Market for Edibles at The Two International Airports

Objective

This is a study of the fast food market for the two international airports in Jamaica. The objective of this study is to:

1. define the product and geographic market for edibles at the two international airports; and
2. evaluate the extent by which an exclusive contract to provide fast food at the two international airports would reduce competition in the defined markets.

Market Definition

"A market is defined as a product or group of products and a geographic area in which a hypothetical profit maximizing firm, not subjected to price regulation, that is the only present and future producer or seller of those products in that area, would [be inclined to] impose at least a small but significant and nontransitory increase in price, assuming the terms of sale of all other products are held constant."[1] In other words, to define a market in product and geographic terms is to say that if prices were appreciably raised or volume appreciably curtailed for the product within a given area, while demand is held constant, supply from other sources could not be expected to enter promptly enough and in large enough amounts to restore the old price or volume.

Product Market Definition

The relevant product market is the market for fast food. Fast food here is defined as food that is quickly produced and served, whether it is prepared (such as snack) or partially prepared (such as restaurant food). The argument that leads to this conclusion is as follows.

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1 See Gregory J. Werden, Demand Elasticities in Anti-trust Analysis, 1998, Pg. 25

Generally, there are three types of individuals that are expected to be at an airport at any given time:

(1) people who are either booked for departure or new arrivals (called passengers);
(2) people who are there to either see someone off or to meet someone just arriving (called well-wishers); and
(3) individuals that are employed at the airport.

These three categories of individuals make up the list of potential consumers. Passengers are expected to be at the airport for a minimum of two hours. This critical time limit is chosen because of the requirement that individuals booked to depart must be present at the airport at least two hours before the scheduled departure time. Individuals just arriving are not expected to be at the airport for more than two hours. Well-wishers are expected to spend (on average) two hours at the airport. The reasoning is that a person who escorts an individual to the airport is expected to stay to see the individual off. We assume that a given well-wisher would have the relevant information about departure and arrival times. In order to simplify the analysis we have chosen not to include unforeseen delays.[2] Employees of the airports include the porters, ticket clerks, air traffic controllers, security personnel and custom officers. While employees are expected to spend an average time of their regular working hours at the airport our analysis is only concerned with a specific fraction of their regular working hours. Specifically, employees at the airports are expected to take one hour lunch over a two hour period.

The variety of the consumers that are found in the airports dictate that a wide variety of edibles would be demanded at the airports. The relatively short time that any of these consumers has to eat, also indicates that only a certain type of food would be demanded at the airports. Fast food as defined above is a sufficient definition for the type of food that would be demanded at the airports.

2. *We will show that inclusion of unexpected delays will not change our results.*

Geographic Market Definition

The relevant geographic market is defined to be the premises of the two international airports.

As explained, the relevant market is one in which a small but significant increase in the price of the product would be sustainable, without the consumers being able to substitute towards a relatively cheaper product. In the context of our analysis the factor that would determine the degree of substitutability is the cost of acquiring their best alternative. This cost can be broken into transportation cost and time cost. In other words, in order to delineate the geographic market, one would have to ask two questions: where else can a person at the airport go to acquire fast food? and how costly is it for this person to exercise this alternative?

The Norman Manley International airport is located approximately four miles west of Harbour View. An individual at the airport who wishes to purchase something to eat outside the airport would have to travel approximately four miles east to Harbour View (or approximately six miles west to Port Royal) where they can purchase food at a fast food restaurant. For the three categories of potential consumers cited above, this option would not be viable given the time constraint placed on them. People who are at the airports because of unforeseen delays are generally uncertain about their status and are unlikely to leave the airport. These people are said to be held captive in the market.

There is a parking lot at the Norman Manley International airport where a person has to pay a usage fee of $20 to use. Parking outside the designated area is strictly prohibited. Given that a person has paid to park, he may not be willing to give up that parking space until he is ready to leave. This parking fee, within itself, represent an additional cost if one should decide to acquire fast food elsewhere. These factors would result in the alternative fast food location not being a close supply substitute for fast food on the premises of the Norman Manley International airport. We can thus conclude that the premises of the Norman Manley International airport represents the geographic market for fast food.

The Sangster International Airport represents an approximately 2.5 mile drive (through traffic) in a northerly direction from Sam Sharpe Square. The usage fee for the parking lot is $20. The factors that would constrain a consumer to remain on the premises of the Norman Manley International airport are the same factors that would induce a consumer to remain on the premises of the Sangster International Airport. It is thus concluded that the premises of the Sangster International Airport constitutes a market for fast food.

Implications for Competition

So far the results of our analysis has been the same for both international airports. For the rest of this paper, we shall thus treat both airports as one, in which case we shall refer to the market for fast food as the airport fast food market. This section of the paper seeks to evaluate the feasibility of competition in the airport market. The factors affecting competition which we consider here are:

1. the size of the potential market; and
2. the barriers to entry.

Market Size

The size of the market affects competition in that, if the market is not large enough so that a large quantity of firms can profitably operate in the it, there will not be enough firms with the incentive to compete for market share. The larger the size of the market, the larger the optimal number of competitive firms.[3]

The size of the fast food market at the two international airports is a very difficult concept to measure. The number of employees at both airports may not be difficult to ascertain, but an estimate of the number of these people who take lunch at the airport

3. *The size of the market here is in relation to the setup and other fixed costs of the representative firm.*

would require a time consuming survey.

Also, the size of this portion of the potential population is expected to be relatively small.

The problem of measuring the number of passengers stems from the fact that this is a flow variable. Unlike the usual analysis of the size of a retail market, the consumers are hardly ever the same people. However, this may serve to enhance competition since there is little possibility of a given consumer developing product loyalty. [4] The most suitable statistic for this analysis is the daily average passenger traffic in the Quarterly Airport Traffic Report, which is produced by the Statistic Department of the AAJ.

According to the report, the total passenger traffic for the year ending December 1997 is 4,044,845, an increase of 3.2 percent over the previous year. To compute the daily average we divide by the number of days in the year to get 11,082. Hence, we say that for 1997 on average 11,082 passengers passed through the airports per day.

The most difficult portion of this population to measure is the well-wishers. The number of individuals that accompany a given individual to the airport can, and do vary unpredictably. However, for the purpose of our analysis, it is sufficient to assume a factor of one well-wisher to one passenger. This is a conservative assumption, because it is generally expected to be more. With this assumption it is thus estimated that approximately 11,082 well-wishers will be at the airport on any given day.

Combining these statistics, we expect that approximately 22,164 individuals will be present at the airport on a given day.[5]

4 *This effect could be diminished if the firms operating at the airport have a 'international' reputation.*

5 *Keeping in mind that this is a conservative estimation of a flow variable. Not all 22,082 individuals are expected to be at the airport at the same time within the day. Further more, we do not expect all 2,082 individuals to purchase fast food at the airport*.

This is by any standard a relatively large market and therefore able to accommodate more than one fast food producer.

Barriers to Entry

Generally, competition will thrive in a market where there exists little or no restrictions on entry.[6] In this section we examined the barriers that a potential entrant may face. For the moment, we shall assume that there are no exclusive contracts for the supply of fast food at the airport. We find that the major barrier to entry would be the set up cost of the entrant.

We assume that restaurant food is prepared at the airport and sold/served at strategic locations on the airport's premises. The actual space for the kitchens and restaurants (snack counters and dining areas) is provided by the Airport Authority of Jamaica. However, the equipment (such as stove oven) and labour (to cook, clean and serve) are provided for by the company that wishes to operate there. This indicates that the cost that the potential entrant is expected to face would generally include the cost of renting the work space, the cost of the necessary equipment, and cost of labour. The only cost that can be fully classified as set up cost here is the cost of the equipment. [7] This cost is expected to be relatively low and thus would not constitute a barrier to entry.

A contract that gives a single firm the sole right to operate in the airport fast food market would create a monopoly. A monopolist maximizes profits by raising price and restricting output. The level to which a monopolist can raise prices depends on the elasticity of demand that the monopolist faces.

As a general rule, the more inelastic a demand curve is (that is, the less responsive is

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6. *Restrictions on entry here refer to all legal (such as governmental licence and legal cartels) and natural (such as high setup cost) barriers to entry.*

7. *The entrant would face the full amount of the equipment cost upon entry. The other costs are incurred only if the entrant remains in business.*

demand to a unit change in the price of the product), the higher the price (above the competitive level) the monopolist is able to set. The definition of the airport fast food market indicates that the market is a very closed one (a captive market) and thus the demand for fast food in this market would be highly inelastic.

As a result, it is expected that a monopolist in such a market would raise prices well above competitive levels and severely reduce consumer surplus.

One might argue that the market at the airport is not sufficiently large to accommodate more than one firm. This statement would be alluding to a situation where economies of scale for a single firm can only be exhausted at levels of output equal to the total demand in the market, thus making it inefficient for more than one firm to operate in the market.[8] However, it should be noted that the size of the fixed cost dictates the amount of output necessary to exhaust economies of scale. Generally, the lower the fixed cost of operation, the smaller the quantity of output necessary to achieve economies of scale. The low set up cost cited above indicates that the fast food market at the airport can efficiently accommodate more than one firm and thus there are benefits to be reaped from competition in this market.

The question that logically follow is: exactly how many firms would this market need to drive excess profits to zero? Under certain conditions the answer to this question would be 'more than one'. The condition that would be necessary for this to hold is that the market would have to be contestable. Markets in which there are few firms, but many firms would enter rapidly if profits exceed costs are called contestable markets. Following this argument, two firms in the airport market for fast food could drive profits to zero and maximize consumer welfare if there are little or no barriers to entry and exit. It is unlikely that the Airport Authority will allow any firm that wants to sell fast food within the confines of the airport to simply set up and commence business. It is expected that there will be some amount of legal barriers to entry (and

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8 *This is the case of a natural monopoly.*

exit).[9]

However, if these barriers are sufficiently low, then there will always be the threat of entry by other firms and the fast food market at the airport could be a contestable market where the properties of perfect competition hold.

Conclusion

The product market for edibles at the two international airports of Jamaica is defined to be a market for fast food. The variety of consumers coupled with the time constraint placed on them led to this result.

The geographic market for fast food at the airports is restricted to the premises of the airports. Generally, international airports are situated at some reasonable distance away from towns and residential areas to minimize the damaging effects of noise pollution. This has resulted in the market for fast food at the two international airports being a relatively secluded market.

The market for fast food at the two international airports of Jamaica is a large market with a very low elasticity of demand. This is a market where, if allowed, a monopolist could possibly drive prices well above competitive levels, or prices could be held at a minimum and consumer surplus maximized if competition is allowed to thrive.

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9 *The Airport Authority would not want a free-for-all situation because of the possibility of harassment by higglers and other security risks.*