41 Museums

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Museums are an important mechanism for conserving, interpreting, researching and displaying heritage. A recent international yearbook (Zils, 2000) lists some 40000 such institutions worldwide. Numbers of museums and visitor numbers are somewhat unreliable, but it is estimated (Creigh-Tyte and Selwood, 1998) that, in the mid-1990s, there were around 19000 museums in the EU (excluding Greece and Ireland, countries for which no data were available). These museums attracted about 370 million visits. There are substantial variations in the incidence of visiting across European countries, from 2.8 visits per year for each member of the population in Austria, to 0.7 visits per year for each member of the population in Belgium, Finland and Spain. It should be noted, however, that these visit incidence figures are affected by the presence of foreign visitors. In the USA, there are well over 8300 museums, attracting nearly 900 million visits. Trends in the number of visits in recent years have varied from country to country. For example, while such numbers in the USA have risen rapidly, they appear to be static or falling in the UK.

Museums have a mix of ownership patterns. For example, over 40 per cent of US museums are governed by public authorities at various levels, with the rest under private management, mostly on a non-profit basis. The breakdown in the UK is not dissimilar. The museums sector embraces a very wide range of institutions of varying size and reputation. At one end of the spectrum are the internationally renowned 'superstar' organizations like the Rijksmuseum in Amsterdam or the Louvre in Paris, with their world-class collections and research activity and millions of visitors per year. At the other are a very large number of relatively small, often locally focused museums, which sometimes depend significantly on volunteers for their continued operations; they undertake little or no research.

A museum may be regarded as a 'firm' using inputs to produce output. This output has a number of important economic features. First, some of it – the conservation of collections – is in part intended for 'consumption' by future generations. By definition, such generations are unable to express their preferences in today's market place in respect of which artefacts should be preserved. So some other mechanism for deciding *now* what is likely to be valued *in the future* is therefore necessary. Not all would agree that these decisions should be left in the hands of 'experts'. Secondly, in many cases the output is of a multi-product nature: research papers, visitor experience (often affected by ancillary activities such as retailing and catering services), catalogues of the collection, and a collection in good condition. How this mix is determined, in a world of limited resources, is a crucial task of museum managements and will reflect both their personal and organizational objectives, which may sometimes be in conflict. For example, if a priority objective is to enhance access, a museum may need to divert resources from cataloguing or research into developing the visitor experience. A curator whose own priority is to undertake research may find such a switch of resources uncongenial and may resist it. Thirdly, there are some public good aspects to much museum output. Research findings, for example, exhibit non-excludability and non-rivalry in consumption. The visitor experience displays non-rivalry (at least up to capacity limits), but is typically excludable. These public good characteristics have implications for pricing in a welfare optimal way. Finally, museum output may generate externalities, a characteristic further discussed below.

Most work on the demand for museum output has been on visitor demand, but it is important to recognize that the visitor experience may be only one element of a given museum's output. Empirical studies (Darnell *et al.*, 1998) suggest income elasticities of visitor demand greater than one and (absolute) values of admission price elasticities of demand of less than one. This latter result suggests, not surprisingly, that museums are seeking objectives other than profit maximization. It should be noted, however, that for most visitors the admission price is only one component of the total cost of a museum visit. Travel and accommodation, for example, may dwarf the cost of entry. Many museums have a zero admission price, so it is not possible using conventional modelling to estimate admission price elasticities. Museum demand tends to be very seasonal. Whether differential pricing across the seasons is appropriate depends on the objectives of the museum. Price discrimination may enhance income, although it should be noted that it is not necessarily the case that demand is less elastic – and therefore that price should be higher – in the peak.

Museum visitors tend to be drawn disproportionately from higher-income and better educated groups (for some US data on art museums, see US Census Bureau, 2000, table 440). We know something about the determinants of the 'value for money' perceptions by visitors. One study of a regional museum found that higher earning visitors tended to receive lower value for money than their lower paid counterparts, presumably because the opportunity cost of their time is higher (Ashworth and Johnson, 1996). The same study also confirmed that congestion reduced value for money perceptions. Thus demand may be affected by the number of other people consuming the same service at the same time.

Repeat visiting is an important component of the demand for the services of many museums, with some relying on this source for as much as 80 to 90 per cent of their visits. The economic determinants of repeat visiting have not been explored in any detail in the literature (see, however, Darnell and Johnson, 2001), although the phenomenon is likely to be of particular importance for maintaining visitor numbers for mature museums in areas where the population is relatively static. The introduction of 'loyalty' schemes by museums that charge an entry fee and the development of new exhibitions could play a significant role in stimulating repeat visits.

The supply side of museums' services tends to be marked by relatively high fixed costs, reflecting the existence of core curatorial and administrative staff and the dominance of the collection in the museum's activities. In addition, the marginal costs of servicing an additional visitor are likely to be very low up to capacity limits. Some cost flexibility is possible in dealing with fluctuating visitor demand, but this tends to concern lower paid employees. The evidence suggests relatively limited economies of scale, at least for art museums.

Volunteers play an important role in some museums, particularly small-scale, independent ones. A substantial proportion of independent museums use *no* paid staff at all. The nature and management of voluntary work in museums raise some interesting economic issues, not least because such work usually implies a considerable consumption element in the process of production and because volunteers may also be an important category of visitors and suppliers of funds.

Like the rest of the economy, museums are subject to dynamic change. We know that there are life cycle effects and that the relative importance of different types of museum changes over time. Hudson (1987) has documented the growth of major innovative museums throughout the world. It should also be noted that there is an important sense in which the supply of artefacts is not fixed. New areas and priorities for conservation develop – museums of photography are a good example – and this in turn provides opportunities for innovation in the museums sector.

New technology and other forms of innovation affect preservation and display techniques. Indeed, the advent of the Internet and 'virtual' museums has potentially very substantial implications for the way in which museums are operated and the markets that they serve. In 2001, the Museum of Modern Art in New York reported (*www.moma.org*) that its 2.5 million online visitors exceeded physical attendance at the museum. Museums have increasingly seen themselves as operating in a competitive market for visitors (see below), which in turn has created pressure to develop more visitor-friendly ways of operating.

As elsewhere in the economy, there is significant turbulence, especially in the lower size bands. Entry of new independent museums in the postwar period has been substantial: in the USA, for example, 40 per cent of museums were formed after 1970. Unfortunately, we know relatively little about museum death rates, although exit rates tend to be higher in the smaller size bands.

Museums vary in their growth rates. The evidence (Johnson, 2000) is that growth in visitor numbers of local authority and private museums tends to vary inversely with their size, again measured in terms of visitors, a result consistent with a wide range of studies on the size–age relationship in industry. There is no significant effect of age on growth.

Many museums receive some form of public subsidy, although the extent and nature of this subsidy varies from one museum to another. The funding of museums remains a source of considerable debate. A case for public funding can be made on the basis that museums generate external benefits: for example, knowledge of the heritage acquired by a visitor may be passed on to others. Museum visiting may also generate ideas for commercial activity, a factor behind the setting up of the Victoria and Albert Museum in London. Museums may be seen, too, as providing merit goods: they generate a better educated and informed public and may stimulate collective public pride. In addition, option and bequest values may be generated. Public funding may also be justified on the grounds that a welfare-optimizing price, based on marginal cost, would be near to zero, at least up to capacity limits, and would not therefore ensure financial viability. The case *against* public funding is that it may encourage inefficiency, lead to government failure and favour the well-off.

There can be little doubt that, in recent years, museums throughout the world have become much more visitor-oriented. The prime responsibility of museums is now seen, both by museum managements and by the public, as being much more towards their visitors than to their collections. This shift in emphasis is in part due to the fact that public funding has not kept pace with museum growth. As museums have sought to develop other sources of funding, so it has become increasingly important for them to focus on the preferences of their 'customers'. It is also the case that prospective commercial and other donors are likely to be interested in how wide an audience the recipient museum is likely to reach. The increasing use of 'blockbuster' special exhibitions, such as the Vermeer exhibition at the National Gallery in London, is in part a reflection of the greater visitor orientation of museums.

As public funding has declined in relative importance, so museums have turned to other potential sources of finance. First, charging for admission has become more commonplace, and in some museums more sophisticated, in terms of price discrimination. Secondly, museums have developed ancillary commercial activities, such as shops and restaurants. Thirdly, museums have become more active in seeking external, non-government sponsorship. These funding sources may be interrelated, not only with each other, but also with government funding. For example, donors may be less willing to give to museums that are charging visitors. Museums that are seen to be becoming more financially self-reliant may jeopardize their government funding. And, of course, admission prices and the amount spent on ancillary activities are likely to be related: raise the admission price and there may be less to spend in the shop or restaurant.

The collection still remains the key asset of a museum, and raises some important resource allocation issues. For example, what is the appropriate balance between activities devoted to new acquisitions, preservation and display? For many museums only a small fraction of their collection is on display at any one time – a phenomenon known as the 'Prado effect' (Peacock, 1994), after the museum of that name in Madrid where the 'on display' element is around 10 per cent. The Prado effect raises questions about the purpose of collecting artefacts if they are not used for display. A further issue relating to collections is deaccessioning, the disposal of artefacts. This is not a straightforward matter. Initial acquisition may have only been achievable by the museum accepting responsibility in perpetuity. Furthermore, curators may be reluctant to dispose of an artefact in case it becomes 'valuable' at some later stage. These restrictions on deaccessioning may, however, lead to some ossification in the sector by impeding efficient reallocation of collections over time.

Some work has been done on the economic impact of museums on the local economy, in terms of employment or other conventional economic indicators. There are a number of limitations to these studies – not least that they are largely static in nature, and they are often stimulated by 'special pleading' – but, carefully done, they can provide helpful mapping exercises. Two empirical studies (Johnson and Thomas, 1992; South West Museums Council, 2000), suggest that the ratio of total 'gross 'employment, that is employment after allowing for indirect and induced effects, to the 'direct' employment in the museum(s) studied is around 1.4. But this figure is sensitive to the choice of geographical reference area and to the presence of spare capacity in the local economy. These sorts of impact studies focus on some of the economic *consequences* of museums, rather than on their primary *purpose*, which is to enhance enjoyment, learning and understanding. Economic analysis can help in the measurement and valuation of these more fundamental benefits, through, for example, contingent valuation techniques, but to date relatively little work has been undertaken in this area.

See also:

Chapter 17: Costs of production; Chapter 32: Heritage; Chapter 43: Non-profit organizations; Chapter 47: Performance indicators.

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