

On Cafeterias, Monopolies, and Potential Solutions

Introduction

In many organisations - e.g. in firms, the public administration or universities - the cafeteria is a central facility. The reason is simple, as the supply of food and drinks of decent quality in decent quantity for affordable price has a direct effect on the well-being of the cafeteria's customers – mostly the employees or students of the organisation. This is likely to affect the general working atmosphere and, consequently, productivity and satisfaction of employees and students. In economic terms, a good cafeteria creates positive externalities and enhances the organisation's overall productive efficiency.

Given this impact, it is surprising that, according to anecdotal evidence, in many organisations cafeteria performance does not seem to be controlled and managed as rigorously as performance of other parties, e.g. employees or students. This essay applies basic insights from competition theory and organisational economics to point on causalities and to suggest solutions to a problem many of us deal with on a daily basis. For simplicity, I will use the term *university* when referring to an organisation of any kind that employs staff or hosts students and manages food supply of these groups. I will use the term *students* as a synonym for all consumers of a cafeteria.

Further on, I will adopt their perspective and largely neglect alternative goals. One alternative goal is job security or soft treatment of cafeteria staff, which might have been employed by the university for years before privatisation. The university could take care of this by paying the cafeteria contractor targeted lump-sum subsidies to the salaries of legacy staff. Then those persons would not be worse off, the contractor would have extra funds to do the work legacy staff is hard to motivate for, and the university would be better off via improved student performance because of better food. A second alternative goal is profit-maximisation of the university. Because of the positive externalities of cafeteria performance, however, economic theory suggests that, as a whole, the university is better off by *subsidising* cafeterias, not by extracting rents from them.

In economic terms, I will focus on maximisation of consumer surplus. I will assume that cafeterias produce a certain quality level and ask for a certain price level of their output. As usual among economists, I define quality in a rather broad fashion encompassing food taste, diversity, healthiness, size of portions, presentation, staff friendliness, waiting time, and other factors determining consumption utility. An important feature of food quality is that it is not completely contractible; that is, it is practically impossible to specify a contract that contains all details having an influence on perceived quality of food. Therefore, the supplier of food always has some discretion with respect to quality production - despite the fact that consumers might have a clear idea about the level of quality they just consumed.

The benchmark case: monopoly subject to price regulation

As in other industries, several universities used to supply students with food themselves. They owned cafeteria facilities and employed and monitored staff and management of the cafeteria just as they employed and monitored other staff. Because of comparative advantages in academic tasks such as doing research and teaching,

several universities decided to source out non-core activities such as the supply of food and to focus on what they are better in. A usual way of sourcing out services is to issue an invitation to tender, which (ideally) results in a contract between the university and the supplier filing the best offer, i.e. the supplier promising to deliver the most attractive quality-price bundle. As this supplier often is a profit-maximising firm and gets to run a monopoly business, concerns arise how to restrict monopoly power, i.e. how to avoid that the monopolist charges a price level substantially above the cost of production. A popular solution is price regulation. This entails that the university determines prices of some or all products of the cafeteria contractor.

For the sake of clarity, let us consider a specific situation. Assume a university has concluded a food supply contract with a profit-maximising contractor, called A. How would A behave, according to economic theory?

In the product segment where prices are regulated, A can only determine quality. Since the production of quality is costly, he has an incentive to lower quality as much as possible without hurting the contract with the university. Since demand is inelastic – students just have to eat and no close substitutes that could replace buying food from the cafeteria exist – there are very little competitive constraints. Therefore, we can expect A to offer a low quality level.

In the unregulated product segment, A can set price in addition to quality. We know from the theory of vertical product differentiation that a monopolist can increase profits when offering products of several quality levels, assuming that consumers differ in their willingness-to-pay. A knows this too. Consequently, we can expect quality in this segment to be increased above the regulated segment – and to be sold for the high monopoly price.

Summarising, students can either pay the regulated price, which can be high or low depending on the university's regulation, and get rather low quality food or they want better quality but have to pay a high premium for it. This situation is not optimal for them. Contractor A, however, will generate decent profits. It should be mentioned, nevertheless, that the university in principle has the power to skim a share of these profits via charging the contractor high royalty payments or rents. As I focus on consumer surplus here, the distribution of profits between the contractor and the university is not of primary concern though.

Solution 1: competition

What could be done to improve consumer surplus, i.e. the overall utility of students when shopping at the cafeteria? I will offer two theoretical solutions and briefly discuss some factors determining whether they are realistic options or just constructs from the ivory tower. I assume in all cases that price regulation of the university is abolished. This avoids problems of rent shifting between A and the university and, in particular, it avoids that the university administration, which is good in managing a university but has less experience than A in running a cafeteria, creates inefficiencies by setting inappropriate prices.

The first solution is obvious: more competition! Assume A faces a new (equally profit-maximising) competitor, called B, offering food on campus. In accordance with the above mentioned theory of product differentiation, either A will offer high quality for a high price and B will offer low quality for a low price, or vice versa. For product categories without large economies of scale, i.e. where the procurement cost per unit is rather constant for a supplier independent of the quantity bought (e.g. bottled

drinks), we can even expect that both suppliers offer several quality levels. This increases competitive constraints for A and B when setting prices because they always face the threat that students buy from the competitor who sells a similar product for a lower price. Consequently, in each quality segment prices will *decrease* when compared to the monopoly case.

One might argue that having two suppliers increases the risk of collusion, i.e. A and B have an incentive to (tacitly) agree not to undercut each other's prices or to specialise in products not offered by the competitor. This threat is real but solutions exist to cope with it. The easiest one is to further increase the number of competitors as then the coordination effort of suppliers necessary to agree to joint behaviour restricting competition increases. Hence, the risk of detection increases too.

Inviting many suppliers of food even has another advantage besides diminishing the risk of collusion. To make a living these suppliers have to be very creative in offering new and good products for very affordable prices. This set-up can work in reality. At the National University of Singapore, for instance, cafeterias are organised as food courts. Dozens of entrepreneurs rent little food stalls from the university and offer very different types of food, even catering to special interests stemming from the ethnic or religious background of student subsets. Average quality is high and average prices are low.

An instant objection to this idea is that setting up a food court requires major constructional changes at cafeteria facilities as most universities have only one or a few buildings that can host a kitchen and related rooms dedicated to the handling or serving of food. Given this, inviting *some* competition is still better for students than having no competition at all.

Solution 2: monopolistic nonprofit

A second solution to the problem of monopolistic exploitation is offered by organisational economics. Let us assume that we have to live with a monopolistic food supplier. As explained above, the bad performance of consumer surplus in this case is largely related to the profit-maximising motive of A, who charges a comparatively high price for each quality level produced. What about giving the business of running the cafeteria to a nonprofit organisation?

Nonprofits are characterised by a so-called *non-distribution constraint*. This does not rule out that they generate profits but it is illegal to distribute profits to their "owners", i.e. to the persons making final decisions. Roughly speaking, the only legal way for profits to leave a nonprofit is by being donated to a charity. As we have no reason to expect the board members or managers of nonprofits to have an interest in the donation of surplus to charities per se, the only legal and rational usage of profits is to reinvest them in the business of the nonprofit.

In the context of the above assumptions, this could mean either to produce high quality or to sell for low price. Finding the quality-price ratio that maximises the benefit of *all* students – or the *average* student - might not prove trivial as my definition of quality contains many dimensions. Therefore, some students might prefer a low price level while others want large diversity of food or extended opening hours or free refills of their plates. The best way to achieve this seems to have a supervisory board of the nonprofit cafeteria comprising various students, which would make the cafeteria a *consumer-dominated nonprofit*. Ideally, those board members are elected by the entire student body, so minority preferences can be reflected by the

composition of the board, whose members then have to decide about strategic issues such as the various quality dimensions or price levels.

To mention one example: in most German universities, the cafeteria is run by an organisation called “Studentenwerk“, a nonprofit. A Studentenwerk is not structured as a consumer-dominated nonprofit but students pay mandatory contributions to it and have some impact on its decisions.

Nevertheless, being a supervisory board member should not be a full-time job for students. Therefore, a professional manager has to be hired for making day-to-day decisions and managing cafeteria staff. The existence of this manager, in turn, introduces a classical principal-agent problem: whatever the manager claims about his attitude and motivation for the job, he might have other preferences than the board members; for instance, he might not eat in the cafeteria himself every day or the production of quality is personally costly for him as it requires close supervision of cafeteria staff, which he wants to avoid. This divergence of interests between the owners and the manager is likely to distort the quality-price combination that would maximise consumer surplus. Students will notice it but they cannot do a lot against it as, if they replace the manager, a new manager will create a similar problem.

It is also important to stress that the manager must be enabled to closely monitor and incentivise the key cafeteria staff, in particular the chef. Otherwise, key staff members, who might have even other preferences than the manager or the owners, de facto determine quality, which would create a *worker-dominated nonprofit* and can decrease consumer surplus.

Conclusion

I have demonstrated that the existence of a non-distribution constraint alleviates the incentives of cafeteria owners – the persons who are in charge of long-term, strategic decisions - to exploit consumers. This is true, in particular, if the decisive owners share many characteristics with their consumers, which is most easily achieved if they are students, too. The starting point of this argument is the supply side of the food market.

The starting point of day-to-day competition – or the credible threat of it – is the demand side: Because of the very reason that a supplier wants to maximise profits, he will specify the quality-price bundle offered in line with students’ needs. Otherwise, he risks losing them to competitors. Given that perfect competition - i.e. a market structure where no supplier can charge prices above the cost of production - is very hard to achieve in an industry potentially catering to many diverse tastes, the combination of competition and consumer-dominated nonprofits seems most appropriate to maximise consumer surplus in the cafeteria market. Then it would be rather easy to compare and evaluate the manager’s performance and to design an appropriate employment contract that aligns his goals with the owners’.

How could this be achieved in practice? Here is only *one* solution concept out of several possible: First, the university should found a nonprofit, say a foundation, and endow it with a stock of assets via a long-term lease contract of the cafeteria facilities (including rather low royalty payments from the foundation to the university that can be financed out of ongoing revenues). Second, the university should set up the statutes of the foundations such that its central organisational unit is a board whose members are elected by the total student/consumer population, for instance for a term of one year. Then the university should keep its hands off the foundation. The supervisory

board members should employ a manager to run the cafeteria facilities based on an employment contract allowing the board to dismiss the manager if he does not comply with the board's quality-price goals. Finally, the university should invite competition by allowing entrepreneurs - nonprofit or for-profit - to open a food business on campus.

If these changes are not completely possible in practice, any step in the direction of solutions 1 or 2 would be a change for good compared to the benchmark case.

Related CentER Discussion Papers:

- Herbst, P. and J. Prüfer, "Firms, Nonprofits, and Cooperatives: A Theory of Organizational Choice", CentER Discussion Paper, No. 2007-07; TILEC Discussion Paper, No. 2007-003.
- Prüfer, J., "Competition and Mergers among Nonprofits", CentER Discussion Paper, No. 2007-82; TILEC Discussion Paper, No. 2007-022.