Profit maximization and baumol model

Government, Capitalism

Managerial Economics August 15, 2007 The key points underpinning the economics of a profit maximizing firm Neoclassical model of the firm states that organization will have the main objective of maximizing its profit within a given period of time. Maximum profit was achieved at the output at which marginal cost is equal marginal revenue. There are several factors which need to be considered when talking about the profit maximizing firm: 1. The assumption of the profit maximizing firm is that there is no segregation between managers and owners of the firm.

Owners economically depended on their firms and therefore tried to make the biggest profit from their businesses. The effectiveness of their firm was measured by the profit declared. In the real world the ownership of the firm (especially for the larger firms) is different from the management. Managers become responsible for all day-to-day operations as well asfinanceobjectives. Those can be different for management and for the owners. Managers tend to satisfy their own well being rather then acting on the best interests of the owners.

Shareholders would like to see the increasing value of the stock from year to year. The separation of ownership from control lead to less power of shareholders over the manager’s behavior as well as less awareness of how efficient the decisions are made. 2. Profit maximizing firm assumes the horizontal marginal revenue curve and U shape marginal cost curve. This means that the market conditions are always ideal, not very competitive and the revenue cost declines as a result of discounts made to encourage the customers to purchase the products.

In reality it is difficult to accurately measure the cost and revenue within organization and therefore difficult to determine the optimal, profit maximizing level. There are a lot of constraints and conditions which need to be evaluated at any given period of time to determine the cost and revenue curves. Rapidly changing conditions will make it difficult and sometimes impossible to make the accurate measurements. 3. Another assumption is that the organization short-term objectives are the same as its long term objectives leading to profit maximization.

In reality, as in long term objective may be to maximize the firm stock value and increase the shareholders profit, the short term objective may be to keep investing in a firm to establish a better position for the future. Other constraints like socialresponsibilityof the firm, imperfect or changing market conditions, demand versus supply curves etc. will affect the objectives of the firm. 4. One of the assumptions of the neoclassical model is that the organizations have a perfect knowledge of the operating conditions.

It is recognized in the modern firm that they operate under the uncertainty level, which, however can be reduced by increasing the knowledge for market, competition andenvironment. With these factors the conclusion is that the profit maximization cannot be the sole objective of a firm. The factors need to be taken into consideration to determine the optimum firm strategy and firm objectives. Critical evaluation of Baumol management model. Baumol model is a sales revenue maximization model. Baumol model is the alternative to the profit maximization model.

The main idea of Baumol model is that the objective of a firm is the sales revenue-maximization rather then profit maximization. The most important points supporting Baumol model are: - The is recognition of separation between firm ownership and management. Managers have discretion to pursue personalgoalsto maximize their own utility. Therefore a minimum profit constraint on management is set up by shareholders to address shareholders concerns and interests. - Manager’s more focuses on their own tangible benefits rather then on profit maximization for the company.

Salary increases are likely related to the level of sales rather then organization level of profit. - Investors interest in the level of sales and trend of sales rather then level of profit. Growing sales tend to give better picture of company potential and therefore attract refinancing. - Rising level of sales recognizes organization’s success and therefore leads to good human relations within the organization. - Direct relation between market share and the level of sales means that the organization is raising its position on the market if its sales level increases.

In other words the market share of the firm goes up. In Baumol model there is an assumption is that the organization using the Baumol model is operating in an oligopolistic market with no true competition. Baumol thinks that it will take longer for the large organizations, which most likely to be competitors, to arrive to the decision making and decision implementation point due to the competition within the oligopolistic market. However it is also said that within the market there is collision between organizations just

to maintain an agreed position where everyone can have their share of the market.

This is certainly an assumption which cannot be applied to every kind of markets. There are two models of sales revenue-maximization which both work under above assumption: the static model and the dynamic model. Static model is a single period model for organization assuming that no competition with other companies exist. In static model a minimum profit constraint is imposed by shareholders regardless of the sales and other conditions of the organization to protect their interests. The excess of maximum profit level over the minimum profit level constraint is the measure of managerial discretion.

There is also an assumption of the U-shaped cost and ? -shape for revenue curves. By looking at the Baumol's static sales revenue-maximization model chart we can see that the quantity produced by the sales revenue maximizer will be the quantity which satisfies the minimum profit constraint and yet allows the greatest level of sales (quantity) to be achieved. The sales revenue maximizer will earn a lower profit, but produce a greater quantity then the profit maximizer. Therefore the sales revenue maximizer will better capture the market share then the profit maimiser.

However in the static model Baumol does not analyze the relationship between price, advertising, total cost and quantity of the produced output. When talking about advertising cost Baumol suggests that the advertising expenditures are constantly grow as a straight line and that the sales revenue increases as increases theadvertisementcost. In the real world

advertisements are made from time to time depending on the organization's marketing studies. Sales revenue also depends on many factors like market conditions, managerial talent and knowledge, firm pricing strategy, quantity produced, total operating cost etc.

In Baumol model we see no attempts to take these factors into consideration. In its dynamic model where the idea is that over the lifetime organization will continue to gain the sales revenue and reinvest the profit into the future organization growth. At a certain point of growth, however, the growth potential will decrease and the level of sales will go down. Even though Baumol raised a point of uncertainty, he failed to place the time within his model and therefore limited the options of explaining the firm behavior.

Baumol model shows that the sales revenue maximizer will produce more output then the profit maximizer. The profit level is also more stable in the Baumol model then in traditional profit-maximizing model. The sales maximizing firm will also have a lower price then the profit maximizing firm. Low cost airline example. Let's take an example of the low-cost airline to outline the points of Baumol model. At a glance it may seem that a logical step to maximize the airline profit in order to reinvest moremoneyinto the new flights and expand the company.

But it may not be profitable for an airline in a long run as the customers may loose theloyaltyto an " always low price" airline because of their quality of service or inconveniencies caused during travel. Actions like flying from the lower cost airports away from the major hubs; reducing the number of flight

attendants per flight; introducing a cheaper meals or no meals at all, offering meals at a separate price; cut on entertainments on board; overbooking of the flights to make sure the flight is always full; buy cheaper older aircrafts, improve maintenance procedures to reduce the cost would lead to short term profit maximization.

On a long run the airline may start loosing customers due to the poor services and inconvenience caused. For example, flying from a low cost airport may result in additional cost for the passengers trying to reach that airport or having a connecting flights from other airports. Significant number of luggage lost would also lead to loosing the customers. Overbooking the flights may cause many passengers not being able to fly at the desired time and therefore loose the loyalty for the airline. Cutting cost on airline maintenance may jeopardize safety procedures and result in catastrophe.

American Airlines Flight 191, a McDonnell-Douglas DC-10 aircraft crashed on May 25, 1979 after taking off from Chicago airport. Investigation showed that it was a result of an improved maintenance procedure imposed by American Airline and saving then over $200 000 a year. For a low cost airline it is vital to fulfill the flight capacity and sell as much tickets as possible because the flights the cost of flying would remain the same whether the plain is flying full or not. This means that the main objective of the low-cost airline is to maximize their level of tickets sold.

The actions like: - reducing inefficiency across the board of the airline, putting innovative and creative business concepts, promoting the teamwork, empowering the employees to encourage their personal involvement in day-

to-day customer service improvement - monitoring the airline market, dynamically determined ticket price per seat, studying customers needs - introducing new routs to popular destinations, organizing convenient connecting flights - have faster connectivity time, faster turnarounds point-to-point flights rather then flying through major hubs, using less congested airports - internet booking, e-tickets - no pre-assigned seat numbers etc. maybe more appropriate for helping to have a low cost operation yet with the high quality standards. The price of the ticket should be determined dynamically (hopefully by specialized software) based on customers demand and supply on a particular route at a particular time. Ideally the ticket price should be the highest with maximum filling of flight capacity.

For example, early booking price may be lower and raised towards filling the flight capacity. Therefore sales maximizing model fits better for the low cost airlines and gives them more chances to succeed in the market. References:
Mark Cook, Corri Farguharson (1998) “ Business Economics”, PearsonEducationLimited Patrick McNutt (2007) “ Study Guide Unit 1. Management Objectives and Stakeholder Value”, Business & Management Education Limited, UK