

THE ECONOMICS OF MUSEUMS

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Contents

Abstract	1018
Keywords	1018
1. Introduction	1019
2. Demand for museum services	1020
2.1. Private demand	1020
2.2. Social demand	1022
2.2.1. External effects	1022
2.2.2. Effects on markets	1023
3. Supply of museum services	1024
3.1. Cost structure	1024
3.2. Cost functions	1025
3.3. Firm structure	1026
4. Museum behaviour	1027
4.1. Neoclassical approach	1027
4.1.1. A representative model	1027
4.1.2. Critique	1028
4.2. Institutional approach	1029
4.2.1. Public museums	1030
4.2.2. Private museums	1030
4.2.3. Museums dependent on donations	1031
4.3. Museum behaviour in three important areas	1032
4.3.1. Collection management	1032
4.3.2. Pricing	1033
4.3.3. Commercial activities	1034
5. Current trends in the museum world	1035
5.1. Superstar museums	1036
5.2. Special exhibitions	1038
5.2.1. Demand aspects	1038
5.2.2. Supply aspects	1040

5.2.3. The future of special exhibitions

6. Conclusion

References

1042

1042

1042

Abstract

Museums fulfill many important functions in the art world and visits to museums are becoming an important leisure and holiday activity. This chapter surveys research about the functioning of museums from an economic point of view. Museum services are shaped by demand and supply factors and by the institutional setting constraining the decision makers in a museum. This chapter argues that the institutional factors, e.g., whether a museum is private or public, influence greatly how the museum is run with respect to the management of the collection, price setting, or the focus on commercial activities. Two current trends, the evolution of superstar museums and the growing importance of special exhibitions, are analysed from an economic point of view.

Keywords

museums, collection management, pricing, commercial activities, superstar museums, special exhibitions

JEL classification: Z1

1. Introduction

Museums are becoming more important nowadays than ever before. They play a significant role in people's leisure activities and constitute important tourist attractions. Consumers spend substantial amounts of money visiting museums, both in terms of admission fees and expenditures in museum restaurants and shops. These expenditures have a strong effect on local economies, especially in popular tourist areas. There are many types of museums, classifiable according to four different criteria:

- *Content:* Museums may contain art, historical artifacts, scientific objects, and/or many other exhibits of general and sometimes very specific interest.
- *Size:* Some museums are huge and draw thousands of visitors a day from far and near; others are small, have few visitors, are run by amateur staff, have very restricted opening hours and are only of local interest.
- *Age:* Some museums lay claim to a long and distinguished history and are often situated in very old buildings, while others are newly founded and may impress visitors with their spectacular architecture.
- *Institutional form:* Traditionally European museums have been public, even forming part of the normal government administration. But there have always been private museums. Most museums are neither completely public nor private but lie somewhere in between. Almost all private museums receive some form of government subsidy, often in the form of contributions made by donors, who can claim tax exemption.

Despite these various differences, however, all museums share some particularities and similar functions.¹ This chapter analyses the various types of museums and points out where different aspects are crucial for understanding the behaviour of museums.

The term "Economics of Museums" may be understood in two different ways:² First, a museum may be looked at as an economic unit, or as a firm providing certain services. The analysis then focuses on the relationship between the input (exhibits, manpower, etc.) and output measured, for example, in terms of revenue. Moreover, the effect of museums on the economy may be analysed, e.g., how much employment is generated and

¹ A museum might have five different functions: to collect, conserve, study, interpret and exhibit [Noble (1970)]. These five functions could be condensed into three: preservation, research and communication [Weil (2002)]. Ginsburgh and Mairesse (1997) take an empirical look at the mission statement of Belgian museums and propose an alternative definition of a museum.

² The Economics of Museums has been the topic of a number of publications, including Montias (1973), Peacock and Godfrey (1974), Feldstein (1991), Bayart and Benghozi (1993), Frey (1994), Martin (1994), Robbins (1963), O'Hagan (1995, 1998b), Johnson and Thomas (1998), Schuster (1998a, 1998b), Benhamou (1998), Meier and Frey (2003), Maddison and Foster (2003) and Weil (1987). It has also been covered in more general surveys [Throsby (1994); Blaug (2001)], in monographs and textbooks [Frey and Pommerehne (1989); Frey (2000); Heilbrun and Gray (2001); Benhamou (2000)] and in readers in the field of cultural economics [Blaug (1976); Peacock and Rizzo (1994); Ginsburgh and Menger (1996); Towse (1997a)]. Early contributions in German are by Kindermann (1903), and in English by Robbins (1963, 1971), Baumol and Bowen (1966) and Peacock (1969).

how much added value is created in other sectors. Second, applying an economic way of thinking to museums involves assuming that individuals pursue their utility within the constraints imposed by institutions and the environment, especially where resources are scarce. This methodology has been applied to many different areas, such as politics, law, history, sports, or religion.³ The economics of museums thus clearly distinguishes itself from other ways of studying museums, in particular the sociology of museums or the art historic points of view.⁴

The economic approach to museums may rely on standard or rational choice theory derived from neo-classical economics; individuals are then taken to be completely rational and selfish, and the analysis focuses on market relationships, which are assumed to function well. Political economy or public choice economics studies the behaviour of governments and public administrations as they affect museums, not only through subsidies and taxes but also through the web of regulations. Other types of economic theory may also be applied. In the context of museums, a particularly important variant is to take psychological aspects into account: individuals are not totally rational and are sometimes subject to anomalies, and they may to some extent be other-regarding and act in a pro-social way.

This chapter proceeds by looking first at the demand for museum services and then at the supply. Museum behaviour is analysed from a neoclassical and then from a more institutional perspective. The next section is devoted to public policy issues connected with museums, and the last section discusses current trends in the museum world from an economic point of view.

2. Demand for museum services

There are two types of demand for museums. The first is the private demand exerted by the visitors. These may be persons interested in the exhibits as a leisure activity or as part of their profession as art dealers or art historians. The visit may be undertaken by an individual or family, or may be part of an organised outing, e.g., by schools or firms. The second type of demand comes from persons and organisations benefiting from a museum. This social demand is based on external effects and/or effects on economic activity.

2.1. Private demand

By far the largest number of museum visits can be attributed to leisure time activity; since visits by the specialists mentioned above play a relatively minor role, they can be ignored here. The number of visits can be analysed by a traditional demand function,

³ See, for example, Becker (1976), Hirshleifer (1985), Kirchgässner (1991) and Frey (1999).

⁴ For example, Bourdieu (1979), Moulin (1986), Di Maggio (1986), Foster and Blau (1989) and Blau (1995).

capturing the major factors determining the number of visits in any given period of time. There are three major determinants relating to prices or costs:

(i) *Admission fee.* Econometric estimates for a large number of different museums in various countries suggest that the demand for museum services is price inelastic.⁵ However, most studies are limited to case studies of one or two museums. For example, Goudriaan and Van't Eind (1985) found an average price elasticity of -0.1 to -0.2 for four Dutch museums. Darnell, Johnson and Thomas (1992) found a higher elasticity of -0.55 for one particular museum in Great Britain. Luksetich and Partridge (1997), using US data from the 1989 *Museum Survey*, estimated demand functions for different types of museums. Their estimated price elasticity ranged from -0.12 to -0.26 , depending on the type of museum. The elasticity for art museums was found to be -0.17 . Zoos, science museums and natural history museums showed the largest price sensitivity, probably due to greater competition from other leisure activities. Overall, the low price elasticities suggest that museums could generate significant increases in revenues through increasing admission fees.

(ii) *Opportunity cost of time.* For persons with high income or who are self-employed, the opportunity cost of time is higher than for people of low income or on fixed working hours who 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 there. For tourists, the opportunity costs of time tend to be lower than for local inhabitants, because they often visit a city with the express purpose of visiting the respective museums. Econometric estimates have found no clear link between income and attendance (Luksetich and Partridge (1997)); this is in line with Gapinski's (1986) findings for the lively arts. The increased opportunity costs of time for wealthy people attending art performances offset the positive income effect; the two effects have to be separated in order to find a positive income effect and a negative opportunity cost effect on demand.⁶

(iii) *Price of alternative activities.* These are, most importantly, alternative leisure activities such as going to other cultural events (theatre, cinema), taking part in sports, dining out in a restaurant, spending time with friends at home, etc. Even within the industry, one museum may be an alternative to another museum. But complementary costs also systematically influence the number of museum visits; for example, the costs incurred through travel, accommodation and meals may be important. These complementary costs constitute a high percentage of the total costs of a visit; Bailey et al. (1998) estimated them at more than 80 percent. Cross-elasticities have been found to be empirically significant for the arts,⁷ but there have been no estimations of demand

⁵ Apart from the question of how sensitive the demand is to price increases, there has been extensive discussion about the effect of charging an admission fee at all. For a general discussion about the question of what to charge, see O'Hagan (1995).

⁶ See Withers (1980) for estimations for the performing arts.

⁷ See Gapinski (1984, 1986) for estimations for the performing arts.

functions for museum services incorporating such variables. Income is another "classical" determinant affecting the demand for museum visits. Econometric estimates reveal an income elastic demand.⁸ Estimates of income effects are often ambiguous, because the rising opportunity cost of time goes hand in hand with higher income. There is also a high correlation between income and education; better-educated people have the human capital necessary to benefit more fully from museums than people with lower education.⁹ It can be suggested that this factor plays a larger role for museums of modern art and history than for museums of science and technology, especially transport museums (railways, cars, or space travel).

There are many other determinants to be included in a well-specified museum demand function.¹⁰ One is the quality of the collection or the special exhibition mounted. Luksetich and Partridge (1997) estimated that the value of the collection increases attendance figures, especially for art museums. Or, as Oster and Goetzmann (2001, p. 9) state: "In fundamental terms, these results suggest that art matters." Other determinants are how attractive the building is and the level of amenities provided by the museum, i.e. the general atmosphere, the extent of congestion in front of the exhibits, the cafés and restaurants, and the museum shop. The marketing efforts made by a museum also matter. A final determinant of the rate of museum visits is that of individual preferences, which are difficult to measure independently. Econometric studies of museum demand functions often indirectly capture individual preferences by introducing past visits as a determinant. In all empirical estimates, this factor has proved to be highly significant and important: persons who visited a museum in the past are more likely to do so in the present and future.

2.2. Social demand

Museums have effects on society which go beyond the experiences of the actual museum visitors themselves. These social effects include externalities and the effects on markets.

2.2.1. External effects

Museums create social value for which they are not compensated in monetary terms. As a consequence, museums tend not to produce these values, or in too low an amount. Five types of non-user benefits can be distinguished in the literature:

- *Option value*: People value the possibility of enjoying the objects exhibited in a museum sometime in the future.

⁸ See, e.g., Withers (1980).

⁹ For the influence of art lessons on museum visits, see Gray (1998).

¹⁰ Many studies analyse surveys about museum visitors in order to see who actually visits the museums [see, e.g., Dickenson (1997)] and how much visitors benefit from their visits [Ashworth and Johnson (1996)].

- *Existence value*: People benefit from knowing that a museum exists, but do not themselves plan on visiting it now or in the future.
- *Bequest value*: People derive satisfaction from the knowledge that their descendants and other members of the community will be able to enjoy a museum in the future if they choose to do so.
- *Prestige value*: People derive utility from knowing that a museum is highly valued by persons living outside their community – they themselves need not actually like the museum, nor even visit it.
- *Education value*: People are aware that a museum contributes to their own or to other people's sense of culture and value it because of that.

Museums may also produce negative external effects, the costs of which are borne by other people. An example is the congestion and amount of noise museum visitors inflict on the local community.

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

- An obvious possibility is to conduct representative surveys of both visitors and non-visitors to a museum. The questionnaires have to be carefully designed in order to elicit the true willingness to pay for the various social values produced by a museum. Contingent valuation studies, first developed to capture environmental values, have done a good job of capturing cultural values.¹¹
- Other techniques rely on the revealed behaviour of individuals, for example, by estimating the extent to which property values increase in a city containing a museum, assuming that people are willing to pay more for a house or apartment situated in a location with a museum compared to an equivalent house or apartment in a location without such a museum. The same "compensating variation" can be computed by analysing wages, if persons are willing to work for lower compensation in a location housing a museum. The compensating variation method has been used, for example, by Clark and Kahn (1988).
- A third approach for capturing social values is to analyse the outcome of popular referenda on expenditures for museums. In Switzerland this approach has been successfully implemented in identifying options, such as the existence and bequest values of buying two Picasso paintings for a museum [Frey and Pommerehne (1989, Chapter 10)]. In the case of the performing arts, Schulze and Ursprung (2000) have analysed a referendum in Switzerland to gauge the amount of support for the opera house in Zurich. They were also able to identify external effects.

2.2.2. Effects on markets

Museums produce monetary values for other economic actors by creating additional jobs and commercial revenue, particularly in the tourist and restaurant industries. These

¹¹ See, for example, Martin (1994). The extensive empirical literature is surveyed in Noonan (2002); for a critical discussion from a behavioural point of view, see Sunstein (2002).

expenditures induce further expenditures and a multiplier effect results. Impact studies¹² measuring the additional market effects created are popular with politicians and administrators because they provide them with reasons for spending money on museums. However, these studies have to be interpreted very carefully:

- 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 providing non-user benefits.
- It is *not* the task of a museum to stimulate the economy; there are generally much better means of achieving that goal. A theme park, for example, may be better able to stimulate the economy.

3. Supply of museum services

3.1. Cost structure

Museums have cost structures that differ from those of other firms in the service industry in at least four respects:

- *High fixed costs.* Museums in general operate with high fixed costs: buildings, exhibits, staff, insurance, technical outfits, etc. cannot be changed in the short run. Thus in the short run the operating costs of museums tend to be independent of output. In other words, variable costs constitute a relatively low percentage of total costs, and hence museums face rapidly decreasing unit costs when the number of visitors increases.
- *Marginal costs are close to zero.*¹³ If a museum sets up an exhibition, the basic operating costs consist in opening the museum on a particular day, which to a large extent is independent of the number of visitors. In these circumstances the marginal costs of an extra visitor are close to zero. However, in some circumstances (for example, so-called "blockbuster" exhibitions), an additional visitor may impose congestion costs. Maddison and Foster (2003) analysed the congestion costs at the British Museum using contingent valuation techniques; they estimated that the cost imposed by the marginal visitor was £8.05, an estimate that seems to be exceptionally high.
- *Dynamic cost.* It might be claimed that museums face the same economic dilemma as most cultural organisations, namely the cost disease¹⁴ whereby they are subject

¹² See, e.g., Seaman (1997, 2002) and, for two special exhibitions, Wall and Roberts (1984).

¹³ Even if the output unit is the number of hours or days per year for which the museum is open, this statement probably holds. The British Museum tried to cut costs by closing some sections, but they did not achieve a big cut in costs – at least not in the short run [see Anon. (2002); Art Newspaper (2002)].

¹⁴ For a detailed survey of Baumol's Cost Disease, see Towse (1997b). For a critique, see Cowen (1996) and Peacock (1993, pp. 66–70). See also Chapter 11 by Baurnol and Chapter 15 by Brooks in this volume.

to a productivity lag that produces constant financial problems. However no empirical study exists analysing this claim for museums. Indeed, productivity advances in the museum industry seem to be possible: items can be shown on the Internet; surveillance can be undertaken by cameras; increased reliance may be placed on volunteers; activities may be outsourced; or institutional settings may be changed, like introducing New Public Management for public museums, or privatising them entirely. All these changes work against the potential effects of the cost disease.

- *High opportunity costs.* Museums own, through their collections, endowments which are often highly valuable. For most museums the value of their holdings is by far their greatest asset. The objects in a museum's collection generate not only storage and conservation costs but also opportunity costs. The opportunity cost of keeping a work of art is the return generated by its alternative use, i.e. by selling the work of art and investing the money in options. Other opportunity costs refer to the building and its alternative uses.¹⁵ Most museums do not place a value on their collection in their accounts. In Great Britain, not placing a value is even a condition of registration with the Museums and Galleries Commission [Bailey and Falconer (1998, p. 173)]. Museums understate their true capital costs by not taking opportunity costs into account [Grampp (1989, p. 171)]. Neglecting opportunity costs can partly be explained by a rational reaction of the museum directorate to action undertaken by the political sector.¹⁶

3.2. Cost functions

It is important to know how museum costs vary with regard to output and input. One of the few museum cost functions to be estimated is that of Jackson (1988).¹⁷ This study took various activities of the museum into account and analysed their influence on costs. The log-linear model is:

$$\ln TC = \ln a + b \ln Q + y \ln W + s \ln K + r_1 EX + r_2 ED + r_3 CN + r_4 MB + r_5 AC, \quad (1)$$

where TC is total operating cost, Q is the total attendance figure, W is the wage rate paid per worker, and K is the cost of capital measured as the ratio of promotional expenditures such as development, membership and advertising, to contributions from all public and private sectors. Because a museum can engage in various activities, the study looked at how priorities set by the museum influence costs. Therefore, EX are exhibition expenses as a fraction of total operating costs, ED are educational expenses, CN are

¹⁵ In some cases, the opportunity cost of the land may be quite high, as museums are often situated in commercially attractive locations; see Rosett (1991) for more details.

¹⁶ This question will be discussed in more depth in Section 4 below.

¹⁷ For a cost function for performing arts, see, for example, Lange et al. (1985).

conservation and preservation expenses, and *MB* are expenses in connection with membership activities. Because quality strongly influences costs in the performing arts,¹⁸ the study tried to capture quality by looking at which museum had been accredited with the American Association of Museums; *AC* is a dummy variable equal to 1 if accredited and 0 otherwise. This is only a rough proxy for quality.

The results, based on data from the Museum Program Survey 1979 for 326 US museums, yielded two interesting results: First, museum operation appeared to be characterised by economies of scale. Operational costs changed more slowly than attendance figures in small museums with up to 99,000 visitors a year. However, for bigger museums, diseconomies of scale were at work. Average cost curves for (art) museums were downward sloping with low attendance levels and rose only after the annual number of visitors exceeded 100,000. This result backs up the statement about museums being a decreasing cost industry. Second, an increase in expenses for membership activities as a fraction of total operating expenses decreased total costs. This may be due to the fact that a more active group of members stimulates voluntary work and that the cost of capital can be decreased as fundraising becomes easier.

Overall it can be said that more research is needed for us to fully understand the cost functions of museums.¹⁹

3.3. Firm structure

Museums can take different organisational forms. They are mostly either private for-profit organisations, private non-profit organisations, or public organisations run in a non-profit-making way. In Europe and the United States, the non-profit organisational form predominates for museums. Various hypotheses have been put forward to explain the dominance of non-profit firms in the museum world and the arts in general.²⁰ According to Weisbrod (1977), non-profit organisations were established due to an unsatisfied demand for public goods. Alternatively, the cost structure of museums may be responsible for establishing non-profit organisations.

Most museums face a demand curve lying below the average cost curve. This makes it impossible to set a price at which total admission receipts cover the total costs of the museum. If price discrimination is not applicable or only of limited use, Hansmann (1981) argued that arts organisations can still ask individuals for voluntary price discrimination. Visitors volunteer to pay more than the official admission price and thus become donors. The non-profit form is superior to the for-profit enterprise when it comes to getting donations, because consumers lack exact information about the quality of the

¹⁸ See Throsby (1977) and Globberman and Book (1974).

¹⁹ For a related branch of research on efficiency measurements in museums, see Mairesse and Vanden Eeckaut (2002) and the literature cited there.

²⁰ For a selection of articles dealing with non-profit firms in the arts, see Di Maggio (1986). For a general survey about non-profit firms and altruistic behaviour, see Rose-Ackerman (1996). See also Chapter 15 by Brooks in this volume.

good and service provided. It is impossible to draw up a contract which gives donors complete protection from being exploited. As a consequence, donors prefer non-profit firms, where the possibility of managers exploiting donors and consumers is limited.²¹

Smolensky (1986) argued that educational externalities, and not decreasing costs, led to the non-profit form of museums. In Europe, governments started to support museums because of these educational externalities while in the United States "public provision was rejected as a socialist solution" [Smolensky (1986, p. 768)]. The non-profit form that was subsequently established was a hybrid, applicable not only to museums but to performing arts organisations, universities, libraries and hospitals.

4. Museum behaviour

Two theoretical approaches for analysing the behaviour of museums are presented here: the neoclassical approach, which assumes rational actors maximising the utility of a museum in a benevolent way, and the institutional approach, emphasising how various institutional settings (e.g., the dependence on public support) influence the behaviour of the museum management. These approaches are then used to analyse three major activities of museums: collection management, pricing policy and commercial activities.

4.1. Neoclassical approach

4.1.1. A representative model

Throsby (1994) presented a model of the behaviour of performing arts firms which can be applied to museums. The model assumes that there is no distinction between ownership and control of the firm. The directorate of the museum maximises the firm's utility function. Assuming that a museum's objective is non-profit making, the budget constraint requires zero net revenue. It has been proposed that the museum's utility is related to the number of visitors to the museum (*y*) and the quality of the exhibitions (*q*). This assumes that the quality of the museum service can be measured. The museum management thus decides to maximise

$$U = U(y, q) \quad (2)$$

subject to

$$p(y)y + g(q) + h(y) - c(y, q) = 0. \quad (3)$$

The museum gains revenues from entrance fees (*p*), which is a function of the number of visitors (*y*); the level of donations and government grants (*g*), which depend exclusively on the quality of the museum; and the revenue from ancillary goods from the shop

²¹ For a similar argument, see Glaeser and Shleifer (2001).

and the restaurant or café (h), which depends on the number of visitors. Costs depend on both output and quality.

The first-order conditions can be written as:

$$U_y/\lambda + p_y y + p(y) + h_y = c_y, \quad (4a)$$

$$U_q/\lambda + g_q = c_q, \quad (4b)$$

$$p(y)y + g(q) + h(y) = c(y, q). \quad (4c)$$

The subscripts indicate partial derivatives and λ is the multiplier on the constraint.

This formulation produces two insights: First, directors of a non-profit museum receive extra utility from a higher number of visitors. They therefore set the entrance fee in such a way that marginal revenue from entrance fees and ancillary goods is less than marginal costs. This result may explain why museums set too low a price compared to the revenue-maximising condition [e.g., Luksetich and Partridge (1997)]. Second, museums engage in quality beyond the point where marginal grant income is equal to the marginal cost of increasing the quality by one unit. This behaviour is due to the extra utility the museum gets from an increase in quality. According to the model, museums tend to provide too high quality at too low a price, compared to a revenue-maximising firm.

The objectives of the museum, the quality of the exhibition and the number of visitors are crucial elements in the above model. Hansmann (1981) analysed the extreme cases of a museum interested only in quality, a steady flow of visitors or budget. For example, the quality maximising firm sacrifices the number of visitors for the sake of quality. But different forms of public grants also affect the result. While lump-sum subsidies would lead to an increase in quality for the quality maximiser, the increase in the number of visitors has a less certain effect. It only happens if the increase in the flow of visitors does not increase the cost of quality, and if the marginal visitor attracted has an unusually marked taste for quality. Different behaviour results if the museum is supported in matching grants with the donations it receives. In this model, a subsidy does not only increase donations, but will induce the museum to adjust quality and price (and therefore visitor flows) to a level closer to maximising consumer welfare.²²

4.1.2. Critique

The model presented above assumes that managers of museums behave in a benevolent way and are driven only by a cultural aspiration favourable to the owner of the museum (e.g., the public, private donors and/or a foundation). But this assumption may be criticised in two respects: First, managers of museums and chief curators are likely to behave in a more selfish way than assumed by the model. Second, it may be that

²² Many studies show that grants which match donations increase willingness to donate (see further Chapter 35 by Netzer and Chapter 36 by Schuster in this volume); see also List and Lucking-Reiley (2002) and Ribar and Wilhelm (2002).

museum managers are primarily interested in their reference group and try to maximise their respective reputations; in the absence of the right incentives, they will not produce the quality and quantity maximising the firm's or consumers' utility.

4.2. Institutional approach

Museum managers (as well as all other actors in society) may be assumed to be primarily, or even exclusively, concerned with their own utility. They may therefore be taken to be interested in their own income and the prestige they get within their reference group, consisting mainly of art lovers and the international museum community. A second source of utility has to do with agreeable working conditions and job security. But the museum management is not free simply to pursue its own goals, because it faces certain constraints on its actions. Differences in these institutionally determined restrictions may explain the museum management's behaviour.

The financial resources available are the most important constraint on museum management. Other constraints such as limited space or legal and administrative burdens imposed by the public bureaucracy or labour unions can also weigh heavily. Income sources differ considerably between museums. Some depend mostly on public grants, while others rely more on private money (donations and sponsorship, or income generated from entrance fees, shops and restaurants).²³ From a politico-economic point of view, the institutional set up and the nature of funding museums has a dramatic influence on the behaviour of its management.²⁴

Most museums lie somewhere between the extremes of purely public and purely private museums.²⁵ In the last couple of years, more public museums have moved in the direction of private museums because state support has decreased, especially in Europe [NEA (2000)]. Governments, as a consequence, have given the museum managers more independence. Both the discretionary room and the pressure to generate more income of their own has increased. Nevertheless, the institutional setting remains crucial for the behaviour of the museum management. The fact that public museums change their behaviour notably once they have more independence underlines the power of institutional factors.

In the following sections we distinguish between three types of museums: public museums, private museums, and museums dependent on donations. The three models of museums generate predictions for the behaviour of agents, e.g., managers, donors, and visitors.

²³ Rosett (1991) presents evidence on the financing of US museums, which support the notion of heterogeneous funding of museums.

²⁴ See Frey and Pommerehne (1989), Rosett (1991) and Meier and Frey (2003); see also the theory of non-profit organisation in Weisbrod (1998), James (1983), Schiff and Weisbrod (1991), and for a principal-agent model, Prieto Rodriguez and Fernandez Blanco (2002).

²⁵ See Schuster (1998a), van Hemel and van der Wielen (1997) and Meier and Frey (2003).

4.2.1. Public museums

Directors of purely public museums rely exclusively on public grants. The government allocates them sufficient funds to cover the expenses considered necessary for fulfilling their tasks. While they are expected to keep within their budget, if a deficit does occur, 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 management does not allocate energy and resources to generate additional income, because any additional revenue produced goes back into the national treasury. Moreover, with a surplus, the public grants would correspondingly decrease, which acts like an implicit tax of 100 percent on profits. Instead, the museum management emphasises non-commercial aspects, such as referring to intrinsic "artistic", "scientific", or "historical" values. This application of non-commercial standards helps the museum management to achieve their goal of prestige, top performance and pleasant working conditions. Even if museum revenue was not automatically to go back to the public purse, Maddison (2004, p. 89) 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". Based on this institutional point of view, one would therefore expect that:

- Public museums will not sell any paintings from their art collection because the management is prevented from using the income generated as it would wish, and selling part of the collection would leave management vulnerable to criticism from outside (be it by politicians or by public administrators) because "artistic" activities have now become monetised [Frey (1994); Montias (1973)].
- Directors of public museums will have little interest in the number of visitors, because they are not dependent on income from entrance fees or shops. Therefore, exhibitions will be designed to please an insider group of art "freaks".
- Visitors' amenities in public museums will be poorly developed, and little attention will be paid to the profitability of museum shops, restaurants and cafeterias.

4.2.2. Private museums

Managers of purely private museums have a strong incentive to increase their income, because their survival depends on revenues produced by entrance fees, the restaurant, shop surpluses and additional money from sponsors and donors. If private museums manage to generate a surplus, the management can use it for future undertakings. Consequently, it is to be expected that private museums will behave in the following ways:

- They will rely on the market when managing their collection. Museums will actively sell paintings that no longer fit into the collection and use the money to buy new works of art.
- They will actively seek to gain additional revenue from museum shops, restaurants and cafeterias, and will be prepared to host non-artistic events such as corporate meetings in their facilities.

- Private museums will be concerned with attracting visitors. "Blockbuster" exhibitions will help the museum to earn revenue, because the preferences of a larger group of people will be catered to. The management will make a huge effort to have the exhibitions well arranged from a didactic point of view and appeal to a large crowd.
- Private museums will emphasise amenities to visitors, such as cafeterias and clean restrooms.

4.2.3. Museums dependent on donations

In some countries, contributions to non-profit museums are deductible under the income tax rules for individuals and corporations.²⁶ A reduced marginal tax reduces the willingness to donate because the implicit price of doing so rises. The tax-deductible status, if chosen by the museum, affects behaviour fundamentally. There is an incentive to avoid profits by charging low or "social" prices (which strengthens the legitimacy of tax-deductible status). There is also an incentive to take out profits in the form of various kinds of payments, showing up as costs.

Museums depending on donations have an incentive to attract donors, and they devote a great deal of effort and resources to this end. Donors can exercise some measure of control over the activities of museums.²⁷ Museums dependent on financial and/or in-kind donations are expected to behave in the following way:

- Donors will directly influence museum policy by interfering in the programming, or they can set strictly binding constraints on the ways in which works they donate can be used. Most donors have clear ideas on how the works of art donated should be exhibited. Donors in general will also want to prevent paintings donated from ever being sold, which imposes considerable opportunity costs on museums. Donors can benefit from museums publicising their contribution, thus enhancing their prestige [Glazer and Konrad (1996); Harbaugh (1998)]. Museums have developed an elaborate system of honours, ranging from appropriate attributes ("benefactor", "patron", "contributor", etc.), to naming rooms, wings and even whole buildings after the donor.
- Museums must make the impression that donations are well used, so that donors will have the feeling that they are contributing to a worthwhile cause. It is crucial that the art institution has a good reputation with the public and the media to encourage a regular flow of donations. This compels the museum management to act efficiently. Contracts cannot completely control the museum managers. Donors will therefore prefer to deal with non-profit firms acting under a "non-redistribution constraint" (i.e. prohibiting the personal appropriation of profits). Removing the profit goal avoids the problem that managers cheat on the donors to a certain extent [Hansmann (1981)].

²⁶ For an overview of the legal possibilities of deducting donations to the arts from taxes, see Schuster (1985, 1986), and Chapter 36 in this volume.

²⁷ As discussed in Glaeser (2001, p. 39) and Oster and Goetzmann (2001).

4.3. Museum behaviour in three important areas

4.3.1. Collection management

In most art museums throughout the world, a considerable portion of the holdings of paintings is not exhibited and not accessible except perhaps to specialists. What constitutes a major part of a museum's wealth does not appear on any balance sheet; the bookkeeping procedures of art museums often do not even mention that the paintings collected are of any value, although at today's art market prices collections of even minor museums are likely to be worth millions of dollars and in the case of major museums many hundreds of millions of dollars.²⁸ The museum managers know, of course, that their holdings are very valuable. Three reasons can be put forward which may explain this behaviour:

(i) The government may impose a legal constraint on selling. Many, or even most, public museums in continental Europe are prohibited from selling works from their collection, a practice known as de-accessioning.²⁹ This practice is often allowed in the United States and to a lesser extent also in Britain [Grampp (1996)], but as O'Hagan (1998a, p. 171) notes: "The real opposition arises from the museum personnel and not from the law." Even in the United States where it is legal to sell paintings the curators argue that it is not ethically right to do so unless one improves the collections in the process. However, Temin (1991) for instance argues that museum directors should be allowed to be more flexible in using the money of de-accessioned paintings, e.g., for operation expenses.

(ii) Voluntary contracts between the museum management and the donors of paintings may act as a constraint. In these circumstances the management is faced with a trade-off between receiving additional paintings and having to accept certain restrictions [Thompson (1986); Weil (1987)]. Today, few museums are prepared to accept such restrictions being attached to a donation [Weil (1987)].

(iii) The most convincing explanation for the behaviour observed refers to institutional differences. For public museums, the museum directorate has no incentive to sell the holdings it has in storage³⁰ for two major reasons [Frey (1994)]. First, when a painting 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. Even if this were not the case, it is likely that the budget allocated to the museum would be correspondingly reduced. This institutional setting undermines the incentives to manage the collection on the market. Second, selling paintings means that the existing stock of art is at least partially monetised, which may encourage outside

²⁸ Most art museums hold a large part of their paintings in storage rooms – up to 80 percent of the collection; see, e.g., Lord, Dexter and Nicks (1989).

²⁹ For a discussion on the legal aspects of de-accessioning art, see White (1996).

³⁰ Pommerehne and Feld (1997) also found differences in buying paintings by public and private institutions; for example, public museums paid more in art auctions than private investors did, *ceteris paribus*.

interference by politicians and parliamentarians into the museum's business [O'Hare and Feld (1975)] since the museum directorate's "performance" becomes easier to evaluate. As long as the criteria for evaluation are exclusively of an art historic nature, 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 way of contrast, private American art museums actively sell and buy art as they see fit; for example, in the period 1988–1989, 88 museums sold 1284 lots worth \$29.6 million, and 93 museums bought 142 lots worth \$37.5 million [Cantor (1991, p. 21)]. The director of the Getty Museum stated that "this practice ... (is) the key to shaping the collections by the staffs of many major big city museums with large collections, and others too" [Feldstein (1991, p. 26)]. Note that if the name of the donor is attached to the painting, the donor's resistance to de-accessioning may be reduced.

Lending policy is a different but related phenomenon. There is a norm not to exchange works of art using the price mechanism [Caves (2000, pp. 345–347)].³¹ Even private museums follow this rule.³²

4.3.2. Pricing

Museums differ in the way they set entrance fees. There is an extensive discussion on whether to charge or not to charge,³³ a discussion that probably goes back to Sir Hans Sloane, whose donation at his death in 1753 led to the founding of the British Museum, but with the explicit restriction not to charge an entrance fee. Even today, most British museums do not charge their visitors for admission. In the United States too, there are some museums, at least the national ones, which do not levy an explicit entrance fee. Two main arguments are put forward in favour of free admission. First, there are some positive externalities connected with a museum, as discussed above, and therefore the museum should be compensated for this service by tax money. Those who actually visit a museum probably benefit most from the museum; hence an entrance fee should be levied over and above the contribution from general taxation. There does not seem to be any evidence that this measure hits low-income groups disproportionately [O'Hagan (1998a, p. 178)]. Second, the low or zero marginal costs of a visitor suggest that a zero price is efficient. However, as mentioned above, the assumption of zero marginal costs can be criticised for various reasons.

There are a variety of pricing options besides free admission: donation boxes with and without price suggestions, seasonal tickets with zero marginal pricing or a free-day

³¹ Russian museums are an exception. Western museums are prepared to waive their rule of not paying money for lending works of art, because they acknowledge that Russian museums are extremely short of cash.

³² Note that there are many advantages to having instead a market relying on barter; for an overview, see Heilbrun and Gray (2001, pp. 202–209).

³³ For an overview, see, e.g., O'Hagan (1995), Heilbrun and Gray (2001) and Bailey and Falconer (1998).

policy.³⁴ In addition, price discrimination, often supported by economists [e.g., Frey (1994)], can be undertaken in times of high demand and/or with respect to the type of visitor. For example, many 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 and less during summer holidays. Tourists could be charged more than local residents. Visitors who want to spend little time in a particular museum could be charged less. In periods of high demand when the art museum is stretched to capacity, a high and a low entrance fee could be set; the higher-priced entrance will have a shorter queue and will be used by visitors with high opportunity costs, often persons with above-average income, whereas the lower-priced entrance will be used by visitors not wanting to spend too much money, and having plenty of time at their disposal.³⁵ Such price differentiation is advantageous for both categories of visitors (the one gets in more quickly, while the other pays less) as well as for the museum, which can raise its revenue.

The question of how pricing influences the finances of museums depends not only on the price elasticity of demand. Charging can also influence the flow of public subsidies and donations. Moreover, pricing decisions also impact on the amount of income generated with ancillary goods, like revenue from the shop and restaurant. In some cases, the government enforces targets which the museum managers have to comply with, such as a given number of visitors or a given amount of revenue. Darnell (1998) analysed the effect of such targets on admission fees for the museum. In the case of inelastic demand curves, the museum may face the problem that there is no fee attracting enough visitors and bringing in enough revenue at the same time. The demand curve may be shifted (e.g., by advertising more or improving the quality of the visitors' experience) to make the two targets mutually compatible. However, this model does not incorporate the possibility of raising revenue from sponsors, donations or ancillary goods.

The complementarities between admission fees and sales in museum stores and cafeterias affect optimal pricing strategy.³⁶ The empirical result in Steiner (1997) did not suggest that an additional free day maximises revenue, since decreased admission revenue was not compensated for by larger sales in shops and restaurants.

4.3.3. Commercial activities

In addition to the core activities of museums directly related to the works exhibited or stored, most museums also engage in ancillary activities. The revenues from these

³⁴ Museum passes have become quite common in Europe and America. A pass allows free entrance in every museum in a given city or region. Ginsburgh and Zang (2001, 2003) focused in their analysis on how the revenue of such a pass can be distributed to the participant museums. Based on theoretical arguments drawn from game theory, they proposed distribution using the Shapley value.

³⁵ Oberholzer-Gee (2002) presented evidence in a field experiment where money was offered in order to be able to jump the queue. While a majority would like to jump the queue, only a minority in the queue were prepared to accept the money.

³⁶ For a general theoretical discussion of the interdependence between entrance fees and ancillary goods, see Marburger (1997).

activities can make a large contribution towards the operational expenses.³⁷ Museums operate museum shops, restaurants and cafés, sell catalogues, make money from parking lots, organise cultural trips, etc.³⁸ When the first museum shop was established by the Metropolitan Museum of Art in New York in 1908 [Weisbrod (1988, p. 109)], it was rather the exception than the rule. Today, many American museums not only operate their own shops, but also run off-site stores even in a totally different city, as does the New York Metropolitan Museum of Art.

Why do museums engage in ancillary activities? Is the museum world increasingly commercialised? Directors of museums do not necessarily want to produce ancillary goods as such; often they only serve to generate revenue for the core activity. But institutional factors may force museum directors to engage in such activities.³⁹ Weisbrod (1998, p. 58) cites the example of the British Museum where, in 1996, the government announced it would reduce its subsidies; the museum then started to discuss new possibilities of raising revenues.⁴⁰ However, the empirical evidence on commercialisation is ambiguous. Heilbrun and Gray (2001, p. 210) state that "Earned income accounted for only 16.1 percent of the total in 1993 but rose to 25.9 percent in 1997." In contrast, Anheier and Toepler (1998, p. 240) concluded from their more in-depth study: "Our data suggest that art museums have not become significantly more commercial in recent years." Segal and Weisbrod (1998) found for the arts industry that a decrease in donations (or public grants) increases ancillary activities. Much more research is needed to gain more precise knowledge.

Does the commercialisation of museums lead to a new type of museum manager? Anecdotal evidence suggests that at least in Europe arts organisations increasingly demand that their managers have some business experience.⁴¹ This trend is especially marked in the so-called superstar museums to be discussed in the next section.

5. Current trends in the museum world

Two developments relating to museums are worth special attention: superstar museums and special exhibitions.⁴²

³⁷ See, for instance, Heilbrun and Gray (2001, p. 211) and Anheier and Toepler (1998).

³⁸ Many books offer advice on how to maximise profit from specific services such as the management of museum stores; see, for example, Theobald (2000).

³⁹ See the data in Frey and Pommerehne (1989).

⁴⁰ In the case of the British Museum, and general problems of extended management discourse within museums, see Zan (2000).

⁴¹ See also Anon. (2001).

⁴² This section follows Frey's ideas closely [Frey (1998); Frey and Busenhardt (1996)].

5.1. Superstar museums

There are a few really well-known and world-famous museums. They can be called "superstar museums" because they have a special status setting them far apart from other museums. They are distinguished by five characteristics:

- Superstar museums are a "*must*" for tourists. They are featured prominently in guidebooks, and have achieved a cult status almost everyone is aware of. European examples include the Hermitage (St. Petersburg), the Vatican Museums (Rome), the Uffizi (Florence), the Prado (Madrid), the National Gallery (London), the Kunsthistorische Museum (Vienna), the Rijksmuseum (Amsterdam), and the Louvre (Paris). In the United States there are certainly few tourists who would not visit the Metropolitan Museum of Art and/or the Museum of Modern Art when in New York, the National Gallery of Art when in Washington, or the Art Institute when in Chicago.
- Superstar museums have *large numbers of visitors*. Over the last decades, these museums have experienced a dramatic increase in the number of visitors. In contrast, many small museums have fewer and fewer visitors.
- Superstar museums feature *world-famous painters and world-famous paintings*. Rosen (1981) originally developed the superstar idea, emphasising that differences in income often far exceed differences in talent and performance. This also applies to artists and painters. The great disparity among artists is a striking feature of all the studies on the distribution of income among artists.⁴³ The collections in large museums comprise works by thousands of artists; only a few of them are known to art lovers, let alone to the average visitor. Museums wanting to attract a large crowd have to concentrate on a few renowned artists. Some paintings are known to virtually everyone in the Western world (and far beyond), but the number of such paintings is rather small. Examples are the "Nightwatch" in Amsterdam's Rijksmuseum, or "Las Meninas" in the Prado. The quintessential superstar painting is Leonardo's "Mona Lisa"; the Louvre has responded by indicating the most direct way to get to the Mona Lisa from the entrance. Even the Vatican Museum now posts the (more or less) direct way to another world famous work of art, Michelangelo's frescos in the Sistine Chapel. From the visitors' point of view, even very large museums are closely associated with, or defined by, very few (often one or two) paintings – the superstar phenomenon. Museums are not only the proud owners of these masterpieces, but they are also their captives. They are forced to exhibit them, but this also means that in comparison their other paintings lose prominence. There may be a slight spillover of interest to less renowned pieces in the collection, but the main effect of the superstar works is to draw attention away from the rest of the collection.

⁴³ See, e.g., Filer (1986) or Frey and Pommerehne (1989, Chapter 9).

- Superstar museums often have an *architectural design* making the building itself a world-famous artistic feature. Examples are Frank Lloyd Wright's Guggenheim Museum in New York; the Centre Pompidou in Paris; Mario Botta's San Francisco Museum of Modern Art; Frank Gehry's Guggenheim Museum in Bilbao, and Richard Meier's Getty Center in Los Angeles.
- Superstar museums are *commercialised* in two ways: A significant part of their income derives from the revenue of the museum bookshops and museum restaurants and they have a major impact on the local economy.⁴⁴

The importance of these five characteristics varies amongst the different superstar museums referred to above. Ideally, they would meet all of the criteria; the Musée du Louvre is an example of one that does (the architectural feature being Ming Pei's pyramid at the entrance). Other superstar museums are very strong with respect to some characteristics, while barely meeting others. Examples would be the Getty Museum in Los Angeles, which excels with respect to the architecture (including its location) but does not have as many world famous artists and paintings as other superstar museums. Another example is Amsterdam's Rijksmuseum, which is not particularly noted for its architecture, especially when compared to the Louvre.

Superstar museums are able to exploit economies of scale by reaching out to a large number of people. They are not only featured in newspapers, on the radio and TV, but can raise enough money to produce their own videos and virtual museums. These sorts of costs are essentially independent of the number of consumers and therefore favour the major museums, because the set-up costs are normally too high for smaller institutions. While the latter will certainly catch up (a homepage will soon be a matter of course for all museums), the major museums will have the funds to improve their scope and quality so as to maintain their lead. Superstar museums have started to branch out by establishing museum networks. Thus, for example, the London Tate Gallery has spawned satellite museums at Liverpool and St. Ives and, of course, the New Tate, and the Prado has started to lend out about one third of its holdings to museums in the provinces.

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 large area, including commercial activities and sponsors.

Superstar museums must make a huge effort to stay in that category. Frantic activities are therefore often undertaken: special exhibitions are organised in the hope that they turn out to be blockbusters, visitors' amenities are improved (e.g., a larger variety

⁴⁴ In the case of the Guggenheim Museum in Bilbao, a discussion emerged as to how much this superstar changed the economy. While Plaza (1999) showed that the number of visitors to the Basque region increased dramatically due to the Guggenheim Museum, Gómez (1998, 2001) emphasised that one should be more cautious in analysing the effect on urban regeneration, because it is still too early to assess the economic impact of the museum on the city. For a broader discussion of "museum cultural districts", see Santagata (2002) and Chapter 31 in this volume.

of fancy restaurants) and new buildings with stunning architectural designs are added (e.g., in the case of New York's Museum of Modern Art). The superstar status tends to transform museums into providers of "total experience". This new role stands in stark contrast to the traditional notion of museums as preservers of the past.

The "total experience" offered by superstar museums, and demanded by the huge crowds of visitors, must meet two conditions:

- Art must be placed in the context of history, technology and well-known events in politics and entertainment, such as motion pictures. Superstar museums are constantly under pressure to be "special", i.e. to also somehow embed the permanent collection in a context attractive to a large numbers of visitors.
- Superstar museums must be able to provide everything, not unlike entertainment parks; the activities offered extend beyond cafés, restaurants and museum shops. Many superstar museums have already gone far in this respect; the Louvre, for example, opened a commercial precinct called "Le Carrousel du Louvre", a large underground shopping mall. Activities of superstar museums supply all sorts of educational activities (not only for children but also adults), and most importantly, plain entertainment.

5.2. Special exhibitions

There is hardly an art museum not running, or at least preparing, a special exhibition of some sort. Such an exhibition may feature one particular artist (often in commemoration of his or her birth or death) or a group of artists, or it may focus on a period or a genre of paintings, or it may establish a connection to some historical event [Belcher (1991, p. 49)]. Some special exhibitions are composed solely of paintings from the holdings of the organising museum, but most of them bring together works of art from different museums and private collections. Once put together, large temporary exhibitions frequently travel to other museums coordinated with the organisers. Some exhibitions are shown in various countries. Often, important museums have several exhibitions simultaneously which they have either organised themselves or taken over from other organisers. The boom in special exhibitions poses a challenge to art economists, because of the glaring contrast to the financial depression in which many museums find themselves. Even in some of the world's leading museums, 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.

5.2.1. Demand aspects

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

- *High income effect.* Consumers tend to spend an increasing amount of their income on visiting specially arranged art exhibitions. Scattered empirical evidence exists showing that econometrically estimated income elasticities of demand for

museum visits in general are larger than one (see above). Special exhibitions thus find themselves in the comfortable position of being in a growing market.

- *Attracting new visitor groups.* As has been well documented in cultural sociology [e.g., Klein (1990)], a large percentage of the population rarely if ever visits museums (except museums of technology and transport). This applies in particular to population groups with low education which are also short of cultural tradition.⁴⁵ The situation is clearly different for special cultural events, which are widely advertised and which are made attractive to new groups. As special exhibitions normally take place in museum premises, they still face the difficulty of attracting new groups. This is partly overcome by "dressing-up" the museum.⁴⁶ special exhibitions are marked by huge banners and other advertising strategies, and even the museum entrances (which to non-museum goers can otherwise look menacing) are made welcoming. Extensive promotion also plays a role.
- *Focusing attention.* A special exhibition seeks to attract consumers by presenting them with some extraordinary cultural experience. They specialise on some particular artist (e.g., Rembrandt or van Gogh), some period (e.g., Renaissance paintings), some topic (e.g., courtly paintings), some genre (e.g., mannerist paintings), or some type of presentation (e.g., portraits). As a result, the visitors interested in such forms of art come together, often from faraway locations. Special exhibitions, in particular the blockbusters, may even be compared with major sports events such as the Olympic games or world championships. Public attention is drawn away from regular activities towards a special and unique (or at least rare) event.
- *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, while the permanent collection is hardly newsworthy.⁴⁷ Large exhibitions devoted to iconic artists such as Rembrandt, Van Gogh or Picasso mobilise the press and thrust the museum organisers into the limelight.⁴⁸
- *Low cost to visitors.* Special exhibitions are closely linked with tourism.⁴⁹ A considerable number of visitors come from out of town, from another region, and often from a foreign country. Being able to combine a cultural event with tourism lowers the individual's cost of attending in various ways. In the case of the increasingly popular package tours, the 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 is substantial.

⁴⁵ See Blau (1989) and Di Maggio and Useem (1978).

⁴⁶ See also Elsen (1986).

⁴⁷ See, e.g., Bayart and Benghozi (1993, p. 210).

⁴⁸ See also Elsen (1986, p. 20).

⁴⁹ See, e.g., Getz (1989) and O'Hagan (1992, p. 65).

- *Low price elasticity of demand.* The strong attraction of special exhibitions to tourists also affects the price elasticity of demand. Tourists relate the entrance 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.⁵⁰ This effect is supported by empirical evidence. Attendance figures at the Museum of the Palazzo Ducale in Venice, for example, have been fairly stable, although admission fees for the exhibitions presented in recent years have on average increased by more than 10 percent. In fact the number of people visiting the Palazzo Ducale seems to be in direct proportion to the number of people visiting the centre of Venice [ICARE (1994)].
- *High demand by business.* Special exhibitions offer museums ample opportunities to make money. Indeed, there is a large literature documenting the monetary profitability of such cultural events.⁵¹ These opportunities not only extend to the tourist industry but also to firms catering for the production of festivals and exhibitions. In the case of special exhibitions, there is also a benefit to publishers of books and catalogues.

5.2.2. Supply aspects

There are also various special determinants on the supply side of special exhibitions which contribute to their boom.

- *Low production cost.* The absolute cost of many special exhibitions is certainly high, but it is low compared to the sum of money they would require 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 are involved in organising and running special exhibitions, but the corresponding cost is not attributed to the special event [Montebello (1981)]. Some cost factors, though substantial, often only appear in disguised and long-term form. One such cost is the neglect of cataloguing and maintaining the permanent collection.⁵² But also the museum rooms, where special exhibitions take place, do not enter into the costs accounted for, as the opportunities forgone are not part of the bookkeeping.
- *More scope for artistic creativity.* Museum directors are bound by artistic conventions; for example, the particular hanging of pictures at many museums has become part of the cultural heritage, and it is next to impossible to rearrange the permanent collection to any significant extent. Special exhibitions offer a chance to avoid such historical restrictions. One of the major tasks and potentials of an art exhibition is to arrange the art objects in such a way that they create new insights and effects. In

⁵⁰ For the general argument, see Thaler (1980); for museum admission fees, see Blattberg and Broderick (1991).

⁵¹ For example, Feldstein (1991), Fronville (1985) and Di Maggio (1985).

⁵² See Börsch-Supan (1993) for several pertinent examples.

addition, the actual assembly of art objects coming from many different permanent collections provides a much sought-after challenge to museum directors, curators, exhibition and graphic designers, conservators, editors and managing officers, to demonstrate their artistic creativity and sense of innovation, and possibly to raise controversy – aspects which are highly valued by museum people for their own sake, but also because it is beneficial for their careers.

- *Evading government and trade union regulations.* Cultural institutions' freedom to act is restricted by two major institutions, the government and trade unions. Government restrictions go far beyond budgetary affairs. They hinder the art institutions' way of acting and performing in a myriad of ways: Thus, pricing policy is greatly restricted, as well as opening times.⁵³ In view of the strong hand exercised by the government, and its persistence due to a long tradition, engaging in special events presents a major possibility for getting round these regulations. So, for example, special exhibitions provide an opportunity for directors of art museums to appropriate at least part of the extra revenue generated. Being an extraordinary event, the museum directors are in a good bargaining position vis-à-vis the public budgetary authorities to maintain some discretion over these funds, and not to be heavily "punished" by a reduction in future budget allocations. In addition, one of the most stringent public regulations imposed on public art institutions relates to government sector employment; the virtual impossibility of dismissing inefficient or downright destructive employees, of promoting and paying employees according to performance, and of adjusting working hours to actual needs are major factors in reducing creative endeavours and turning art institutions into mere bureaucracies. Special exhibitions make it possible to avoid at least some employment restrictions, especially as most of the respective employees are only part-time and temporary, are not union members, and are therefore not legally bound by trade union regulations.
- *More sponsoring.* Politicians and public officials have an interest in special exhibitions which enable them not only to respond to the demands of the art world and the local business community, but also to appear in the media as "patrons of the arts" (with tax payers' money). Business is also more prepared to sponsor special exhibitions than regular activities, where legal provisions often hinder sponsoring. The most important reasons for the attractiveness of these events to sponsors are the higher media attention they attract, and the fact that an individual firm has more control over the funds contributed and sees less of it wasted by an inefficient bureaucracy, as is frequently the case with opera houses or art museums. Sponsors "want a well-defined, high quality event aimed at specific audience" [Anon. (1989)]. For the reasons given above, the corporate sponsors also feel that their contributions add to cultural output, and do not simply induce the government to provide less subsidy.

⁵³ For many examples, see, e.g., Börsch-Supan (1993, pp. 11, 15).

5.2.3. The future of special exhibitions

As special exhibitions become the rule rather than the exception, there is pressure to have them carry their full costs, 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 will continue to have a strong and lasting impact on the art world. On the demand side, they have opened up art to an increasing number of people. This "popularisation" may not be in the interests of some art suppliers and art lovers, but from the point of view of caring for individual preferences, it is a considerable achievement. On the supply side, the increased competition between producers of art has transformed career patterns at museums and has led to a new relationship between potential and actual art consumers. By subjecting art producers at least partly to the market, it has also favoured more efficient forms of organisation and production in the world of art. These trends are likely to continue.

6. Conclusion

This chapter has treated various aspects of the production of museum services. From an economic point of view, two different approaches have been distinguished: first, we have shown that museums may be looked at as an economic unit where inputs and outputs can be analysed; second, we have demonstrated how the economic way of thinking can be applied to museums and individuals (directors, curators, politicians, visitors, donors, etc.) connected with them. The chapter has discussed the demand and supply side of museums, the behaviour of museums, and the phenomena of superstar museums and special exhibitions as two recent trends in the museum world. We have emphasised that the behaviour of museum management is guided by the institutional setting. According to this theory, the main source of funds has a major impact on the behaviour of the museum. The management's decisions to raise income through ancillary services, or to manage their collection on the market, or to set entrance fees depend to a large extent on the ownership of the museum. In looking at museum behaviour, we make a distinction between private and public museums and museums dependent on donations.

A worthwhile goal for future research is to understand more fully how the changing environments in which museums are acting influence the behaviour of the museums. How will museums adapt to the new situation? The rise of superstar museums and the reliance on special exhibitions are two such notable developments. But the future may well bring new environments. Museums will no doubt rise to the occasion.

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