

Analyzing the natural monopoly of railway china essay sample



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Every Chinese New Year brings mixed feeling to every Chinese family and their traveling members, those who are busy preparing for this momentous festival and those who can't wait to be on their way home for a family reunion. However, they all find out the homecoming has become more and more difficult and unaffordable beyond their expectation.

Jan 4th 2004, as the supervisor, as well as the sole carrier, of railway transportation of China, the Department of China Railway (Railway China) promulgated the temporary scheme for the price rise of train tickets during the Chinese New Year period, with a markup of 20% in average.

However, even in China, a country used to be so economically centralized, it is rare to find business with such high monopolization both in resources and in pricing. Apparently, each time it announced the price adjustment, it has caused more argument than it should. Following the aftermath of the rocketing of the plane ticket price at the year-end of 2003, the price jump of train ticket threw a huge argument among consumers. Here I'm about to analyze the reasoning and economics behind those expensive trips Railway China made for its consumers.

Railway China: natural monopoly and managerial limitation.

As Hal Varian defined, the etymologic meaning for Monopoly is " the exclusive right to sales". Nowadays, however, it's used mostly to describe the exclusive control of a commodity or service by one or more sellers, within a given market. The term Natural Monopoly describes a situation where one firm can produce a given level of output at a lower total cost than can any combination of multiple firms. If such subadditivity exists in a certain

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industry, then we consider natural monopoly exists, with or without economy of scale.

According to this definition, Railway China is a typical natural monopolistically industry, whose long life-spanned fixed assets are hard to transform to other use and thus have great sedimentation. This characteristic makes repetition-constructing of railways within a certain region highly uneconomical and thus catalyzes the regional natural monopoly of railway industry. To be more specific, the sedimentary fixed assets have become high entry barriers for this monopolistic market. However, theoretically and practically speaking, as a naturally monopolistically department, Railway China has the below stated defects.

1. Managerial deficiency.

From a pure economic perspective, every producer, if aiming at maximizing their profit, will have to lower their cost as much as possible, no matter they are in a fully competitive or a highly monopolistic market. In reality, however, Railway China doesn't have to experience severe competition to earn its huge profit; Therefore, it lacks of motivation of lowering its cost as much as possible and, thus, expresses extremely low efficiency.

According to relevant statistics drawn from 1000 residents from Beijing, Wuhan and Xian, three of the most populated city in China, 29. 3% of them think there are great difficulty in purchasing a ticket without paying a too high price; 36. 3% of them maintain that the establishments and facility of Railway China are outdated and its service not fulfilling; while 57. 3% of

them think the overall environment on the train is far from satisfying. Lack of motivation for its managerial innovation is its biggest problem.

2. Unconcerned about R&D.

As one of the Crown companies who enjoy governmental allowance, even if Railway China doesn't practice any systematic reform, or make any effort on lowering its cost, it won't suffer from any noticeable loss. In another word, it lacks of the motivation as well as pressure for exercising lowering its cost in order to create efficiency. Unless the below listed situation emerges, there would be no major change for Railway China's policy:

- 1) Competition from its substitute, such as highway and airway transportation, force Railway China to react with more active and economically healthy strategies;
- 2) What Railway China is doing damages the majority interest of China, shrinking the cake of collective well-being so much that it negatively impacts the Chinese economic growth. Then, outside pressure necessitates its reform or innovation.

However, the characteristic of the population of China (large population), combined with the fact that the highway and airway networks are less developed, makes railway transportation relatively the cheapest and the most feasible method, so the above described situation and the kick for Railway China to practice any reform (managerial and technological) become less likely to happen.

3. Artificially price aggrandizing to confine amount of service rendered.

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In natural monopoly, the technical characteristic of degressive cost eliminates fully competition. For Railway China, its marginal cost is degressive, while its marginal cost is below its average cost. Therefore, when its price equals to its marginal cost, this price will be lower than its average cost, a situation that'll make its profit negative and make it incur a loss.

Shown as the graph, Pricing in Nature Monopoly.

As shown in this graph, the shaded part is the loss. Obviously, Railway China wouldn't produce at the point where price equals its marginal cost. What it applies is the principle of marginal cost equals marginal revenue, and produce Q_2 with the price of P_2 . This action, however, has already become damnous for collective well-being. As shown in the graph, since Q_1 is the social efficient production, with the production of Q_2 , the total value for Railway China to rendered its service to its consumers is bigger than the its marginal cost, thus to increase the amount of service will increase total surplus.

Theoretically speaking, in order to decrease the total loss of collective well-being due to natural

monopoly like this, government should practice price regulation, according to its Marginal cost pricing or Average cost pricing principle and then, if necessary, give Railway China appropriate subsidy.

However, the regulated price is made based on historical data of the cost provided by Railway China itself. Obviously, this price-setting method gives competition-free Railway China great opportunity to add either all its high cost, mainly from its low efficiency, or the artificially exaggerated part of <https://assignbuster.com/analyzing-the-natural-monopoly-of-railway-china-essay-sample/>

cost (in order to obtain monopoly rent) into the price of train ticket.

Consequently, such bidding up lead to the price of train tickets largely exceeding the normal cost. On the one hand, this unavoidably creates production inefficiency and resource misallocation. On the other hand, if government wants to lower price by offering subsidy in order to avoid economical convulsions, as it did all these years, it has to do so by taxation. Obviously, the increase in tax will increase other economic cost and lead to further shrinking of total well-being.

Simply put, even before Chinese New Year price rise, the monopolistic and competition-free position of Railway China has put its consumers at a disadvantageous situation and caused huge deadweight loss.

Railway China: analysis on price rise

The supervisor of an industry, Railway China uses its monopolistic advantage to raise the price of train ticket. Nevertheless, this is not handled according to market rules and couldn't be further from a market behavior. Ideally, if the capacity of carriage is below demand, price rise should give no just cause to criticism. However, a price that only increases never decreases is unendurable. Meanwhile, the legality of price rise during Chinese New Year is fishy. Since this is price rise of public service, it is necessary to hold a hearing of witness to solicit different opinions from consumers and operators in order to argue its necessity and feasibility. Furthermore, if, by any chance, the price rise is manipulated in light of the market rules, then after Chinese New Year's Day, when everybody stays home and there is few to take the

train, Railway China should depreciate its ticket price. Nonetheless, this is never the case.