine the effect of increase in the price of sugar to its supply, costs and income of the food sellers.

To identify the demand of the sugar after the price of sugar has increased.

To investigate the causes of sugar shortages in Shah Alam.

To investigate the condition and operation of the market of sugar after four months of price of sugar has increased.

To find any recommendation on this issue.

2. 2 Hypothesis

The hypothesis is:

In the short run the food sellers in Shah Alam were only slightly affected by the increase in price of sugar. The food sellers will increase the price of their product and the demand of their product will decrease.

2. 3 Methods

Three methods had been chosen to be used in this research. Each method was done specifically to obtain the objectives that had been set before.

Interview

The first method chosen is through interview. The interview was done to investigate the supply-side after the price of sugar has increased. It involved ten food sellers and two grocery retailers in Shah Alam and six bakeries had been chosen for the interview. The result is assumed to represent the whole area of Shah Alam. The aim of the interviews is to achieve the first, second,

third and fourth objective (2. 1. 1, 2. 1. 2, 2. 1. 3, 2. 1. 4 and 2. 1. 5). The questions to be asked for interviews can be referred in Appendix A.

Surveys

Aside than the interview, a survey was done also to achieve the second objective (2. 1. 2). The survey was in the form of questionnaires and involved residents around Shah Alam which were chosen randomly (Appendix B).

Secondary research

The last method chosen through the secondary research; which were through internet and library research. This method was conducted to achieve the fourth objective (2. 1. 4 and 2. 1. 5).

2. 4 Theoretical Framework

The theories that support the aims of this study are as below:

Theory / Term

Definition

Law of Demand

As the price of a product falls, the quantity demanded of the product will usually increase, *ceteris paribus*[6].

Law of Supply

As the price of product rises, the quantity supplied of the product will usually increase, *ceteris paribus*.

Elasticity of demand

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A measure of how much the demand of a product changes when there is a change in one of the factors that determine demand.

Price elasticity of demand (PED)

A measure of how much the quantity demanded of a product changes when there is a change in the price of the product.

Elastic demand

PED is greater than one and less than infinity. A change in the price of the products leads to a greater than proportionate change in the quantity demanded of it.

Inelastic demand

The value of PED less than one and greater than zero. A change in the price of the product leads to a proportionally smaller change in the quantity demanded of it.

Subsidy

An amount of money paid by the government to a firm, per unit of output.

2. 5 Scope of Research

This research will study the market mechanism of sugar and food around Shah Alam (microeconomics). The demand of sugar is studied to determine whether removal of subsidy has impact on it. This research will focus on the demand side and supply side of food to study the implications of increase in sugar's price.

3. 0 Data Collection and Analysis

The following results obtained from the research done. The results are based on the surveys and interviews that represent the whole community of food sellers and bakers in Shah Alam.

3. 1 The supply side of the food market sold by the food sellers

The supply curve for the food

Effect increment of price of sugar on 1st January to the supply of food:

The supply curve of Graph 1 has shifted to left, which caused the lowering supply of food by the food sellers in Shah Alam. The reduction is approximated to be 10%. However, there were 10% increments in the supply of food after four months shown by Graph 2.

Average price of food (RM)

S2

P2

pP S1

P1

0 Q2 10% Q1 Average quantity of food

Graph 1: Supply of food after the price of sugar increased on 1st January

2010

Average price of food (RM)

S2

S3

P3 P2

Q2 10% Q3 Average quantity of food

Graph 2 : Supply of food after four months of the increment of price of sugar on 1st January 2010

On 16th July 2010, when the price of sugar increased, the food sellers increased their food supply about 25%.

The price of food.

To take the price of food as example could be difficult because there are ranges of food. Hence I chose ' Teh Tarik' as example. ' Teh Tarik' is a type of drink that is popular in Malaysia. It is actually a type of tea that is made by special technique by Malaysian and being drink by all races in Malaysia.

Period of time

Before 1st January 2010

1st January 2010

16th July 2010

Price of ' teh tarik', RM per glass

1. 20

1. 50

1. 80

Table 1: The increase in price of food

The price of food continue to increase because to the increment on the cost of production.

Income of the food sellers

Due to the severity of the situation in the market during the increase in price of sugar, all the income of the food sellers has decreased. The average decrement in income faced by them was 20% after the price of sugar had increased on 1st January. After four months, the average increment in income is 20% back to the equilibrium[7]. Then when the price of sugar increased again on 16th July, the average decrement in income was 30%. After one month, the average increment in income is 20% (Refer Graph 3)

The costs of production.

From the interview, all samples reported an increment in the costs of production. The costs had increased for 13. 8% after the price of sugar had increased on 1st January and the increment shown by Graph 5. When the price of sugar increased in 16th July, the cost increased to 10. 1% from the previous cost. This cost is variable cost[8]. The market is considered to be short run (1st Jan) and long run (16th July). (Refer Graph 4).

Cost, RM

10. 1% AVC3

13. 8% AVC2

AVC1

Graph 4: The average variable cost of production Average quantity of food

The detail on the cost is shown in Appendix A.

3. 1. 5 Measures taken by food sellers to overcome the problem.

The measures taken by the food sellers to overcome the cost experienced are:-

Increase the price of the product

Decrease the quantity of product being sold

Decrease the amount of sugar in the product

Extent the sales time

3. 2 The demand side of the food market

The demand shows the significance effect of increase in price of sugar to the food market and the sugar market itself.

3. 2. 1 The demand for sugar when the price of sugar increased.

The demand for sugar has increased when the price of sugar increased on 1st January. Even though, the price of sugar increase again in 16th January,

the demand for sugar continue to increased. Hence the demand curve shifted to the right for both situations.

Price of sugar, RM/kg

P

D1 D2

0 Q1 Q2 Quantity of sugar, kg

Graph 6 : The demand for sugar when the price of sugar increased.

3. 2. 2 The demand of food after the sugar price had increase

When the price of sugar increased on 1st January, the demand of food decreased. However after four months, the food demand was back to normal. Then on 16th July, although the price of sugar continued to decrease, the demand of food at Shah Alam also continue to increase. The increment was about 15%.

4. 0 Evaluation

In this section, we will investigate the behaviour of the demand and supply and how exactly it had affected the food retailers and bakers in Shah Alam when the price of sugar increased.

4. 1 The market mechanism of sugar when the price of sugar had increased

The demand of sugar continued to increase after 1st Jan and 16th July even though the price had increased. ' The consumption of sugar in Malaysia is

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about 1.3 million tonnes and up to two million tonnes of refined sugar is produced annually'[9].

The PED[10] for sugar after 1st Jan is 2.175. This indicates that the sugar has inelastic demand. According to the theory, if a product has elastic demand, then if price is raised, the quantity demanded will fall by more in comparison and so the total revenue gained by the firm will fall. However, the demand of sugar continued to increase; was not following the theory. Government noticed that the demand of sugar was not affected by the increased in price. Then they proceed with rationalisation subsidy and increased the price of sugar by RM0.25 on 16th July.

New PED was created which was 0.66. The new PED indicating that demand of sugar was inelastic and this also gave a signal to the government that the market of sugar was back to normal. Sugar is a necessity product therefore it should have inelastic demand. The increment on price of sugar on 16th July was a first step for rationalisation subsidy programme. 'The government continued with this programme and on 4th December, the price of sugar was increased again.'[11]

Price of sugar, RM/kg

1.90

1.65 a

D b c

Q2

Q1 Quantity of sugar, kg

Graph 7: The demand of sugar

Based on the Graph 7, if a good has inelastic demand, before the price is raised, the revenue gained is equal to “ revenue box b”+” revenue box c”. After the price is increased, “ revenue box c is loss” and “ revenue box a” is gained in return. Thus holding in this theory, government is expected to decrease the sugar’s subsidy, increase the total revenue and at the same time, hopefully decrease the consumption of sugar to promote healthier lifestyle.

After 1st Jan, the increase in price of sugar gave a shocking experience to citizen in Shah Alam even around Malaysia itself. In short run, the behaviour of the market was not stable. Mostly this was because consumers are afraid if the price of sugar is going to increase and sugar shortages are likely to happen. Malaysia offers the lowest price of sugar in the region and hence sugar are being smuggles to countries nearby. (see Table 2)

Country

Price of sugar (RM)

Malaysia

2. 10

Indonesia

3. 50

Singapore

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3. 80

Thailand

2. 80

‘ Table 2: Different price of sugar among different countries in the region on September 2010.’[12]

In the long run (16th July), the demand of sugar continued to increase but proportionally. Consumer knows about rationalisation programme and the quantity demanded continued to increase because of festive season.

4. 2 Importance of rationalisation of subsidy

‘ In 2008, sugar has not been subsidised. It started in 2009 when the price of raw sugar increased from US\$220 per metric tonne to US\$440. Earlier 2010 the government decided to remove the subsidy gradually as the price of raw sugar increased to US\$660.’[13]

Price of sugar (RM)

S + subsidy (3)

S + subsidy (2) S

1. 65

1. 90

3. 00

S + subsidy (1)

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S + subsidy (1)

P3

1. 45

Graph 7: Removal of subsidy on sugar 0 Qe Q3 Q2 Q1

Based on Graph 7, subsidy was first given (S+subsidy(1)) and then it was reduced gradually. Consumers are indirectly affected as the government will use tax revenues to fund the subsidies and involves an opportunity cost in terms of reduced government spending on other things.

Importance of removal of subsidy.

' The benefit of subsidy is manipulated by the wealthy, foreigners and large firms. The large firms manipulate the use of subsidies and better off compared to the poor citizen.

Reduce deficit and national debt. Thus achieve the development goals.

' Malaysia have to import 99% sugar supply.'[14]According to the law of demand, when the price of a good increased, the quantity demanded of the good will fall. Therefore when the subsidy is reduced, the sugar demand will decrease, hence the imports will decrease too. Thus the amount of deficit will fall.

' From 1998 to 2009, the deficit increased from RM5 billion to RM47 billion. The national debt is rising to RM362 billion. If the government debt continues to increase at rate of 12% per annum, Malaysia could go bankrupt by 2019 (RM1158 billion debt) and ended up like Greece. In order to save the country, <https://assignbuster.com/effect-of-sugar-price-increases-on-food-sellers/>

Malaysia needs to increase its GDP[15]and reduce government expenditure. Government spent RM74 billion in 2009 for subsidy and RM3. 4 billion was for food. When sugar’s subsidy is removed gradually by RM0. 20 until 2012, by 2014, Malaysia will save RM1237 million. Deficit and debt will be reduced by RM103 billion in five years.’[16]

Reduce opportunity cost and use the spending in other sectors or even for merit goods.

Part of New Economic Model and 10th Malaysia Plan.

Improve competitiveness and ensure optimal utilization of resources.’[17]

‘ Malaysia’s competitive index has improved from 18th to 10th.’[18]

4. 3 Food market mechanism when the price of sugar increased in short run.

Average price of food, RM

S1 S2

E3

P3

E1

Q1

E2

P2

P1

D2

D1

Average quantity of food, Q

10%

Q1

Q3

Q2

Graph 8: Average demand and average supply of the market of food when the price of sugar increased in 1st January

E1 was the equilibrium of the market of food when the price of sugar is not increased while E2 and E3 shows the new equilibrium when the price of sugar increased.

The movement of D1 and S1 looks insignificant; however the reduction is big enough to cause the income of the food retailers to decrease significantly. There was 10% decrement for both supply and demand. This was caused by three factors which are substitutes, real income and government policies (campaign).

Average price of food, RM There are wide range types of foods; hence there are a lot of substitutes (determinants). When the price of food increased,

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consumers tend to find other substitutes even in short run. This caused the demand curve to shift to the left from D1 to D2. The second factor was real income of consumers decreased; purchasing power decreases. When the price of sugar increased, many goods increase their price due to production cost increased. CPI[19] mostly for all types of goods increased (Refer Appendix C). Therefore real income of consumer decreased and they choose to decrease the amount of food to buy and rather cook by themselves. The third factor was government policies (campaign). One of the main objectives of government to increase the price of sugar was to create awareness among consumer to decrease the amount of sugar consumed. This was also the objectives of 5M campaign which to decrease the amount of sugar consumed. From this campaign, the consumer avoid from buying ready food because the food sold contains a lot of sugar and it is not healthy.

4. 4 Food market mechanism when the price of sugar increased in long run.

The second increment of sugar is accepted as a long run increment because the consumer was aware of rationalisation subsidy programme.

Price of food, RM

E1

S1

S1

P3

E2

Q5

Q4

Q3

Q1

15%

25%

25%

25%

25%

25%

D2

S2

D1

P2

P1

D1

Average quantity of food, Q

Q2

Graph 9: The demand and supply side of food when the price of sugar increased on 16th July

The graph shows that the demand and supply curve shift to the right. The supply increased by 25% while the demand increased by 15%. This is due to festive season (seasonal changes) stated earlier. The consumer had to increase their demand for food as it were necessity for them. Aware of this situation, the food sellers increased the food supply to generate more income.

From the surveys conducted the public are aware of the increment in the price of sugar and of course the price of food. Most of them decreased the act of buying food because there are a lot of choices in Shah Alam. There are many wet markets, supermarkets and hypermarkets. The consumer can buy raw materials and cook their food themselves and save their money.

(Appendix C)

However, when the festive season came, there are traditions in Malaysia where there are markets that sell variety of ready foods in this season. Therefore many consumers increased their consumption of foods because of the festive season. In addition, Malaysian has the habit of accepting government plan even though at the beginning they were not satisfied. As time passes by, they accept it as they know it is for their own good; hence the market mechanism of food is back to normal in long run.

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4.5 The burdens that increased price of sugar had caused to the food sellers.

From the interviews conducted, the increased price of sugar affects the income of the food sellers and increases the cost of productions.

Average price of food, RM

D2

D1

S1

S2

P1

E1

E2

P1

Loss of income

Average quantity of food, Q

Q2

Q1

Graph 9: Income of the food sellers

At the beginning, the income of the food sellers was 0P1E1Q1. This was the equilibrium level of income of the food sellers. At this level, the food sellers can support all type of costs. The food retailers live a comfortable life until their income decreased to 0P1E2Q2. The grey area is around 20% percentage loss from the real income.

The food sellers had to decrease their expenditure because of less income. Not even the price of sugar has increased but other materials that needed for production of food also increased. The technology used could not be repair and no replacement investment[20]could be carried out. The sellers need to decrease their living expenses to resort the loss income. They also might need to use their savings especially the sellers that handle small business, hawkers. They will faced big impact as they did not gain a lot of income compared to larger business. Competition increased as food sellers compete to minimize the cost to lower the price of food, thus increase demand.

The sellers reported that they did not agree by the decision of the government especially when the price of sugar increased. There were rumours that the government will increase the price of sugar again, hence the consumers were afraid and thus panic buying happened and the demand of sugar increased. This caused shortages. This affects the food sellers as they cannot find the supply of sugar. For small food sellers who used to buy sugar at mini market had to travel to find other suppliers as shortages of sugar happened. Even at the hypermarket, sugar supply is limited and each people restricted to buy only 2kg of sugar. This has increased the cost of

production and also affects their emotion and the productivity. They even had to increase the price as geographical mobility affects pricing.

In addition, inflation[21](increased in CPI) gave additional burdens to the food sellers (Refer Appendix D) as the price of other products increases (increase in cost of production). Some of the food sellers need to lay off their workers and this caused unemployment rate to increase (Refer Appendix E)

The food sellers had to take few measures to repair this situation. Among the measures taken, they had to extend the sales times and this actually burdened them as the labour cost increased. When they follow the government campaign to decrease the amount of sugar, this change the taste of the product and caused the taste of the consumer changed too.

Mostly the measures taken do not help them but since food is a necessity and due to festive season, the demand increased. After four months, the demand increased heading towards equilibrium and so does the supply curve. The income increased as it was nothing happen. Fortunately, festive season came and the demand for food increased significantly. This helps the food sellers to gain back their loss profit.

Aside from that, 50% of the consumer did not agree that by increasing the price of sugar, the citizen will decrease the consumption of sugar while the other half agree that by increasing the price of sugar, consumption of sugar will decrease.

Not many consumers are aware that government decreased the subsidy to decrease the national debt. This shows that public is unaware of the

country's situation. Incomplete flow of information is one of the reasons of market failure. Therefore government interventions are needed to create awareness so that the public could help the country to increase the national income. ' On the other hand, the research made by the government reported that out of 191 592 Malaysians, 115 703 agree with subsidy rationalisation and 124 750 agree the subsidies should reduced in 3-5 years.'[22]

5. 0 Conclusion

Clearly this research has answered the research question. The food sellers did experience a lot of problems when the price of sugar increased. Shah Alam is the capital city and there is a sugar factory but the food sellers still faced sugar shortages. The cost of production increased the income are lowered. Their emotion are affected but only in short run. The living expenses being reduced and their way of life changed. Although, there were few measures taken, it still cannot fix the problems. Fortunately, the market of food had recovered by itself and fixed the problems faced. The demand increased and the income of food sellers increased. The loss is recovered.

Government should be aware of the impact that could cause the food sellers and should give awareness to the consumer the problems faced by the country (See Appendix F for recommendation). The consumer should understand the burden faced by the food sellers and do not blame them when the price of their product increased. Maybe the consumer could decrease the consumption of import good and increase the consumption of local good instead, then reduce the deficit and hence to help the country. Consumers also can change the way their life by consuming less sugar or

substitute with other type of sugar example brown sugar or any artificial sugar on market. (See Appendix G for sugar substitutes). With this sugar shortages will decrease and substitutes could promote healthier lifestyle.

Nevertheless the balance of payments is now become more stable. The deficit already reduced (see Appendix H) and the current account balance increased[23](see Appendix H and I). However, the GDP growth rate annually decreased. This might due to decrease in government spending. Still, this situation is surprising because rationalisation subsidy programme should increase the GDP but contrary situation happened (see Appendix J). Further research can be done to investigate the reasons of this situation and market mechanism around Malaysia should be study especially the rural areas so that comparison can be made.

6. 0 Limitations

In this research, the exact figure could not be attained. The food sellers do not want to co-operate due to confidentiality. The workers also could not co-operate due to working policies that not allow any interviews. On the other occasion, the respondents do give response but the answers might incorrect, they simply answer it because the answer looks true. This research was carried out in Shah Alam, therefore the data could not represent all population. This research does not specific on one type of food. Hence the data might be inaccurate. However from the observation make, the data is reliable. Time constraint hindered the research progress.