Government policies to control consumption patterns

Business, Marketing

Abstract:

This report aims to examine two government policy options regarding couples, families with male heads, and families with female heads and their consumption of a basket offoodand beverages. The government aims to encourage couples to have children in the future by increasing their standard of living. While this report examines both policy options using the utility maximization technique and the expenditure minimization technique and concepts of consumer theory and price elasticity of demand, this report concludes that neither of the options are optimal in increasing the welfare of the couples and families. Thus, the report suggests that the government should encourage couples and households to save by offering a higher interest rate.

Introduction:

In order to encourage and discourage consumption patterns of various products and to manage consumer policies effectively, governments often design macro and micro economic policies to facilitate the performance of certain behaviour. This report seeks to examine the consumption patterns of different types of households, the first being a household consisting of a couple, and the other households of families with children. The report seeks to analyze the expenditure patterns of a household with a male head and compare it with a household with a female head, along with making comparisons between these families and couples without any children (Nishumura & Shimomura, 2012).

The government’s main aim in the scenario described in thecase studyis to encourage single couples without any children to begin families and they believe this would be possible if the government encouraged the consumption of other products besides food and beverages. Hence, the government has devised two different policy options to facilitate the performance of such behaviour. The first policy aims to increase the disposable income of all households in order to encourage the consumption of products other than food and beverages. Moreover, the government also wishes to provide monetary benefit to households with children which will also increase their disposable income. The second policy option is to discourage the consumption of food by taxing food products. Thus, this will potentially encourage households to purchase other products except for food. However, the government also wishes to ensure that the households do not become worse off and are as happy as they were previously.

In order to examine this situation in detail, it is important to use the aid of various economic and scientific models. Thus, this report will commence with a methodology which describes the methods used to analyze and solve this situation by choosing the best policy option. The report will then commence with an examination of each of the policies and their consecutive impact upon the welfare of these households in detail. The report will then analyze the different policy options and their social context, thereby arriving at a conclusion regarding whether either of the policy options are suitable or suggesting other policy options which may be more suitable for this scenario.

Methodology:

2. 1 Numerical and Theoretical Methodology

In order to analyze the situation described in this scenario, this report will make use of various economic models and theories. The first economic theory and numeric economic model that will be used to analyze these policy options is the Utility Maximization Models and the Expenditure Minimization Models. The first step will be to find the optimal utility bundles of both the goods and the associate level of utility of goods and make comparisons between them in order to determine which bundle is offering the most utility.

The Utility Maximization technique using the Cobb Douglass function will be used in order to find the combination of goods that provide optimal utility for the households. This will then be followed by the expenditure minimization technique to determine which combination of goods will facilitate minimum expenditure and be an optimum and attractive choice for each of the three households. It is also essential to calculate the effect of policy upon the demand for products and to also calculate the demand for the basket of goods without policy. This will be done with the aid of the optimal demand function for each of the households without policy and with policy. Thus the various budget points for each of the options will be determined and the welfare functions of each of the options for the three households will be constructed.

The concepts of consumer theory and price elasticity of demand will also be considered in determining the effectiveness of both policies and determining which policy is the best policy to use in order to encourage the consumption of other goods besides food and beverages.

Graphical Methodology:

The report will make use of the budget points derived in the numerical calculations of the analysis conducted and then construct budget lines and indifference curves in order to determine which options are optimal for the government and provide maximum utility to consumers without decreasing their welfare.

The report will also make use of demand curves and Engel curves to appropriately arrive at a conclusion regarding the two policies mentioned. If neither of the policies seem suitable, the report will offer an alternative policy and provide an explanation of why this policy is more suitable than the ones mentioned in the scenario.

Analysis of Both Policy Options:

3. 1 Price Elasticity of Demand:

The concept of price elasticity of demand measures the extent to which the quantity demanded changes with a change in price. There are basically two types of elasticity which includes elastic demand and inelastic demand. It is essential for governments to know the price elasticity of demand to determine whether the implication of taxes will result in the discouragement or encouragement of purchasing certain products. Thus, in order to determine whether policy option 1 or policy option 2 would prove to be more effective, it is essential for the government to know the price elasticity of demand of food and whether imposing a tax upon food products will result in the discouragement of the purchase of food products and encourage

consumers to purchase other products (Andreyeva,, Long,, & Brownell, 2010).

If the demand for food products is elastic, this means that policy option 2 which is the imposition of a tax upon food products may prove to be effective in encouraging households to purchase other products besides food. However, if the price elasticity of demand for food products is inelastic, this means that policy option 2 may be ineffective in encouraging consumers to demand other products besides food products. However, the government must ensure that the imposition of a tax upon the various households will not decrease their respective welfare and will leave them as happy as they previously were. The imposition of a tax may reduce the welfare of the respective households and may thus prove not to be an optimum policy. Moreover, the demand for food and beverages is likely to be more or less inelastic as food and beverages are necessities which must be consumed (Starr, 2011).

Thus, the concept of price elasticity of demand is applicable in the case of policy option 2 but may not prove to be effective with a 10% tax and possibly not even with the imposition of a 15% tax as if the demand for food and beverages is inelastic, the imposition of a tax will not affect demand to a large extent but may slightly affect demand for all households. However, it will decrease the welfare of male-headed households as they spend a maximum amount of theirmoneyupon food and beverages and may also decrease welfare of female headed households. However, the tax may not be as effective upon the expenditure patterns of couples (Bhargava, 2013).

Utility Maximization Principle:

The utility maximizing principle states that consumers should purchase the combination of goods that maximizes utility and ensures that every dollar spent on that good increases their utility instead of resulting in diminishing utility. Consumers are encouraged to purchase a combination of goods which increases their utility in all respects (Chor, 2010). Hence, in order to find the utility maximization function, it is essential to first find the budget constraint of each good. If the income of each household is approximately $600 and a basket of food and beverages costs $15 while a unit of all other products costs $20. The budget constraint for consumers with $600 for a basket of food and beverages is equal to 40 baskets of goods and services (See Appendix A). The budget constraint for purchasing all other products with an income of $600 is 30 units of other items (See Appendix A). Thus, assuming that consumers are currently purchasing at maximum utility, the utility function for the combination of these two products for couples is:

U(x1, x2)= 12/25(x1) 11/4 (x2)

The subsequent utility functions for the other families are shown in the appendix. While plotting the budget constraints and the maximum utility points on the indifference curves, it is obvious that couples are maximizing their utility with their current combination of food and beverages but male headed families can maximize their utility by purchasing more of other products and less of food and beverages (Gertler & Karadi, 2011). Female headed households can also maximize their utility by purchasing other

products besides food and beverages. However, looking at this scenario, it is obvious that while increasing the disposable income of families with children by offering them extra benefits, this will consecutively increase their standard of living and may encourage couples to have children in the future. Moreover, increasing the disposable income of couples by $40 will only allow them to purchase two additional units of other products. However, the purchase of two of these additional units may increase their standard of living and may allow the government to achieve their target of encouraging couples to have children (Stavins, 2010).

By taxing food and beverages and adopting policy option 2, the government is decreasing utility for all households as most of the households spend a major proportion of their income upon food and beverages. Thus, policy option 2 is not advisable when considering keeping welfare constant for couples and possibly increasing it for families.

Expenditure Minimization Problem:

The government has two motives when deciding upon a policy option, the first being to maximize or improve welfare and to also minimize their own expenditure upon the policy option that they choose (Refer to Appendix B). Under policy option 1, the government is incurring a heavy expenditure upon offering both families child benefits and also offering an income tax benefit to increase disposable income. This will cause the government sufficient expenditure and will not minimize the government's expenditure. However, policy option two is increasing the government's revenue as the government will be imposing a tax upon food and beverages which is a necessity and will

thus be reaping revenue from the sale of food and beverages. The government is not incurring expenditure in policy option 2 but is incurring a lot of expenditure in policy option 1 (Tsai et al, 2010).

Thus, according to the expenditure minimization model, policy option 2 is more ideal than policy option 1 as policy option 2 offers the government additional revenue and policy option 1 is incurring the government sufficient costs.

Looking at the scenarios, of utility maximization and expenditure minimization and price elasticity of demand, both policy options do not seem to be optimal as they are both going in opposite directions and are not coinciding in achieving the government’s objectives. Thus, there is a need to look at an alternative policy option to achieve the government’s objectives. The third policy option to encourage couples to have children and to increase their standard of living may be to encourage savings and encourage couples to save some of their income for the future. By doing so, the government will be encouraging higher amounts of investment in businesses and also increasing the income levels of the couples and households by offering them extra income from the gaining of interest payments. This will also make the future for couples more secure and will encourage them to possibly think of beginning their ownfamily. Thus, the government must increase the interest rate on saving in order to encourage couples to save or the government may also offer a decreased interest rate on borrowing which would increase the money supply and encourage further consumption by households and which could be spent upon other goods and services besides food and beverages

(Andreyeva, Long, & Brownell, 2010). Thus, the government should decide upon an interest rate which would encourage couples to save and a lower interest rate which would encourage them to borrow and increase their consumption (Mytton, Clarke, & Rayner, 2012). However, the optimal policy is to encourage couples and households to save as it would make their future more secure, the money put in banks could be invested elsewhere and the government would not be incurring unnecessary expenditure. Moreover, it would increase the welfare of the couples and households in the long run (Zheng, McLaughlin, & Kaiser, 2013).

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