Measuring the Economic Impact of the British Library

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Objectives for this presentation

- A brief overview of the British Library

- The Library’s traditional approach to measuring value:
  - Quantitative (inputs and outputs)
  - Qualitative (case studies)

- A new approach to measuring value - what we decided to do and why
The British Library holds unsurpassed collections and offers a great range of services based on them.

One of the five largest research libraries in the world

250 years of collecting – across time, space, disciplines, languages, cultures, formats & materials

150 million items (books, serials, newspapers, microforms, philatelic, sound, manuscripts, graphic & electronic materials)

Legal deposit worth £10m per year – and now e-legal deposit

£14.9m annual acquisitions budget

Accommodation for over 1200 readers at St Pancras

The largest document supply service in the world

Serves researchers, business, libraries, education and the general public

‘Helping people advance knowledge to enrich lives’
What do we know about the value of the British Library?

- We have an incredible range of information resources and we know that they are valuable.
- And we have very considerable staff expertise and we know that this is valuable.
- But just how much value does the British Library add?
- How do we go about demonstrating our value, and communicating that value in a meaningful way?
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The Library’s traditional approach to measuring value:
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- A new approach to measuring value - what we decided to do and why
Traditionally we have measured value through measures of input and output

- **Examples of inputs in 2002/03**
  - We added ~2,700,000 new items to our collections
  - We employed 2,300 staff

- **Examples of outputs in 2002/03**
  - We supplied over 8,000,000 documents remotely and in reading rooms
  - We attracted over 8,000,000 hits on our online catalogue
  - We received 382,000 visits to our exhibition galleries at St Pancras
In addition, we have gathered evidence of our value to business…

In support of business:

- We provide services to 83% of the top 100 R&D investing companies in the UK.

- We have wide experience of delivering services to businesses of all sizes, and across a range of R&D focused industries.

- We have a flagship central London building readily accessible to the nation’s SMEs (45% of them are based within 90 minutes travel of the Library).

Case study example

‘Contemporary publishing depends upon the research and scholarship of the past. Both publishers and authors rely on the British Library’s unrivalled collections to provide the raw materials that help inspire and inform them in their work. At Faber & Faber, we and our authors remain heavily dependent on the British Library’s resources to provide well researched, authoritative new writing’

Lord Evans, Chairman, Faber & Faber
…and of our value to higher education.

In support of higher education:

- We have unparalleled breadth and depth in our world-wide research collections well in excess of what is possible in HE institutions.

- Over 50% of the Library’s activities support HE.

- 63% of all registered readers are academics.

- 10,000 items are accessed in the BL Reading Rooms by HE readers every day.

Case study example

‘The world class research carried out in UK HE is dependent on resources provided by the British Library. We have built a strategic alliance between our two organisations to cement the relationship between the Library and HE. It prepared the ground for further joint activity to ensure that UK researchers have the resources they need, and to hold our lead in exploiting the full potential of new digital information sources.’

Sir Howard Newby, CEO, HEFCE
Objectives for this presentation

- A brief overview of the British Library
- The Library’s traditional approach to measuring value:
  - Quantitative (inputs and outputs)
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- A new approach to measuring value - what we decided to do and why
We wanted to obtain a quantitative holistic measure to reflect the total value of the British Library to the UK economy.

- How much value, in monetary terms, does the Library add to the UK economy as a whole?
- What benefit does the Library bring the UK relative to the public funding it receives?
- What would be the economic impact if the Library ceased to exist?
Our reasons for wanting to measure our value like this were four-fold:

- To government and to the taxpayer
- Confirm our own belief in the value the Library brings
- For continued investment
- To help us understand our impact more clearly
- To inform our thinking about our products and services
So we undertook a quantitative assessment of the value generated by the Library to the UK economy

- We commissioned work to provide an independent assessment of the value of the British Library to the UK economy

- The study was undertaken by Spectrum Strategy Consultants, and Indepen Consulting

- The core of the work took place over the three month period, August to October 2003
The study showed that the British Library generates value around 4.4 times the level of its public funding.

- For every £1 of public funding the British Library receives each year, £4.40 is generated for the economy.

- If public funding of the Library were to end, the UK would lose £280m per annum.

- Excludes value generated for non-UK registered users which is considerable.

Note: (1) Net of BL revenues. (2) In 02/03 Library received £7m of donations/investments and £27m from its commercial services in addition to GIA.
Work undertaken by Spectrum and Indepen

- Specialists in content, communications & convergence
- Work across media, telecom & IT sectors
- Clients include: BBC, Siemens, BT, Ofcom, DCMS, Vodafone, Channel 4, South Bank Centre

- Economic & Policy Advisors
- Work across public sector or regulated utilities
- Clients include: DfES, DoH, DCMS, Ofwat, Ofcom

Long Term Partnership
The aim of the project was to place a monetary value on the British Library

- Objective was to derive total value of the Library – use value, option value and existence value
- But not all the Library’s services could be valued. Focus was on
  - Reading room access to collections
  - Remote document supply and bibliographic services
  - Public exhibitions and events
  - Indirect value of existence and option to use the Library to wider society
- No precedents for a National Library – partial values for New Zealand national library and some work on public libraries
The British Library supports the activities of businesses that generate £172bn of added value to the UK economy

- The Library plays a fundamental role in supporting industry to generate massive economic activity. Its customers
  - contribute £172bn (1) (40%) of added value to the UK economy p.a.
  - generate profits of £29bn and employ 2.8m people in the UK
  - includes five of the top ten companies ranked by value add, Shell, BP, Glaxo-Smithkline, BT and Unilever

- The Library’s role within research and development is particularly important, supplying 40 of the top 50 companies by R&D expenditure

- Whilst it is impossible to attribute a specific proportion of this value add to the Library, it is in part responsible for the value they create

Note:  
(1) DTI value added scorecard 2003
Two main valuation methods were available

- Consumer surplus approach measures economic impact through the value individuals directly gain above the price they pay.
- Macro-economic impact analysis measures economic impact through macro-economic variables such as expenditure, GDP contribution and employment.
- This study selected the consumer surplus approach.
  - Macro-economic impacts doubtful because of “displacement” effects.
  - Value of the Library is unlikely to be readily captured by macro-economic variables e.g. value of cultural heritage to future generations.
  - Less subjective as difficult to prove the link to macro-economy e.g. use of the Library is one of many factors that contributes to scientific discoveries.
Consumer surplus represents the value under a demand curve above the price paid

- The net benefits consumers enjoy from consuming a good/service
- Captures the benefits created for non-other users and future generations
- Measured through either
  - revealed preference or
  - stated preference techniques
We primarily adopted a leading stated preference technique known as ‘Contingent Valuation’

- Involves the construction of a ‘hypothetical market’ within a questionnaire
- Interviewees asked a range of questions and asked to provide a monetary estimate of the value of the Library to them
  - directly measures consumer surplus
  - captures use value, option value and existence value
- Cross checked against values derived from cost of access and market benchmarks
Precedents

Used for decades within the environmental and transport fields

- Emerged in US when used to quantify damages in legal disputes over environmental damage
- Major review in early 1990s by Nobel prize winners Arrow and Solow provided backing for the technique
- Now commonly used
  - recommended by institutions such as the World Bank and OECD
  - has been used by UK Government departments in setting policy
  - 1,000s of studies completed in academic literature
### Quantification questions

We derived values through four main types of question:

| Willingness to pay | ■ Asking individuals how much they are willing to pay to continue to access the service  
|                    | ■ Directly measures the demand curve with a budget constraint  
| Willingness to accept | ■ Asking individuals how much they would accept in compensation to forego the service  
|                    | ■ Directly measures the demand curve without a budget constraint  
| Investment in access | ■ Estimate the time and cost invested in accessing the service  
|                    | ■ Services must be worth at least that amount to them  
| Cost of alternatives | ■ Costs incurred if forced to use alternatives. Likely to be an upper-end estimate as may alternatively forego use  

To derive values the Library’s user groups were broken into discrete categories

<table>
<thead>
<tr>
<th>Value category</th>
<th>Segments</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading Room users</td>
<td>Academic</td>
<td>153,000 reading card holders, 113,000 of which are UK residents</td>
</tr>
<tr>
<td></td>
<td>Business</td>
<td>Estimate to make around 400,000 visits p.a.</td>
</tr>
<tr>
<td></td>
<td>Personal</td>
<td>30,000 visits p.a. to Colindale newspaper library</td>
</tr>
<tr>
<td>Remote Document Supply and bibliographic</td>
<td>Business</td>
<td>Around 4,000 customers</td>
</tr>
<tr>
<td>service users</td>
<td>Non-business</td>
<td>Revenue of £15m generated p.a. (80% of income from UK customers)</td>
</tr>
<tr>
<td>Public exhibition and event users</td>
<td>N/A</td>
<td>Around 364,000 visits made p.a.</td>
</tr>
<tr>
<td>Indirect value to wider UK society</td>
<td>Location</td>
<td>Around 48m UK adults</td>
</tr>
<tr>
<td></td>
<td>Income</td>
<td></td>
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A key element of the study was designing and testing the questionnaires

- Three surveys were designed and tested
- Had only one shot at the questionnaires, so had to get it right
- Issues to address were
  - how much information to provide to enable people to answer sensibly
  - how to ensure unbiased results
  - consistency in responses across questions (e.g. WTP less than WTA)
- Aim was to be realistic without scaring people into thinking Library might close or introduce charges
  - minimise protest votes
Surveys

NOP carried out most of the questionnaire work for us.

Reading room users
- 200 users of the reading rooms
- Weighted by academic, business and personal
- 29 users of the Colindale site (1)

Remote document Supply & bibliographic service users
- 100 users of the remote document supply service
- 50 commercial and 50 non-commercials users

Indirect value to wider UK society
- 2,030 members of the general public
- Randomly selected across the GB based on the population distribution

Note: (1) Completed by Spectrum
Key findings

We concluded that the British Library generates value around 4.4 times the level of its public funding

- For every £1 of public funding the British Library receives each year, £4.4 is generated for the economy

- If public funding of the Library were to end, the UK would lose £280m per annum

Total value relative to Grant-in-Aid

<table>
<thead>
<tr>
<th>Public funding</th>
<th>Total</th>
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<tbody>
<tr>
<td>£363m(1)</td>
<td>£83m</td>
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Benefit cost ratio 4.4:1

Note: (1) Net of BL revenues. (2) In 02/03 Library received £7m of donations/investments and £27m from its commercial services in addition to GIA
Challenges and issues

Difficult to capture all sources of value and currently to verify results

- Values not captured by this study
  - Role of the Library in the education sector
  - The value of on-line services and digital content
  - Benefits of having a better informed and educated population
  - Focus on benefits to UK users – what about non-UK users?

- Wider use of this approach will increase ability to validate results