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strategic services and support

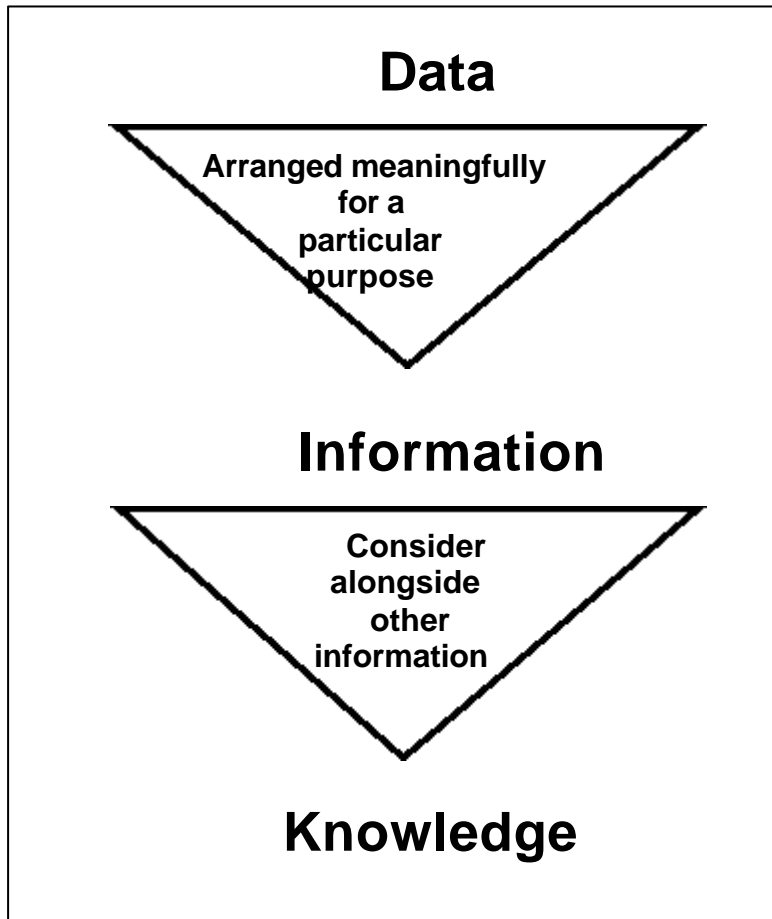
# **Presenting and Using Data to Support Strategic Thinking**

**South west arts marketing**  
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## PRESENTING AND USING DATA TO SUPPORT STRATEGIC THINKING

### Numeric data, information and knowledge

- The terms data, information and knowledge are often used interchangeably. However Davies & Botkin (1994) make a crucial distinction between the concepts the words represent.



- **Data**: refers to the raw building blocks, the basic units and bits of fact (e.g. 150 people visited this venue last week);
- **Information**: refers to a collection of data which has been collated and arranged meaningfully for a particular purpose (e.g. Put together with the attendances for other weeks, this means that in total this event has attracted 2, 620 people);

Whilst

- **Knowledge**: is what results when information is considered alongside and compared with other pieces of information (e.g. Compared with last year's comparable event which attracted 1,378 people this means that there has been a year on year increase in attendance of 90.13%).

Considered in this sense, numeric data and its expansion into information & knowledge has an important part to play in informing, supporting and communicating a strategic (marketing) analysis (or 'case').

## Presenting numeric data and information - the basics

### Tabulation

- Possibly the simplest way of ordering and presenting data in order to make it easier to understand or see the relationships between its various aspects is to **tabulate** it (i.e. put it into a 'table').
- For instance compare the usefulness of this:

#### The National Audience for the Performing Arts

Research carried out by ACGB shows that in 1993-94: 10.8 million people (23.8% of the GB adult population) attended plays; 5.5 M (12.2%) attended classical music; 3.1M (6.8%) went to ballet; 3.0M (6.6%) went to opera; 2.8M (6.2%) to jazz; and 1.6M (3.4%) attended contemporary dance.

With this:

#### Attendances at the Performing Arts - 1993/4

Performing Artform	Millions	% of population
Plays	10.8	23.8
Classical Music	5.5	12.2
Ballet	3.1	6.8
Opera	3.0	6.6
Jazz	2.8	6.2
Contemporary Dance	1.6	3.4

Source: Casey, Dunlop & Selwood (1996), p.60, after ACGB (1994)

Gough (1994) suggests the following tips when using tables.

If the table is indented to demonstrate a particular case or assertion...

- Round the numbers to make them easier to follow - it is usually best to present them correct to two significant figures.
- If you want the reader to compare certain numbers with one another, put the numbers in columns rather than rows.
- Think about the order in which the rows and/or columns of your table appear; some orders are easier to read than others.

- When you can, give totals and averages to help the reader.
- Make sure that any text explaining the table is as close to it on the page as possible - this helps the reader check that they have read the table correctly.
- Keep your tables small - it is much better to have four or five tables demonstrating particular points than to have one big table in which points get lost.

He also provides some general guidance for when producing tables either for demonstration or for reference purposes.....

- Ensure that all information the reader needs to understand the table is included.
- State which units are being used (and make sure the same units are used throughout each column or row as appropriate). Equally do state the source of the data.
- Space the columns and rows equally, and separate averages and totals onto different lines to make them easy to read.
- If you need to run onto more than one page, repeat the row and column headings.
- Keep categories the same throughout the table - e.g. don't change categories from one period of time to the next.
- Put the categories, which will be compared most often in columns - reading up and down a column is easier than across a row.
- And make sure that the units in your figures, the commas and the decimal points actually line up.

### **Visual presentation - graphs and charts**

- The saying that 'a picture is worth a hundred words' is probably true.
- Charts and graphs can enhance financial reports considerably, since they allow the user to discern trends, proportions and relationships.
- However to avoid the danger of using charts "like a drunk uses a lamp - post (for dubious support rather than illumination)", attention needs to be paid to:
  - Some fundamental rules relating to charts; and
  - Selecting the right chart for the job in hand.

## Graphs and charts - some fundamental rules

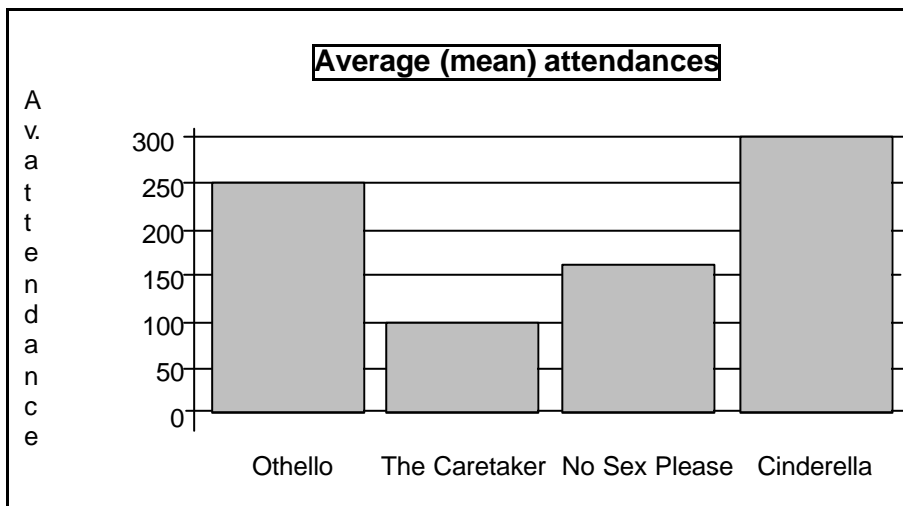
- Too much information can be confusing; too little information may denude accuracy.
- Decide upon a scale, which is appropriate. Generally vertical scales are most revealing if they only cover the range of values to be plotted, rather than starting at zero. But if the scale does not start at zero, make sure that this is clear.
- If two charts are provided for the purposes of comparison, make sure that they are drawn to the same scale:

## CHARTS - SELECTING FROM THE REPERTOIRE

- Selecting the right chart for the job is very much a case of 'horses for courses'.
- Picking an inappropriate chart cannot only be misleading, but can also result in misinformation.
- The following is a list of the more common charts with some situations in which they could be used:

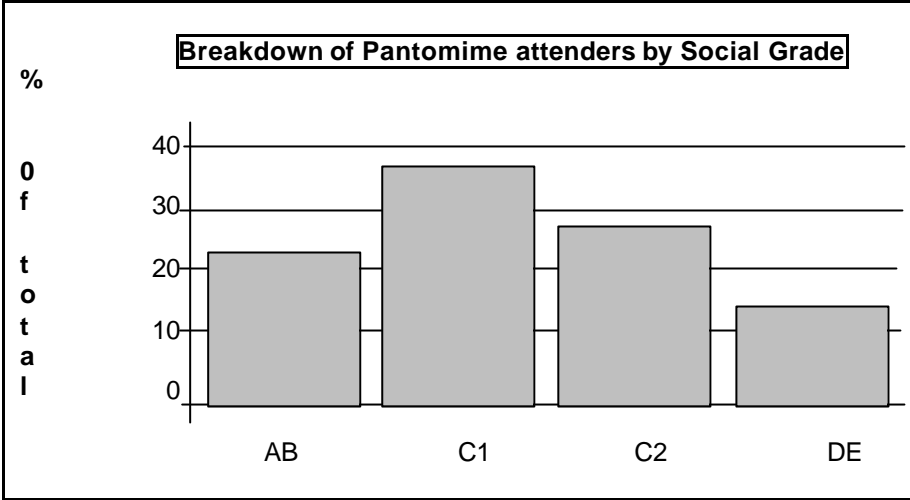
### The bar chart:

used to compare quantities in absolute units between items.



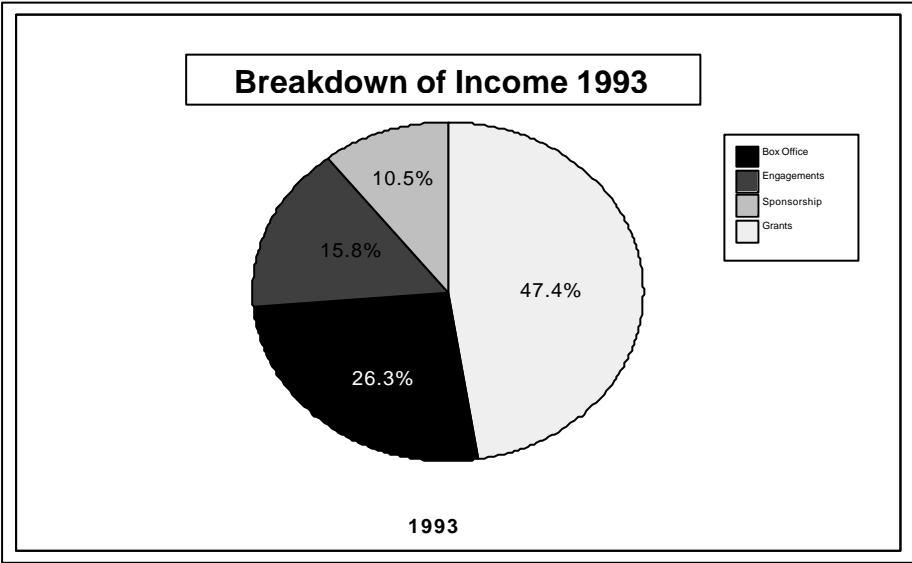
**The percentage bar chart:**

used to compare quantities in percentage terms between items, without showing the whole to which the percentage relates.



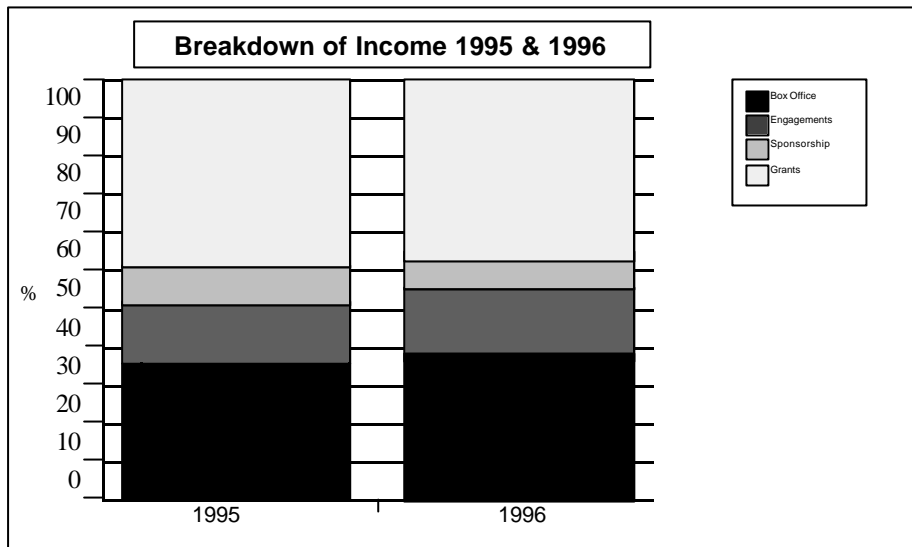
**The pie chart:**

Used to show component items as a proportion of a whole



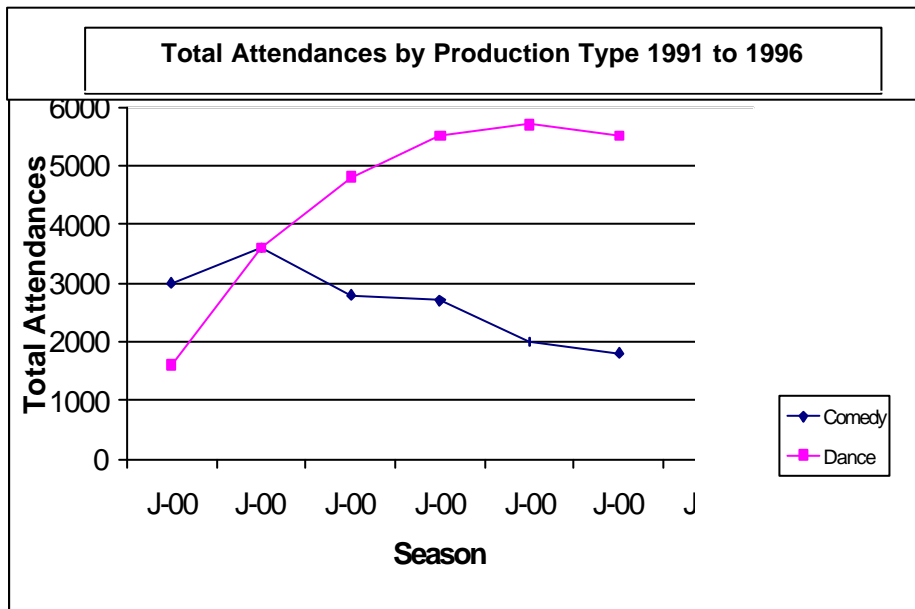
**The stacked bar chart:**

used to show component items as a proportion of the whole, and in comparison with components of other wholes



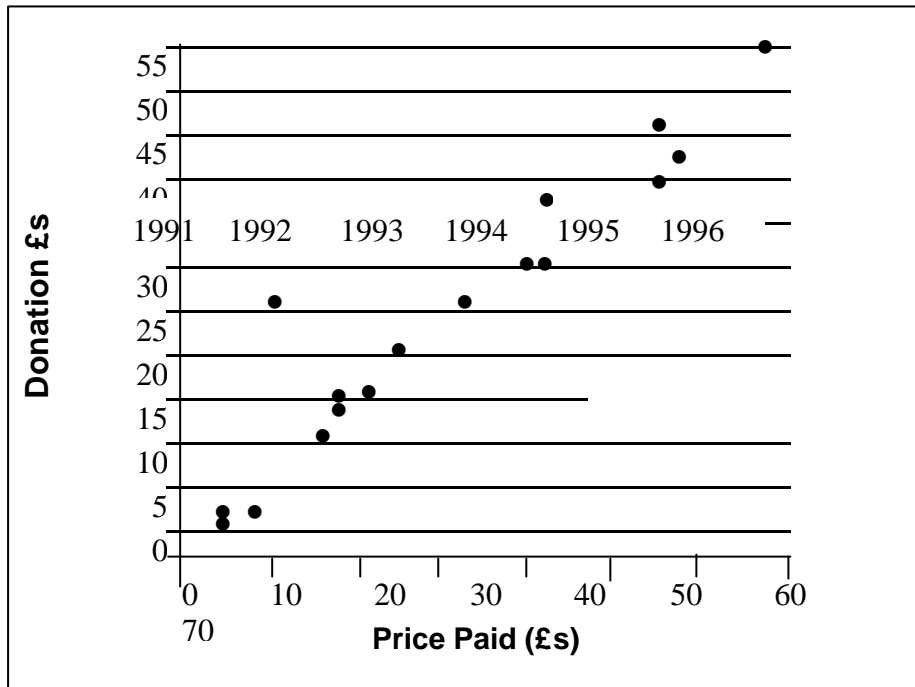
**The line graph:**

used to show changes in things over time (i.e. increases, decreases). Multiple line graphs can show changes in things in relation to each other. But if different scales are in use for the different factors, make sure this is clear:



### The scatter-gram:

used to show the relationship between two factors. The value of one factor is plotted against the 'x' or horizontal axis, the value of the other against the 'y' or vertical axis, so the co-ordinates of each 'blob' (e.g. 10,25) are made up of (x value, y value) i.e. here (price paid, donation)



## Using data strategically

### The importance of contextualisation

- As has been seen, turning data into information and then into usable knowledge is about making comparisons in order to put things into context.
- The fact that 'research shows that in 1996, 5.8% of the adult population in the North had a propensity to attend classical music performances' is at best interesting.
- But consider the power this fact gains if:

It is related to and compared with other regions:

<b>Proportion of the adult population claiming a propensity to attend Classical Music in 1996 (by region)</b>	
<b>Region</b>	<b>% of adults who say they visit</b>
GB	12.1
North	5.8
Yorkshire and Humberside	8.5
East and West Midlands	11.5
South East/East Anglia	15.1
Greater London	18.0
South West	14.8
North West	8.8
Wales	8.6
Scotland	8.8

Source: NTC Regional Marketing Pocket Book (1997) after BMRB (1996)

Or shown as part of a time series:

<b>Proportion of adults attending Classical Music - by year</b>			
<b>Region/Year</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>
GB	12.2	12.0	12.1
North	7.0	6.9	5.8

Source: NTC Region Marketing Pocket Books (1995, 1996 & 1997) after BMRB (1994, 1995 & 1996)

### **Aggregate descriptive statistics**

- In order 'to see the wood for the trees' it can be useful - if not essential - to reduce the data into a manageable form.
- This is generally done by summarising it in such a way that it provides aggregate descriptive statistics.
- There are a variety of techniques for doing this, of which only three of the simplest (and most useful) will be discussed here.

### **The aggregated total:**

the totals for a particular variable for a given activity over a specified period (e.g. total attendances at exhibitions over a given number of years, total number of events within a given number of seasons etc).

## The arithmetic mean (or 'average'):

- Averages are one figure or statistic which summarises the overall flavour or centre of gravity of a dataset (and thus are referred to by statisticians as 'measure of central tendency' or measures of location').
- There are a number of different 'averages'. i.e. The 'mode' is the most frequently occurring value, whilst the 'median' is the middle value in the entire data set.
- The arithmetic mean (which most people mean when they talk about averages) is found by the calculation:

$$\frac{\sum(x)}{n}$$

(i.e. The sum of all the different values of thing being recorded (x), divided by the number of values being considered (n)).

## The Index:

- Index numbers are a variation on the percentage.
- They allow comparisons of one item from a set of data with the **whole** data set by expressing it as a percentage of an overall basis for comparison (the index's "**base**"). They thus enable the comparison to be presented by way of a single figure.
- Because index numbers represent data by comparing one observation with an overall base for comparison, they have a variety of uses e.g.:
  - Comparison of individual purchasing behaviour  
**vs**
  - Average purchasing behaviour for all customers on the database.
  - Number of attendees with a particular classification  
**vs**
  - Total number of attendees in catchment area with the same classification.
  - Local prevalence of a social factor  
**vs**
  - Prevalence of that factor regionally or nationally.
- Remember an index is generally calculated as:

$$\frac{\text{Individual instance}}{\text{The base for comparison}} \times 100$$

- Consequently, if the behaviour of the individual instance is at the same level as the base for comparison, the relevant index will = 100.

- If it is twice as much as the basis for comparison, the index will = 200.
- And if it is half as much as the basis for comparison, the index will = 50.

### Using indexes with published data

- As part of your strategic analysis you might wish to use indexes to evaluate your organisation's immediate environment against regional or national comparators.
- Sources of such data include NTC Publication's Geodemographic Pocket Book and Regional Marketing Pocket Book, and the Office for National Statistics's Regional Trends.

For instance:

#### 1. Using TGI Data

BMRB TGI data republished in the Geodemographic pocket book reveals the following fascinating information in the form of indexes...

- The data for 1994 shows that the proportion of adults in Tyne & Wear who visit Licensed Clubs at least once a week is 20.9%. The proportion of adults visiting Licensed Clubs weekly across the whole of Great Britain is 13.0%. Hence compared to the Country as a whole, the propensity of adults in Tyne & Wear to visit Licensed Clubs at least weekly produces a comparative index of:

$$\frac{20.9}{13.0} \times 100 = 160.$$

- Firstly, then, it can be said that adults in Tyne & Wear have a tendency to visit Licensed Clubs, which is 60% higher than Great Britain as a whole. Secondly, by performing the calculation for the six selected combinations:

#### The propensity of Adults in Tyne & Wear to attend Licensed Clubs compared with five other conurbations.

Conurbation	Index (GB = 100)
Greater London	65
Greater Manchester	124
Merseyside	123
South Yorkshire	126
<b>Tyne &amp; Wear</b>	<b>160</b>
West Midlands	109

Source: NTC Geodemographic Pocket Book, 1995  
Data c/o TGI / BMRB International 1994

It can be seen that, of these six, Tyne & Wear has the highest relative propensity for adults to attend Licensed Clubs.

## 2. Applying indexes to 'raw' published data

- Bear in mind indexes can be used to compare data where you believe a comparison may be valid or informative. You can either obtain other people's indexes or build your own using 'raw' data.
- This can often surface points of striking strategic interest. The only limits are the available data, your ingenuity, and what would be useful or meaningful.
- e.g. Imagine that the arts organisation based in the Borough of Thamesdown wanted to compare the concentration of their local population with that for Wiltshire as a whole and of the whole of Great Britain.
- Regional Trends gives the following data for 1994:

Area	Persons per sq. km
Kennet	77
North Wiltshire	155
Salisbury	110
Thamesdown	754
West Wiltshire	213
<b>Wiltshire Overall</b>	<b>169</b>
<b>United Kingdom</b>	<b>242</b>

- The organisations decide to try the comparison by way of two indexes. The first comparing the various districts with Wiltshire as a whole, the second comparing the districts and Wiltshire with the UK overall:

Area	Persons Per sq. km	Index compared with Wiltshire	Index compared with UK
Kennet	77	46	32
North Wiltshire	155	92	64
Salisbury	110	65	45
Thamesdown	754	446	312
West Wiltshire	213	126	88
<b>Wiltshire Overall</b>	<b>169</b>	<b>100</b>	<b>70</b>
<b>United Kingdom</b>	<b>242</b>	<b>143</b>	<b>100</b>

- Note that both indexes tell the same story in a slightly different way. The issue now is which version is most useful for the organisations' purposes.

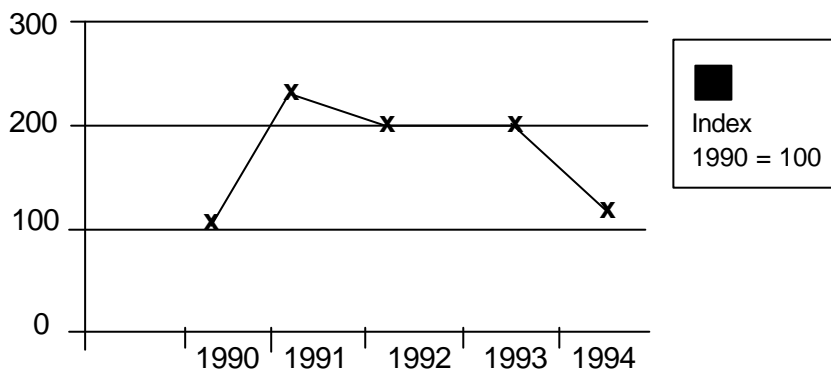
### A special use of index numbers: making comparisons across time

- You can use one year as the base for comparison, and set the value under consideration to 100. Other years can then be interpreted in relation to that year.

#### Theatre Royal, Eastshire - Sales to people in IP14 1990-1994

Year	Tickets purchased	Index (1990 = 100)
1990	1,264	100.00
1991	2,906	229.91
1992	2,513	198.81
1993	2,499	197.71
1994	1,434	113.45

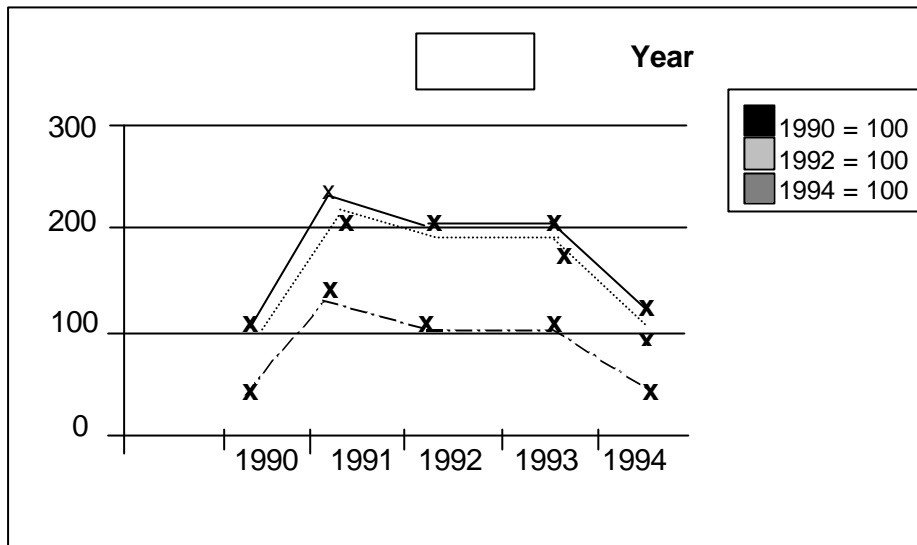
#### Index of sales to IP14 1990 – 1994



- Note how a line chart is used here to demonstrate the changes in the index. Generally line charts should be used to show such changes in a variable and not to provide a snapshot of different variables at one moment in time when a bar chart would be more appropriate.

## Dangers of time-based index numbers

- Remember, the resulting values depend upon which year you set as equal to 100:



- When comparing data sets beware of being misled by **index convergence**.
- If you set the same year to 100 in two different data sets, it is inevitable they will appear to converge on that year!

## One further special use of indexes for strategic analysis: The retail price index

- Whether it's despite or due to the Government's efforts, inflation is still with us. As such it is kind of economic constant.
- One of the effects of price inflation is to denude the relative purchasing power of currency. The actual amount of 'stuff' a pound buys today is likely to be less than it bought ten years ago.
- As part of your Strategic Analysis you may wish to consider financial aspects of the operation (e.g. prices charged, size of budget, level of funding etc.).
- One way of making a comparison is to look at these areas in terms of the real purchasing power at the times to which they apply (what economists term 'in real terms' as opposed to 'in terms of currently prevailing prices or 'current prices').
- Here the Retail Price Index, published by the Government can be useful. It gives an index to the current level of prices compared to a base of price levels as they were in January 1987 (i.e. Jan 1987 = 100).
- RPI can be used to calculate the rate of inflation between two points in time:
- The RPI at January 1989 = 111
- The RPI at January 1990 = 119.5

- Thus the rate of inflation between the two years is calculated as:

$$\frac{(\text{New period's RPI} - \text{Old period's RPI})}{\text{Old Periods RPI}} \times 100$$

$$\text{i.e. } \frac{119.5 - 111}{111} \times 100 = 7.7\%$$

- The RPI can also be used to adjust monetary figures for one year to the same prices or purchasing value of money of a previous one.
- RPI at April 1993 was 140.6.
- RPI at April 1995 was 149.0.
- So inflation over the intervening period was  $(149-140.6)/140.6 \times 100\% = 5.97\%$ .
- This means that prices in April 1995 were equivalent to April 1993 prices  $\times 105.97/100$ .
- To restate the April 1995 prices in terms of their real purchasing power at April 1993 all we need to do is use the RPI inflation figure to deflate the 1995 prices:

$$\text{i.e. } 1995 \text{ prices stated in 1993 terms} = \frac{1995 \text{ price}}{105.97} \times 100$$

or stated generally; the purchasing power of a sum expressed in terms of a previous year =

$$\frac{\text{today's price}}{\text{index for inflation increase since the year being used as a base for comparison}} \times 100$$

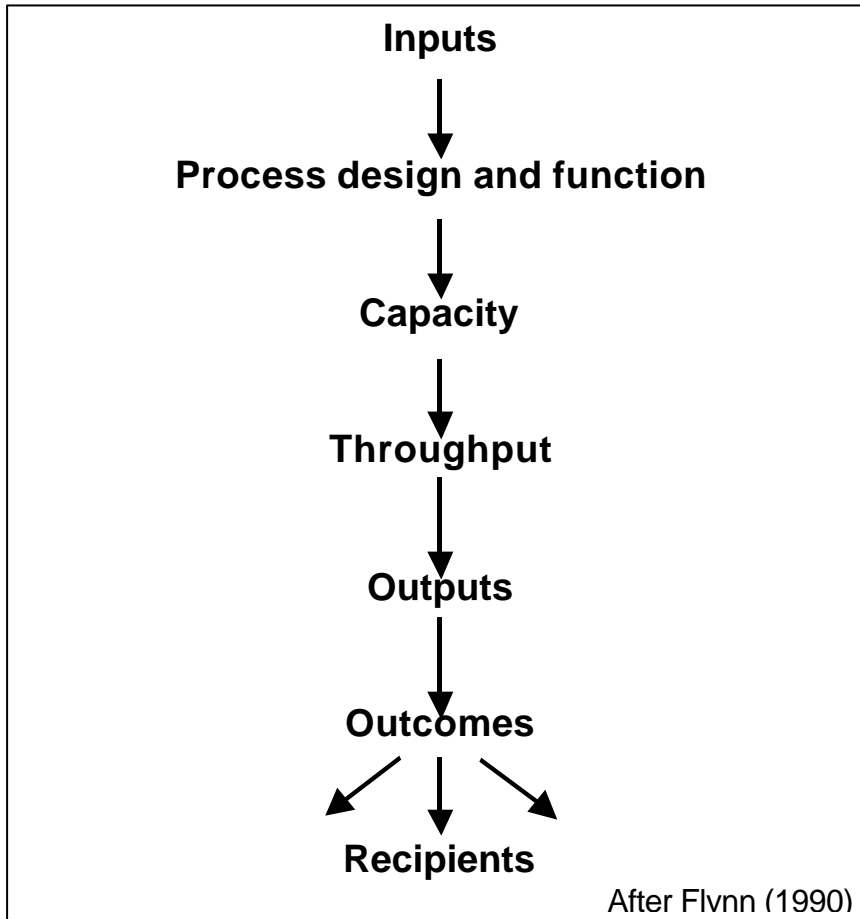
- Thus assume an arts centre is concerned to show that its prices have gone down in real terms from April 1993 to April 1995.
- The price charged for admission in 1995 was £5.50.
- The price charged for admission in 1993 was £5.25.
- The 1995 price re-expressed at 1993 prices =

$$\frac{£5.50}{105.97} \times 100 = £5.19$$

- Hence it can be argued that the real change in price (considered in terms of 1993 prices) is actually  $5.19 - 5.25 = 0.06$  pence. That is 1995 prices are actually 6 pence lower in real terms than they were in 1993.

## Performance indicators

- Aggregate comparative statistics providing some indication of performance built upon the combination of various 'process' elements.



Based on:

- absolute levels of particular elements (e.g. number of operations performed, number of pupils taught, number of performances given);
  - ratios between elements (e.g. inputs: outputs, outputs: process duration, outputs: capacity).
  - ratios between the parts of components (e.g. fixed costs: marginal costs).
- Therefore potentially allow comparisons:
    - Between organisations (the league table as a pseudo - market force?);
    - Of one organisation's performance over time;
    - Between sectors and settings.

## Performance indicators - some issues for the cultural/public sector and NFPs

- These are Not for Profit translations of commercial financial ratios (e.g. ROCI - Return on Capital Investment) as means for measuring goal achievement.
  - However, NB implicit problems of comparison (after Flynn (1990)):
    - Variability in raw materials: social class and other variables;
    - Difference between inputs (e.g. controlled by management vs no control possible);
    - Intermediate outputs - the consequences of inadvertent under utilisation of capacity;
    - The relevance of outputs to the measurement of goal achievement;
    - The difficulty of quantifying outcomes.
  - Pls for a specific service can change as a result of circumstances, which have little to do with the provision of the service. (e.g. increase in input costs).
  - Setting national targets tends to encourage work towards the mean, not excellence.
  - Pls may not indicate performance if key variables are beyond the organisation's control.
  - Pls don't 'speak for themselves'; they have to be interpreted.
  - Many Pls are over simplistic.
  - Few of the available indicators focus on customer satisfaction. Morgan & Murgatroyd (1994)
  - The most important source documents for the ratios which follow are:
    - A) the Organisation's Balance Sheet - which shows its overall assets at a particular point in time
- And
- B) the annual Profit and Loss Account - which shows income and expenditure over the period of the preceding year.

The main features of each are as follows:

## A. The Balance Sheet

This is comprised of the following:

Current assets (inventories, trade debtors, cash)

Fixed assets (tangibles - land, equipment etc, long-term investments)

Liabilities (Ordinary funds - shares, reserves; Current liabilities -creditors, short-term loans; Long -term loans - mortgages, debentures, etc.)

## B. The Profit and Loss Account

Typically this comprises details of:

Operating income

Cost of Sales

Gross Profit

Administration and other costs

Trading profit

Interest received

Profit

Taxation

Dividends

Retained profit

According to Cole (1997) the most important ratios to feature in Strategic discussions will include most if not all of the following:

1. Return on Investment (ROI) - this is the universal concept for assessing the viability of a business. The way in which it is measured varies, but two useful measures are ROTA (Return on Total Assets) and ROE/ROSC (Return on Equity/Return on Shareholders' Capital). These can be summarised as follows:

a) **Return on Total Assets** =  $\frac{\text{Profit before interest and tax}}{\text{Total assets}} \times 100\%$

ROTA – measures the rate of return before (tax and interest) earned by the total assets of a company, and is a useful indication of the **efficiency** of use of those assets, because it is based on three main operating variables - total revenue, total costs and assets employed. Firms are usually looking for an average return of about 15%, and anything over 18% would be regarded as very satisfactory.

$$\text{b) Return on Equity/Return} = \frac{\text{Profit after tax}}{\text{On Shareholders' Capital Net Worth}} \times 100\%$$

This is probably the most widely used ratio in business finance. It measures the absolute return to the shareholders for their investment. Net worth comprises the Ordinary Fund (ordinary shares, capital reserves and revenue reserves). It can also be measured by subtracting total liabilities from total assets. A large company is likely to look for a return of some 30%; a small company might expect about 18%, and any company earning a return of less than 10% is in danger of failure. A healthy ROE/ROC leads to a high share price and is likely to attract new funds, which in turn provide opportunities for further growth and profit increases.

$$2. \text{ Return on Capital Employed} = \frac{\text{Profit before tax}}{\text{Capital Employed}} \times 100\%$$

This measures the return from the Capital Employed in the business by taking pre - tax profits as a percentage of the combined capital of the Ordinary Fund (share - holders' capital) plus Long-term loans. ROCE indicates the efficiency of the use of the long-term funds available to the business.

$$3. \text{ Profit margin/Margin on Sales} = \frac{\text{Profit before Interest \& Tax}}{\text{Sales}} \times 100\%$$

This is often called the net profit margin. A profitable company would be looking for a return something in excess of 10%. If the margin on sales is multiplied by the value of Sales divided by the Total Assets, the result figure produces the Return on Total Assets referred to in (1) above.

$$4. \text{ Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

This ratio simply compares Current Assets with Current Liabilities, and is a favourite with banks. As a result of at least 1.0 would be looked for, but most companies would expect a ratio of about 1.3 times.

$$5. \text{ Gearing ratio (Leverage)} = \frac{\text{Short \& Long-term Debts}}{\text{Capital Employed}}$$

This refers to the extent to which a business is relying on external sources of funds. A business, which is highly geared, is operating on a high proportion of external borrowing. The term 'leverage' is used in the United States.

$$6. \text{ Quick ratio/Acid test} = \frac{\text{Current Assets - Inventories (stocks)}}{\text{Capital Employed}}$$

This is a short-term liquidity ratio. Only a strongly performing business will produce a figure of 1.0; the majority will end up with a figure of less than 1.0 times.

7. **Earnings per share** = 
$$\frac{\text{Profit after Tax}}{\text{No. Of Ordinary shares issued}}$$

(Not overly relevant to the arts industry/NFP organisations) This is one of the most widely sought features of company performance (expressed in pence), and the year on year changes for any one business are important indicators of how well it is doing. The EpS is not helpful for inter-firm comparisons because the number and denomination of shares varies between companies, and it is difficult to compare like with like - especially in the arts.

8. **Price/earnings ratio** = 
$$\frac{\text{Market price per share}}{\text{Earnings per share}}$$

(Again not really relevant for many Arts Organisations/NFP sector) This ratio is dictated not by the firm's performance directly, but by the market's view of the attractiveness of the business. That is to say it is **investors** who determine the price-earnings ratio. If for example a business has a market price per share of 250 pence and is earning 20 pence per share, it has a P/E ratio of 12.5.

9. **Market to Book ratio** = 
$$\frac{\text{Market capitalisation}}{\text{Total Ordinary Funds}}$$

(Again of questionable relevance to most Arts organisations/NFP sector) It is derived from the worth of the company's shares in terms of their current market price per share multiplied by the total number of shares, which gives the market capitalisation. This sum is then divided by the total ordinary funds (ordinary shares plus capital and revenue reserves) to give a ratio of around 1.0 times - greater if the company is valued highly by the investing public, or less if perceived as unsatisfactory.

## **Managerial Performance Indicators**

According to Torkiltsden (1994 pp 321-322) all potential managers should be aware of Performance Indicators as they - "represent a direct or indirect method of whether the centre is achieving a good level of performance, and will include both quality and quantity indicators. In many respects, these indicators will provide the management with the necessary information to determine whether the centre is being managed effectively."

Torkiltsden writes about the importance of Performance Indicators to the Leisure Manager and thus many of his assumptions may be found to be relevant to the Arts Manager, due to the nature of the products and the organisations' funding structures.

- Performance indicators (according to Torkiltsden) fall into the following categories:
  1. **input indicators;**
  2. **output indicators;**
  3. **efficiency indicators;**
  4. **effectiveness indicators;**
  5. **programme indicators**

## 1. INPUT INDICATORS

(for a multi-purpose arts/community centre)

- (i) **Finance** - Gross expenditure costs  
Net expenditure costs  
Variable operating costs  
Staff costs  
Energy Costs  
Other variables/costs  
(supplies, maintenance, equipment)  
Fixed Costs
  
- (ii) **Facilities** - Main Theatre  
Studio Theatre  
Main Art Gallery  
Secondary Gallery Space  
Art Studios  
Cinema  
Dance Studios  
Bar and catering area
  
- (iii) **Staff** - Number of staff employed  
Qualifications  
Training

## 2. OUTPUT INDICATORS

The local authorities that use output indicators have tended to rely on total attendances as the indication of the level of output of a service. This quantitative measure, however, as a sole indicator, has its limitations and should not be confused with the number of users. For example if an Arts Centre has 300 000 admissions a year, and if on average every user visits the centre 50 times a year, then the number of users (i.e. separate individuals) is 6000 which will probably represent around 5% or less of the catchment population. Therefore to obtain an accurate picture of the centre's performance it is necessary to obtain a greater range of indicators.

A further output indicator is level of utilisation. That is the amount of space and time sold, which is generally represented as a percentage of the capacity of the facility. This method of assessing a centre's performance is one of the performance indicators for assessing facilities of an Arts Centre e.g. Dance studio time / classes / seeing a theatre show. It should be stressed that the sale of such facilities is very much a perishable commodity and cannot be resold the following day. In regard to facilities such as cinemas – the total admissions based on a weekly, monthly, quarterly and annual attendance levels is a more meaningful indicator.

Although we have previously stated that the net operating cost is an input indicator (i.e. gross expenditure less gross income), the income generated is in itself an important output indicator. It would therefore appear that output performance indicators are:

- (i) **Income generated** - total income;  
break-down of income by types of user, facilities, service, activities;  
membership;  
hire of equipment;  
sale of goods;  
rents;  
hire of charges;  
course fees;  
special events;  
bar and catering;  
sponsorship;  
grants;  
donations.
- (ii) **Admissions** - total;  
facilities used;  
activities participated;  
nature of participation - casual, club, course etc;  
user category - junior, adult, OAP, etc.
- (iii) **User Numbers** total individual users.
- (iv) **Level of usage** level of utilisation as % of total capacity of facilities such as:  
cinema, theatre;  
total users of specific facilities such as,  
jazz dance classes,  
violin lessons, ceramics courses

### 3. EFFICIENCY INDICATORS

At a time of economic constraint, it is more important than ever that the service is managed as efficiently as possible. Efficiency, in this context, is defined as the optimum use of resources; that is the facilities are utilised to (or approaching) their optimum, the staff are used to generate the highest level of productivity, while the financial resources are used to generate the maximum 'output' returns. Efficiency can therefore be measured by means of ratios between inputs and outputs. E.g. Total income: Operational Costs - is an important ratio and is commonly known as the 'Recovery Rate'.

Other possible ratios include:

1. **Total Income: Staff Costs**

2. **Staff Costs: Operating Costs (gross expenditure) (less loan charges and central establishment charges).**

3. **Net Operations Costs = Subsidy per Attendance**  
**Total Attendances**

**4. Total Income: Staff numbers (FTE)**

**5.  $\frac{\text{Gross Profit of Bar/Catering}}{\text{Cost of Sales}} \times 100$**

**6. Variable Costs: Operating Costs (gross expenditure) (less loan charges and central establishment charges).**

**7. Administration effectiveness =  $\frac{\text{Cost of administration}}{\text{Sales}} \times 100\%$**

This is one of a number of managerial ratios which some organisations employ to test their efficiency in different aspects of their operations (e.g. administration costs, labour costs, etc.). This example takes administration costs as a percentage of sales, and is likely to be helpful to senior management when analysing trends in administration costs over a period of years.

For many of these ratios, there are national norms which can be calculated from CIPFA publications (e.g. Chartered Institute of Public Finance and Accountancy (1989), *Leisure and Recreation Statistics 198 1990 Estimates*, CIPFA Statistical Information Service.), and these can provide valuable guidelines to the level of performance of a centre.

**4. EFFECTIVENESS INDICATORS**

Although effectiveness is usually defined in management terms as the degree to which an organisation fulfils its objectives, it is also associated in an arts management environment with providing the right service at the right place, and at the right time – in other words, *a service that meets the needs of the different sections of the community*.

Ideally, in such circumstances, the user profile of the arts centre should match that of the neighbourhood surrounding the centre. It is therefore desirable that a record of the different types of users be maintained. Much of this can be obtained if a centre or arts venue is using a computerised entry system that registers different categories of users – e.g. adult, junior, gender, OAP and unemployed. This should, however, be supplemented by undertaking a user survey at least bi-annually. Apart from obtaining the user profile, the survey could also be used to determine information relating to the catchment area of the facility, frequency of visits, activity participated, etc. , together with more intangible indicators such as satisfaction and level of attraction.

The effective indicators can include the following:

**(i) Agreed aims, objectives and targets.**

**(ii) User Profile:**

- age**
- gender**
- occupation**
- resident**
- use by target groups, e.g. disabled/ disadvantaged**

- (iii) Frequency of visit (indication of attraction).**
- (iv) Catchment area.**
- (v) Level of penetration within catchment area.**

## **5. PROGRAMME INDICATORS**

An important aspect of the service specification is that which relates to the programme content. Although it is neither an input nor output, it does involve effort, and because it is one of the main managerial functions, it merits a category of its own. Indeed, the programme should be the practical application of the facility's philosophy for use.

The programme indicators could include:

- (i) Range of activities offered.**
- (ii) Availability of casual opportunities.**
- (iii) Courses - range of activities  
level of ability.**
- (iv) Centre clubs.**
- (v) Activities specifically for target groups.**
- (vi) New initiatives.**

## **Creating performance indicators for arts and cultural organisations**

- Key issues in selecting P.I.'s on the basis of:
  - relevance to goals
  - validity of the measure as an indicator of performance e.g. :
  - purpose to which it will be put (both intended and unintended).
- Some arts P.I.'s in current use:
  - Subsidy per use (e.g. seat sold, visitor etc).
  - Subsidy per event.
  - Spend per capita of catchment area.
  - Funding per capita of catchment area.
  - Average ticket yield. (income / attendance).

- Average attendance.
- Reach percentage:  $\frac{\text{No of attenders}}{\text{Available population}} \times 100$
- Self generated income: grant income.
- ~ £ marketing spend per £ income generated.

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