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ı **Macdonald** is Professor of Social Anthropology at the University of Manchester. ɔks include *Theorizing Museums* (edited with Gordon Fyfe, Blackwell 1996), *'ining Culture* (1997), *The Politics of Display* (ed., 1998), *Behind the Scenes at ɜnce Museum* (2002), and *Exhibition Experiments* (edited with Paul Basu, ell 2007).

age: The Great Court at the British Museum, London. Photo © by Fausto Giaccone / Anzenberger

ISBN 978-1-4443-3405-0

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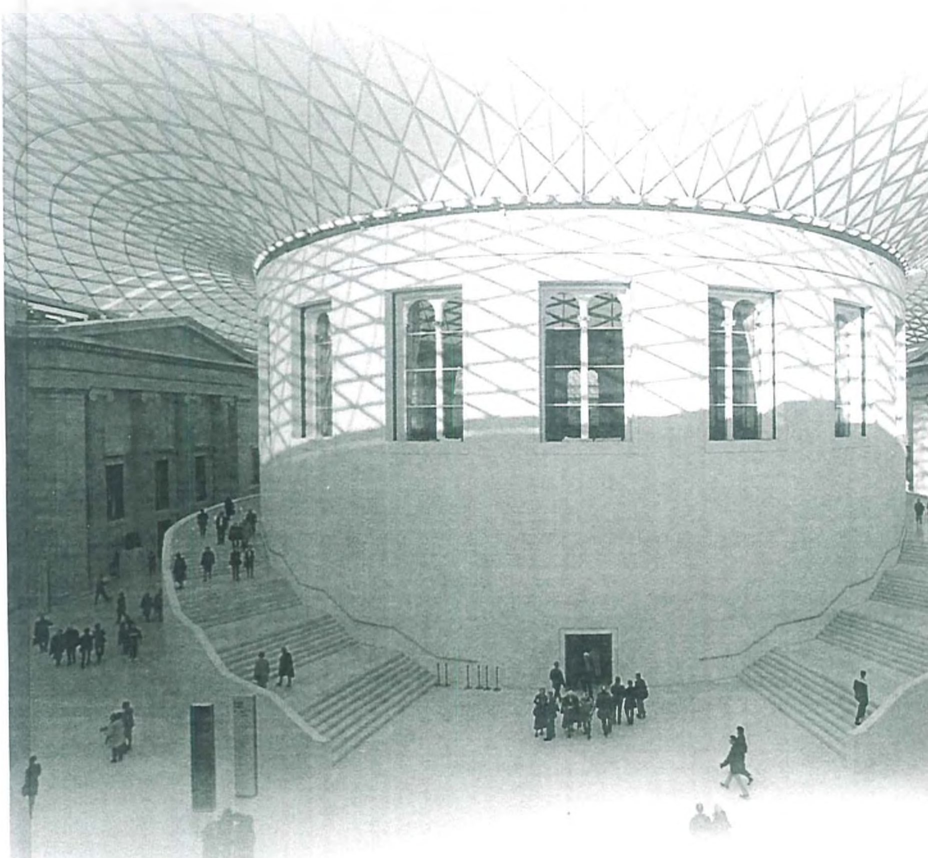

Edited by

Sharon Macdonald

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A Companion to Museum Studies

CHAPTER **TWENTY-FOUR**

Cultural Economics

Bruno S. Frey and Stephan Meier

In: Sharon Macdonald (ed.)
A Companion to Museum Studies
Chichester, UK: Wiley-Blackwell
Paperback edition, 2011: 398–414

The museum world has changed substantially in the past decade and gained more relevance in economic terms. The number of visitors has increased in the United States and in Europe, as museum visits have become one of the most important leisure activities and tourist attractions. Many special exhibitions designed as "blockbusters" attract large crowds comparable to other major events in the leisure industry. Even Las Vegas, the former "sin city," realized that "more Americans visit art exhibitions than sports events" (*The Economist* 2001). In response, the casinos started their own art galleries to attract more visitors. In aggregate, increasing numbers of visitors around the world spend considerably more money on the arts than they ever did before.

Most museums, however, are struggling for survival and chronically lack financial resources. The decrease of public funding in the past decade, and the increasing competition between art organizations for visitors, public grants, and donations, may explain some of the trends in the museum world and the behavior of museum directorates. The recent efforts of museums to increase their revenue may be seen, for example, as reactions to the "harsher" competition for funding. But museums seem to be extremely rich taking into account their major assets: the exhibits (for art museums the art works). The incentives for the museum directorate, however, to sell some exhibits, or even to include them in financial accounts, are low. This chapter focuses on the behavioral patterns of museum directorates and the particular economic features of museums, with particular reference to the importance of the institutional setting.

Cultural economics applies economic thinking to the arts. It is not restricted to financial aspects, such as subsidies and costs, but uses an economic model of human behavior to understand social aspects of the arts. The Economics of the Arts has established itself as a major discipline within the economic approach to the social sciences. This approach is based on a systematic study of the interaction between the behavior of individuals and institutions (Becker 1976; Frey 1999). The latter may consist of particular decision-making systems (for example, the market, democracy, hierarchy, or bargaining), norms, traditions, and rules, as well as organizations (such as the state, parties, or interest groups). A specific model of the behavior of human beings – the "rational choice model" – is assumed: preferences (i.e. what people desire) and constraints (imposed by social institutions and by income, prices, and time available) are carefully separated. Changes in behavior are attributed to changes in constraints because such changes can be empirically identified. At least in the basic model, preferences are taken as given. It is difficult, if not impossible, to empirically identify changes independent of the behavior to be explained. Therefore, in order to avoid empty statements of the kind "people undertake a particular action because they like to do it," behavior to be explained is attributed to constraints, in particular to the working of institutions. The economics of museums thus understood clearly distinguishes itself from other approaches to studying museums, in particular the sociology of museums or art history (for example, DiMaggio 1986; Foster and Blau 1989).

The economics of museums has been the topic of several publications (for example, Feldstein 1991; Schuster 1998; Meier and Frey 2003). It has been treated in general surveys (Throsby 1994; Blaug 2001) and monographs and textbooks (see Frey and Pommerehne 1989; Towse 1997; Benhamou 2000; Throsby 2001; Frey 2003). Below, we first briefly discuss aspects of supply and demand; and then analyze how different institutional settings can affect the incentives and behavior of museum management. We include here discussion of some important developments, such as charging and sponsorship, blockbuster traveling exhibitions, and superstar museums, often seen as the way forward in the museum world.

Supply

Cost structure

Museums face a cost structure that differs from other firms in the service industry and can explain some of their particularities. Museums have (a) high fixed costs and low variable costs; (b) the marginal cost of an additional visitor is close to zero; (c) the costs of museums have a dynamic component which is disadvantageous for the enterprise; and (d) opportunity costs constitute a substantial part of the costs of a museum.

(a) *High fixed costs* Museums in general operate with considerable high fixed costs: buildings, collection, staff, insurance, technical outfit, and so on, cannot be varied in the short run. Independently of output (for example, numbers of visitors or numbers of exhibitions), the costs to run museums remain the same. Fixed costs include the costs of acquisition, which for paintings especially increased dramatically when the art market exploded in the 1980s and insurance fees went up accordingly.

(b) *Marginal costs are close to zero* To determine how much should be produced, marginal costs of a museum constitute crucial economic information. They indicate how costs vary with output. The cost of an additional visitor is most of the time close to zero. If a museum sets up an exhibition, the basic operating costs are for opening the museum on that particular day. When more people enter the museum, average costs decrease. However, there are some situations where marginal costs are not zero. At so-called "blockbuster" exhibitions, for example, an additional visitor imposes "congestion costs" on other visitors (see Maddison and Foster 2003 for evidence for the British Museum).

(c) *Dynamic cost* Like most cultural organizations, museums experience a productivity lag producing constant financial problems. They thus suffer from a "cost disease" as wages increase with general increases of productivity in the economy. In the cultural sector, wages develop as in the normal economy but productivity increases lag behind those of the other sectors. The classic example is the Mozart symphony which always needs the same number of staff. There is little scope for increasing productivity, and costs therefore increase constantly. Although there are no empirical studies of "cost disease" for museums, there are areas where it could possibly be redressed, such as: items being shown on the Internet, surveillance undertaken by cameras; the use of more volunteers, activities being outsourced; or the introduction of "leaner" forms of management.

(d) *High opportunity costs* Museums typically own a huge endowment of high value. Art works and historic artifacts bring not only storage and conservation costs but also opportunity costs. The real costs of this capital stock would become apparent if museums borrowed money to buy pieces. The annual interest, which the museum would have to pay, would constitute the real capital costs. The opportunity cost of a painting or artifact is its monetary value in an alternative investment. The annual rate of return can be seen as the cost of the item. Other opportunity costs might include alternative uses of the museum building. For most museums, the value of their holdings is by far their greatest asset. At least some museums have realized that a closed museum costs more than just the operating expenses of the building. There are alternative uses for the rooms of the museum, such as renting for business lunches or other social events. Most museums do not put a value for their collection in their accounts. Neglecting opportunity costs can partly be explained by a rational reaction of the museum's directorate to action of the political sector (this will be discussed in more detail in the section on public subsidies below).

Organizational form of museums

Museums can be private for-profit organizations, private non-profit organizations, or public organizations run in a non-profitable way (or some combination of these). In Europe and the United States, the non-profit organizational form is predominant. Different hypotheses can be put forward to explain the dominance of non-profit firms in the museums world and the arts in general (see, for example, Hansmann 1981; DiMaggio 1986). According to Weisbrod (1977), non-profit organizations were founded due to an unsatisfied demand for public goods.

If making variable admission charges is not possible, individuals can be asked to pay more voluntarily, for example, by becoming donors. The non-profit form dominates the for-profit enterprise in getting donations because consumers lack exact information about the quality of the good and service provided. There is therefore no ordinary possibility to make a complete contract to protect donors against exploitation. Donors then prefer non-profit firms where the possibility that the managers of the firm exploit donors and consumer is limited. However, as we discuss in the next section, the non-profit organization has problems of its own concerning the supervision of the managers of such firms. Although there is no possibility to distribute the profits due to the non-profit form, there is still much leeway for managers either to receive huge fringe benefits or to behave not in the interest of the museum.

Demand

The demand for museums can be divided into two parts: (a) *private demand* exerted by the visitors; and (b) *social demand* from persons and organizations benefiting from a museum but not paying for it directly.

Private demand

The number of visits can be analyzed by a traditional *demand function* capturing the major factors determining the number of visits. Its features can be empirically measured by using data on museum visits and on the factors included in the demand function, normally by a multiple regression analysis. The goal is to answer the question of how demand varies when, for example, prices change – all other determinants of demand kept equal.

There are three major determinants relating to *prices* or *costs*:

1 *Entrance price* Together with the number of visits, this determines the respective revenue gained. "Price elasticity" is the term used to indicate by how much visitor attendance decreases when the entry price is raised. Econometric estimates for a large number of different museums in different countries suggest that the demand for museum services is price inelastic (Luksetich and Partridge 1997), i.e. an increase of the entrance price by one percentage would decrease the attendance by less than one percentage. Overall, the low price elasticities suggest that museums can generate significant increases in revenues through admission fee increases.

2 *Opportunity cost of time* This indicates what alternatives the visitors have to forgo when they visit a museum. For people with high, full-income potential and variable time use, mostly the self-employed, the opportunity cost of time is higher than for people of low income and fixed work time. The latter are therefore expected to visit museums more often, all other things being equal. The opportunity cost of a museum visit not only depends on the time actually spent in the museum, but also on how much time is required to get to the museum, i.e. the location, the parking facilities, and so on. For tourists, the opportunity cost of time tends to be lower than for local inhabitants because they often visit a city with the purpose of visiting the respective museums. To measure the effect of opportunity costs properly, one has to separate the effect of opportunity costs from the income effect. The demand for museums increases with income. But with higher income normally also opportunity costs increase. If the effects are

separated, one finds a positive income and a negative opportunity costs effect on demand.

3 *Price of alternative activities* These are, most importantly, substitutive leisure activities, such as other cultural events (theater, film), sports, restaurant visits, time spent with friends at home, and so on. Museums may also constitute a substitute for other museums. The higher the price of such alternatives, the higher is museum attendance, all other things being equal. But complementary costs, such as travel, accommodation, and meals, also systematically influence the number of museum visits. The higher their price, the lower is the rate of museum visits.

Income is another determinant of the demand for museum visits. Econometric estimates reveal an income elastic demand, i.e. rising real disposable income favors museums. As already mentioned, the income effect has to be separated from the effect of higher opportunity costs due to higher potential income. An important factor is also the high correlation of income and *education*. Better-educated people have the human capital necessary to more fully enjoy museums than people with lower education. This factor plays a larger role for museums of (modern) art and history, but plays a lesser role for museums of science and technology, especially for museums of transport (railways, cars, or space travel).

There are many *other determinants* that must be included in a well-specified museum demand function. One is, of course, the quality of the collection or special exhibition mounted. Luksetich and Partridge (1997) estimate that the value of the collection increases attendance figures. Other factors which influence demand are the attractiveness of the building, the level of amenities provided, such as the general atmosphere, the extent of congestion in front of the exhibits, the cafés and restaurants, and the museum shop. Important also are marketing efforts, especially regular and vivid advertising.

A final determinant of the rate of museum visits is individual preferences. These are difficult to measure independently. Econometric studies of museum demand often indirectly capture them by introducing past visits as a determinant. In all empirical estimates this factor proves to be highly significant: people who used to visit a museum in the past are likely to do so also in the present and future. Their demand even increases with past consumption, making museum visits an "addictive" good.

Social Demand

Museums produce effects for people not actually visiting the museum. These benefits cannot be captured by the museums in terms of revenue.

External effects

Museums create *social values* for which they are not compensated in monetary terms and, therefore, may have little incentive to develop. Five types of such external effects may be conveniently distinguished:

1 *Option value* People value the possibility of enjoying the objects exhibited in a museum sometime in the future.
2 *Existence value* People benefit from knowing that a museum exists but do not actually visit it now or in the future.
3 *Bequest value* People derive satisfaction from the fact that their descendants and other members of the community will in the future be able to enjoy a museum if they choose to.
4 *Prestige value* People derive utility from knowing that a museum is cherished by persons living outside their community. They themselves need not actually like and visit the museum.
5 *Education value* People are aware that a museum contributes to their own or to other people's sense of culture and therefore value it.

This list of "*non-user benefits*" indicates that museums may indeed provide many social values for which they are not compensated by revenue. Museums may also produce negative external effects whose costs are carried by other persons. An example would be the congestion and noise carried by museum visitors to a community.

The non-user benefits and costs have been empirically measured using three different techniques:

1 *Representative surveys* Best suited are *contingent valuation studies* which were first developed to capture environmental values but have served well to capture cultural values (for an application to museums, see Martin 1994).
2 *Analysis of revealed behavior by individuals* One well-developed procedure is to estimate by how much the property values in a city are raised by the existence of a museum as people are willing to pay more for a house that is located in an area with a rich cultural life (Clark and Kahn 1988).
3 *Analysis of the outcome of popular referendums* on museum expenditure. In Switzerland, with its many referendums, this approach has been successfully used to identify option, existence, and bequest values of buying two paintings by Picasso for a museum (Frey and Pommerehne 1989: ch. 10).

Museums produce *monetary values* for other economic actors. They create additional jobs and commercial revenue, particularly in the tourist and restaurant businesses. These expenditures create further expenditures (for example, the restaurant owners spend more on food) and a multiplier effect results. *Impact studies* (see, for example, Towse 1997), measuring the additional market effects created, are popular among politicians and administrators because they provide them with reasons to spend money on museums. However, these studies have to be interpreted with much care. Impact studies tend to focus on the wrong issue. The *raison d'être* of museums is to produce the unique service of providing a certain type of cultural experience to its visitors, as well as to provide the non-user benefits discussed above. The museum's task is *not* to stimulate the economy; there are generally much better means, such as opening a theme park, to do so. If one follows the line of argument of impact studies, one would have to give preference to whatever expenditure leads to more economic stimulation.

A reasonable policy for a museum is to emphasize its *cultural value*, and to determine the non-user values created by serious empirical studies sketched above. A museum must make an effort to produce those values no other institution can; namely, to provide the present and future generations with specific cultural experiences. Museums should not try to imitate other institutions such as theme parks. Museum people should not forget where their *comparative advantage* lies and should refrain from competing on other grounds.

The Institutional Approach to Museum Behavior

The services produced in a museum are not purely externally given but have to be decided by its decision-makers. The main actors in a museum, determining the museum services, are the directorate and their professional staff. For the sake of simplicity, this discussion is restricted to the directorate. The analysis concentrates on the incentive these actors have to behave in a certain manner. The directorate is assumed to be concerned primarily with its own well-being. The directors' utility depends on their own income and the prestige they get within their reference group, which consists mainly of arts lovers and the international museum community. A second source of amenity is derived from the agreeable working conditions and job security. But the museum directorate is not free to do whatever it wants to do because it faces certain constraints on its actions. Differences in these institutionally determined restrictions explain the museum management's behavior.

Three institutional arrangements may affect managers' behavior: (a) the ownership structure (financing), which sets the incentive for museums managers to help ensure that they accomplish their goals efficiently; (b) competition (often lacking in the museum world) that would enforce efficiency; and (c) performance measurement and transparency, which make it easier to evaluate the museum directorate. In the following sections, we will discuss in particular the first two institutional arrangements. Questions of performance measurements and transparency will, however, evolve in the discussion of the restrictions imposed by the institutional setting.

The finances available are the most important constraint on the museum's directorate. Other constraints, such as limited space or legal and administrative burdens imposed by the bureaucracy or labor unions, can also weigh heavily. The sources of income differ considerably from one museum to another. From a politico-economic point of view, the institutional set-up and the nature of funding of the museum are expected to have a strong influence on the behavior of the directorate. The incentives for the museum's directorate to behave in a certain way vary significantly depending on this institutional framework (see Frey and Pommerehne 1989). Most of the literature focuses on the "ideal types" (in Max Weber's sense) of a "purely public" and "purely private" museum (an exception is Schuster 1998).

In the following sections, we discuss museum behavior from an institutional point of view focusing on public versus private museums before analyzing how these institutional differences influence the management of the collection, pricing decisions, and the provision of visitor amenities. We then consider how competition can change the behavior of public museums dramatically. Competition between museums can force efficiency and improve the services provided by the museum.

Public vs Private Museums

Directors of purely *public museums* rely exclusively on public grants. The government allocates them funds to cover the expenses considered necessary for fulfilling their tasks. While they are expected to keep within the budget, if a deficit occurs, it will be covered by the public purse. This institutional setting provides little incentive to generate additional income and to keep costs at a minimum. The directorate will not allocate energy and resources generating additional income because any additional money goes back into the national treasury. If they were to make a surplus, the public grants would be decreased, which acts as an implicit tax of 100 percent on profits. The museum's management tends to move away from a commercial to a non-commercial framework in order to reduce the pressure of having to find their own income sources to cover additional costs. When the directorate is no longer forced to cover costs by its own efforts, it can legitimize its activities by referring to intrinsic "artistic," "scientific," or "historical" values. This application of non-commercial standards helps the museum directors to achieve their goal of prestige, top performance, and pleasant working conditions.

Directors of a purely *private museum*, on the other hand, have a strong incentive to increase the museum's income because their survival depends on sources of money such as entrance fees, revenue from the restaurant and the shop, and additional money from sponsors and donors. If private not-for-profit museums generate a surplus, they are able to use it for future undertakings.

Most museums, however, are somewhere between the polar cases of purely public and purely private museums. In the past few years, public museums have increasingly moved in the direction of private museums as state support has decreased, especially in Europe (NEA 2000). Directors have been given more discretion and pressure to generate income.

How Institutions Affect Behavior in Four Important Areas

The management of the collection

In most museums of the world, a considerable part of the holdings is not exhibited and not accessible to the general public. What constitutes the major part of the wealth of such an institution thus does not appear on the balance sheet.

The failure to consider the opportunity costs of holding a collection throws up the question why such behavior takes place. Museum managers are well aware that their holdings have a great value, and they cannot be assumed to be irrational. But why do rational, well-informed people systematically not account for these large sums of money? Three reasons can be proposed which may explain the behavior of the museum management:

1 The government imposes a *legal constraint* on selling. Many or even most public museums in continental Europe are prohibited from de-accession, though it is often allowed in the United States and to a lesser extent also in Britain. Nevertheless, as O'Hagan (1998: 171) argues, "The real opposition arises from the museum personnel and not from the law." Even in the United States, where it is legal to sell part of the collection, curators argue that it is not ethically right to do so, unless this contributes to improving the collection.
2 There may exist a voluntary contract between the museum directorate and donors who generally want to keep intact the collection that they have given. The directorate is faced with a trade-off between receiving additional paintings and having to accept additional restrictions (Weil 1987).
3 Public museums lack an *incentive* to sell their holdings because, first, when a painting or artifact is sold, the revenue gained is not added to the museum's disposable income, but, according to the rules of the public administration in most countries, goes into the general public treasury or the budget allocated to the museum is most likely to be correspondingly reduced. Secondly, selling collected items means that the existing stock is at least partly monetized, which eases outside interference by politicians and parliamentarians in the museum's business (O'Hare and Feld 1975). The museum directorate's "performance" becomes easier to evaluate and the buying and selling prices of particular items can be compared. As long as the criteria for evaluation are exclusively of an art historic or subject-specialist kind, the museum community is to a substantial extent able to define its performance itself. This is a useful and successful survival strategy that museum administrations do not voluntarily give up.

By contrast, private museums may be active in buying and selling, as is the case with private American art museums (Feldstein 1991: 21).

Setting entry fees

There are large differences between museums in the way in which they set the entrance fees. There is an extensive discussion about whether to charge or not to charge (see O'Hagan 1995). This discussion probably goes back to Hans Sloane, whose donation led to the founding of the British Museum conditional upon an entrance fee not being charged. Most national museums in Britain today do not impose an entry fee. In the United States, there are also some museums, at least the national ones, which do not levy an explicit entrance price.

Two main arguments are put forward in favor of free admission, but the arguments have shortcomings. First, because there are some positive side-effects connected with a museum, as discussed above, the museum should be paid for by taxation. But the benefits are not distributed equally, and an accurate taxation according to these benefits is almost impossible. Those who visit a museum probably benefit the most from the museum. Therefore, an entrance price should be levied on top of the contribution from general taxation. There does not seem to be any evidence that this measure hits low-income groups disproportionately (O'Hagan 1998: 178). In the system without charges, it is not only the majority who pays but also the poor income group who benefits the least. Secondly, the low or zero marginal cost of a visitor leads to the view that to charge a zero price is efficient, i.e. if the museum is open, it costs nothing to allow a visitor to enter who gets a low but positive utility from the visit. As mentioned above, the assumption of zero marginal costs can be criticized on various grounds. Some of the problems can be avoided by adopting a pricing option which deviates from the two extremes.

There is a variety of pricing options besides free entrance: donation boxes with and without price suggestions, seasonal tickets with zero marginal pricing, a museum pass, a free day policy, or a more sophisticated price discrimination. The price discrimination, which is supported by economists, can be undertaken in time of high demand and/or in respect of the type of visitor. A lot of museums, even those who do not charge for their permanent collection, have higher entrance fees for special exhibitions. Additionally, the museum could charge more at weekends. Tourists could be charged more than residents, which makes sense from an economic and political point of view. Prices could also be differentiated between visitors who want to spend little time on the visit to a museum and those who want to spend more time. In periods of high demand, when the art museum's capacity is fully used, two entry prices could be set, a high and a low one. The high-priced entry will generate a shorter waiting queue and will be used by the first category of visitors. The low-priced entry option will be used by the second category of visitors, among them students and other young people who do not want to spend much money but have plenty of time available. Price differentiation is advantageous for both categories of visitors (one gets in more quickly, the other pays less) as well as for the museum administration which can therewith raise its revenue.

The question of how pricing influences the finances of the museum not only depends on the price elasticity of demand. Charging can also influence the flow of public subsidies and donations. Moreover, pricing decisions influence the income generated by ancillary income, such as the revenue gained from the shop and restaurant which depends on the number of visitors. The complementarities between admission fees and sales in museum stores and restaurants affect optimal pricing strategy. The empirical result in Steiner (1997) suggests that an additional free day does not maximize revenue because the decreased admission revenue due to the free day is not compensated for by more sales in the shop and restaurant.

Special exhibitions

Special exhibitions are increasingly important for museums, and almost all museums engage in it to some extent. Special exhibitions, especially of art, are often composed of exhibits from all over the world and are often designed to be traveling exhibitions.

The boom in special exhibitions contrasts with the financial problems most museums are facing (Frey 2003). Even in some of the world's leading museums, some wings are temporarily closed, and opening hours are reduced in order to save money. Curators are concerned that they have less and less money available for the restoration and conservation of their collection. Why should special exhibitions be different?

On the *demand side*, special exhibitions have some special features worth noting:

1 *High income effect* Consumers tend to spend an increasing share of their rising income on visiting specially arranged art exhibitions.
2 *Attracting new visitor groups* Special cultural events, such as special exhibitions, are widely advertised and are therefore able to attract new groups not normally visiting museums. In order to overcome people's resistance to enter museums, they are "dressing-up."
3 *Newsworthiness* Special exhibitions are *news*, and attract the attention of television, radio, and the print media, which is otherwise impossible to get to the same degree, and especially free of charge. It is easy to get media people to report on a special exhibition, while the permanent collection is hardly newsworthy.
4 *Low cost to visitors* Special exhibitions are closely linked with tourism. A considerable number of visitors come from out of town, from other regions, and often from foreign countries. The combination of a cultural event with tourism lowers the individual's cost of attending in various ways. In the case of increasingly popular package tours, consumers only have to take the initial decision and all the rest is taken care of by the travel agent. In the case of culture, where it is often burdensome to acquire the tickets from outside, the reduction of decision and transaction costs are substantial. The strong attraction of special exhibitions to tourists also affects the price elasticity of demand. Tourists relate the entry fee to their expenditures for the overall trip. A given price increase is then in comparison perceived to be relatively small and does not have much impact on demand (see Blattberg and Broderick 1991).
5 *High demand by business* Special exhibitions offer many opportunities to make money (see, for example, Feldstein 1991). They not only extend to the tourist industry but also to catering firms and publishers.

There are also various special determinants on the *supply side* of special exhibitions:

1 *Low production cost* The absolute cost of many special exhibitions is certainly high, but it is low *compared* to the sum that would be required if all the resource inputs used were attributed to them. Important resources are taken from the permanent venues and only additional costs are covered by the special artistic events. Museum employees may be used to organize and run special exhibitions, but the corresponding cost is not attributed to the special events. Some cost factors, though substantial, normally only appear in disguised form. The museum rooms, where the special exhibitions take place, do not enter the costs accounted for as the opportunities forgone are not part of the book-keeping.
2 *Evading government and trade union regulations* Special events allow cultural institutions more freedom to act outside restrictions imposed by the government and trade unions. Special exhibitions provide a good opportunity for directors to appropriate at least part of the extra revenue generated and therefore keep some discretion over these funds. Moreover, special exhibitions make it possible to

evade at least some employment restrictions, especially as most of those employed on them are only part-time and temporary, are not union members, and are therefore not legally bound by trade union regulations.

3 *More sponsorship* Politicians and public officials have an interest in special exhibitions. They are not only seen to be responding to the respective demands of the arts world and the local business community, but they also have an excellent opportunity to appear in the media as "patrons of the arts" (at taxpayers' expense). Business is also more prepared to sponsor special exhibitions than regular activities, where legal provisions often hinder sponsorship. The most important reason is certainly the higher media attention for these events and their particular contribution, but also that an individual firm has more control over the funds contributed.

As special exhibitions become the rule rather than the exception, there is pressure to have them carry the whole cost, and to subject them to the same government and trade union regulations as other museum activities. Even if the rapid rise in special exhibitions cannot be expected to persist, they have had a strong and lasting impact on the museum world. Although special exhibitions are financially attractive in the sense that they generate considerable additional revenue via entrance fees, there is still no study calculating the rate of return of special exhibitions. It is known in general that special exhibitions not only require much in the way of additional human and material resources, but are also costly in terms of transport and insurance. Special exhibitions may not be the financial salvage of museums, if costs are attributed correctly, but museum directors may like such an event due to the attention received from the art world and the media recognition gained (Meier and Frey 2003: 9–10).

Commercial activities

Beside the core activities of the museum which are directly related to the works exhibited or stored, and for which some of them charge an entrance fee, most museums also engage in ancillary activities. The revenue from these activities can make a large contribution to operational expenses (see, for instance, Anheier and Toepler 1998; Heilbrun and Gray 2001: 211). Museums operate museum shops, restaurants and cafés, sell catalogues, make money with parking lots, organize cultural journeys, and so on. The first museum shop was established by the Metropolitan Museum of Art in New York in 1908 (Weisbrod 1988: 109), and remained for a long time an exception rather than the rule. Today, a lot of American museums not only operate their own shops, but even run off-site stores in the city in which the museum is located or even in a totally different city, as does the Metropolitan Museum of Art

Is the museum world increasingly commercialized? The empirical evidence is ambiguous: Heilbrun and Gray state, for the United States, that "Earned income accounted for only 16.1 percent of the total in 1993 but rose to 25.9 percent in 1997" (2001: 210). In contrast, Anheier and Toepler (1998: 240) conclude from their more in-depth study of the USA that "art museums have not become significantly more commercial in recent years." Much more research is needed to gain firmer knowledge.

Competition between Museums

Beside the ownership structure (public vs private), competition is the most crucial setting for increasing the efficiency of museums. Does competition really lead to a better service for the consumers and more efficient supply or will the competitive situation just lead to more benefits for the politicians in charge? In the following, we focus on three dimensions in which competition can take place: (a) competition for visitors; (b) competition for public subsidies; and (c) competition for donations.

Competition for visitors and prestige

In recent years, the number of museums has increased worldwide. For example, in the case of art museums in Switzerland, more than 45 percent were founded in the past fifteen years. In the United States, the number of museums increased by more than 13 percent in only five years (1987–92; NEA 1998: 3). Not only did the number of museums increase but more museums became accessible to people due to reduced travel costs, so shifting the frame of reference for visitors as well as for museum administrators.

While museum directorates have always been aware of tacit competition with other institutions, there is now more open competition over a much broader area for visitors, commercial activities, and sponsors. In the extreme case, this may lead to a "superstar" effect on museums (see Frey 2003). Some art museums, in particular, have reached the status of *superstars* and have become household names for hundreds of millions of people. Such museums are mostly associated with major tourist cities which, in turn, owe part of their prominence to the superstar museums (see also chapters 23 and 31).

Superstar museums are able to exploit the economies of scale in reaching out to a large number of people. They are not only featured in newspapers, on radio and TV, but can raise enough money to produce their own videos and virtual museums. These costs are essentially independent of the number of consumers and therefore favor the major museums because the set-up costs are normally too large for smaller institutions. While the latter will certainly catch up (a homepage will soon be a matter of course for all museums), major museums will have the funds to improve their scope and quality so as to keep their lead. Superstar museums have also started to establish museum networks by trading on their brand name.

Superstar museums find themselves in a new competitive situation. Their reference point shifts from other museums in the city or region to *other* superstar museums. This competition between the superstars extends over a broad area, including commercial activities and sponsors. They must also make great efforts to maintain their status. Frantic activities are therefore often undertaken: special exhibitions are organized in the hope that they turn out to be blockbusters, visitors' amenities are improved (for example, a larger variety and fancier restaurants), and new buildings with stunning architectural designs are added (as in the case of New York's Museum of Modern Art). The superstar status tends to transform museums into providers of *total experience*, a new role that stands in stark contrast to the traditional notion of museums as preservers of the past.

However, this competition is only effective if the directorate has the incentive to change its behavior in response to the tougher competition. In recent years, such institutional factors have changed, which may explain the changing behavior of public museums. In particular, the degree of state support and the extent of bureaucratic control have decreased for museums. This, of course, changes the incentives for the museum's directorate dramatically: suddenly, the administrators are interested in earning more money by attracting more visitors and raising additional money through sponsorship or shops.

Competition for public subsidies

Museums and all other cultural organizations compete for public subsidies. Such competition can lead to biased incentives to supply museum services. The incentive to provide services for few cultural "freaks" increases as the cultural bureaucracy is presumably most staffed with lovers of the arts. The incentive to increase the revenues by providing amenities to visitors is low. This application of non-commercial standards helps the museum directors to achieve their goal of receiving enough public grants. Maddison (2002: 1) shows that "[s]tatistically analyzing data drawn from a panel of UK museums, evidence is found that increases in non-grant incomes do indeed result in a statistically significant reduction in future government subsidies."

In the competition for public money, political connections are crucially important. Public grants will therefore be distributed to traditional organizations which already have a close relationship to the cultural bureaucracy. Innovative and new organizations have fewer opportunities to receive public grants.

There are, however, other possibilities to distribute public grants to the arts and museums in particular. One alternative is a *cultural voucher system* in which every citizen receives cultural vouchers which they can use in cultural organizations of choice. Competition for these cultural vouchers, for which the cultural organization receives public money, will lead to a change in the supply of museum services. The museum directorate has to supply services satisfying the wishes of those who demand and finance it.

Direct democracy constitutes a second alternative to distribute public money. In such a system, people may directly decide on the amount given to the arts and on who will receive the money. As discussed in Frey (2003: ch. 8), direct democratic rules (in Switzerland) do not lead to decreased public assistance for the arts but, in the case of Switzerland, to the contrary. The opportunity for citizens to directly decide on arts subsidies provides an incentive for museums managers to supply those cultural services, which will be supported by the citizens. Moreover, pre-referenda discussion induced, increases public interest in the arts. A third alternative to distribute public grants to museums is to *subsidize donations* to museums, as via tax reductions which are typical in the United States.

Competition for donations

Tax rebates to private individuals and firms in return for contributions and gifts to non-profit institutions actively expand the range of possibilities open to suppliers of art and culture (Schuster 1999). In the United States, individuals may deduct up to 50 percent of gross income, firms up to 10 percent of taxable earnings. When the marginal tax rate falls, the financial advantage of donating decreases. The resulting support for the arts is hard to measure, but is known to be significant. Museums therefore often spend considerable sums on fund-raising. Steinberg (1986) estimated that for the arts a marginal dollar spent on fund-raising would bring in an additional $2.07.

The competition for donations and the resulting dependence on this financial source influences the behavior of the museum directorate in two further important dimensions. First, with this type of support through "uncollected" taxes, also called "tax expenditure," the recipient has little incentive to raise profits and therefore to pursue a differentiated price policy. To receive donations, museums have to be seen as needy. But that does not necessarily mean that "potential" surpluses are made to disappear in the form of costs being pushed up, for the recipient has to show (potential) givers that the gift will be used "efficiently," that is, that "outstanding" museum purchases will be made and "exceptional" exhibitions put on. Obviously, this type of art support may be associated with conditions that lead to restrictions on the decision-making power of the directors of cultural institutions.

Secondly, donors can exercise some measure of control over the activities of museums, as discussed in Glaeser (2003). They can either interfere in the programming or they can contract legally binding limitations on the collections they donate. The limitations on the collections may greatly affect museum management. Most donors want to highlight their own visions. While curators normally win the battle over display, donors strongly restrict – and mostly prevent – the selling of donated items. Museums dependent on donations are therefore rarely able to manage their collections on the market, which imposes considerable opportunity costs on museums. As the donations are partly financed by the public via their tax expenditures, the restrictions imposed by the donors on the museums are a relevant concern for the public.

Conclusions

This chapter has analyzed the behavior of museums from an economic point of view in which the primary decision-makers in a museum are assumed to behave at least partially in a self-interested way. The institutional setting (for example, whether a museum is privately or publicly funded) constitutes the most important framework that shapes behavioral incentives for the museum directors. Four important activities have been analyzed from this institutional perspective: the management of the collection, pricing, special exhibitions, and ancillary activities. Directors of private museums have more of an incentive to attract large crowds and to generate additional income from ancillary services compared to the directorate of public museums.

In public museums, the directorate is often not able to use additional revenue generated and may even fear that subsidies will be reduced accordingly.

However, in recent years, differences between "purely private" and "purely public" museums have been disappearing as public museums gain more autonomy, public subsidies decrease, and private museums are faced with many public restrictions. More research is needed to understand how these new developments in the museum world influence the behavior of the museum directorate.

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