The Importance of Project Management

New research into the role of project management in a modern developed economy - like the UK

~ By Dr Malcolm Wheatley BSc (Econ), MA, MBA, PhD

Project management as a management discipline underpins much economic activity. In industries as diverse as pharmaceuticals, software and aerospace, projects drive business. And in the public sector, it is effective project management that translates politicians’ promises of new roads, schools and hospitals into gleaming new constructions that improve everyday life.

So you’d imagine that it would be possible to place some sort of figure on the importance of project management to the UK economy. How much GDP (Gross Domestic Product) does it drive? In which sectors of the economy? And as the economy evolves, how fast is project management’s prominence increasing?

Think again. As a conversation with the UK’s Office of National Statistics reveals, the official Input-Output tables that record and analyse the makeup of economic activity within the UK go into no finer detail than at the level of individual industries. We know that the GDP of the UK economy in 2002 amounted to some £1044bn, up 5% from £994bn the year before. We know which industries contributed the most to that overall GDP figure, and which contributed least. But we know nothing - at least in terms of officially tabulated government statistics - about the extent of project management’s contribution to that GDP.

So what exactly is the contribution of project management to a modern developed economy, like the UK’s?

A Statistic - and a Caution

American researchers employed by the Project Management Institute have an answer - of sorts. On the basis of data released by the Bureau of Economic Analysis, part of the US Department of Commerce, they estimated in 2001 that the US public and private sectors combined spend some $2.3trn on projects every year, an amount equivalent to a quarter of America’s GDP. Construction, R&D (Research and Development), software development, organisational change, IT systems - add it all together and that’s the price tag. Extrapolating further, they estimated that project-related spending accounted for almost $10trn of the world’s global GDP.

On that basis, given the UK GDP of £1044bn in 2002 (the latest year for which figures are available), project-related expenditure of a quarter of GDP yields a GDP figure of £261bn. This, of course, relies on the UK economy being structurally similar enough to the American economy for the American estimate of
project management’s contribution to GDP to hold true. While there are undoubted differences between the two economies, they are unlikely to be significant enough to materially affect the extrapolated UK figure. A 10% deviation either way, for example, would indicate a range of (say) £235bn to £287bn

There is, however, one slight problem to address when considering project management vis-à-vis GDP estimates. And it is here that a note of caution must be injected.

Take two hypothetical projects, identical in all respects except the calibre of their project management. One project comes in on budget, having used the planned resources. The other dramatically exceeds its budget, using far more resources than planned. Which has the greater contribution to GDP? The latter. Overtime payments, additional employees, replacements for materials wasted or otherwise found faulty - perversely, these additional expenditures contribute positively to GDP, not negatively.

As a result, while GDP-based estimates of the value of project management to the UK economy are useful starting points, a more rounded insight into the value of project management to the UK economy must come from more qualitative data.

**Project Management and Innovation**

Almost by definition, innovation relies on project management. Irrespective of whether the innovation concerns a new product, or a new process, or indeed a contribution to pure science, better project management, on the whole, will see a successful outcome reached more quickly, having consumed fewer resources.

And innovation is important to the UK economy. As a succession of reports from the UK government’s Department of Trade and Industry (DTI) has highlighted over the years, innovative businesses are more successful, and innovative industries grow faster, export more, are more competitive, more productive, and have a better long-term future.

Stating the benefits of innovation is one thing - defining innovation itself, or quantifying it, is another. As successive generations of statisticians have found, the measurement of innovation is almost as slippery a concept as the measurement of project management.

An interesting table (see Table 1) from the current DTI Innovation Report breaks down the innovation carried out by a number of manufacturing industries based on one widely used proxy measure - R&D spending, commonly reported by companies in their annual accounts.

Even so, this almost certainly understates the true level of innovation activity, especially with respect to process innovation. The engineering departments and process improvement groups of manufacturing companies routinely make process improvements that go unrecorded as R&D, for example.
<table>
<thead>
<tr>
<th>Industry</th>
<th>R&amp;D as percentage of value added (average 1991-2000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical &amp; optical</td>
<td>6.6</td>
</tr>
<tr>
<td>of which computers and office equipment</td>
<td>5.5</td>
</tr>
<tr>
<td>of which communication equipment, TV, radio</td>
<td>12.9</td>
</tr>
<tr>
<td>Chemicals &amp; man-made fibres</td>
<td>18.5</td>
</tr>
<tr>
<td>of which pharmaceuticals</td>
<td>44.2</td>
</tr>
<tr>
<td>Plastic and rubber products</td>
<td>0.8</td>
</tr>
<tr>
<td>Food, drink and tobacco</td>
<td>1.1</td>
</tr>
<tr>
<td>Textiles</td>
<td>0.4</td>
</tr>
<tr>
<td>Manufacturing total/average</td>
<td>7.0</td>
</tr>
</tbody>
</table>


Overall, 7% of value added in manufacturing industry is project-based innovation. More, of course, taking into account the argument that some process-oriented improvement projects are overlooked. While some industries fall far below this level - such as textiles, where just 0.4% of value added takes the form of innovation - others massively exceed it: the pharmaceutical industry, for example, sees 44.2% of value added generated through innovation. Put another way, almost half the value added by the industry owes its immediate provenance to projects - a figure sure to increase once the planning, construction and commission of the new equipment and facilities required to bring successful innovations to market is accounted for.

Another government publication makes the case even more tellingly: Productivity in the UK: 3 - The Regional Dimension (published by HM Treasury, November 2001). The report emphasises that the invention and application of new technologies, products and production processes is a key driver of productivity growth, which has accounted for no less than two-thirds of overall UK economic growth over the past 50 years. Without effective project management - even using the more primitive project management methodologies of yesteryear - this would not have been possible.

Project management also underpins the regional economies. It is the speed and efficiency with which innovations are spread and adapted that differentiate regional performance, concludes the report. GDP per head, for example, is 40% lower in the North East than in London. But under-performing regions have significant barriers in adapting and absorbing innovations, in particular lacking the highly skilled workers and productive firms that invest in R&D. High levels of innovation in a local economy have a multiplier effect in stimulating a more enterprising indigenous business base and a more enterprising society in the wider sense. In the UK overall, the report finds, there is a strong statistical correlation between the regional pattern of R&D (both public and private sector) and regional economic performance. Again, it is project management that underpins that R&D, and manages the process of turning ideas into actionable innovations.
Project Management and Project-intensive Industries

Every business undertakes projects of some sort. But some undertake far more than others. Similarly, some industries are more project-intensive than others. Aerospace and defence, for example, are extremely project-intensive, working for years on long-term contracts or development projects that will eventually bring forth a new jet aircraft, missile system, ship or piece of electronic wizardry. Likewise, almost by definition, construction is another industry that exhibits a high degree of project activity.

Food, retailing and textiles, on the other hand, are less project-intensive. Even so, care must be taken. While corner shops may not be prone to launching new projects, the major supermarkets are: each year sees a number of new distribution depots, IT systems, retail outlets and the like.

The corner shop should not be overlooked altogether, though. Taken together, the UK’s 3.7 million SMEs (Subject Matter Experts) account for approximately 40% of the UK’s GDP, and have combined sales revenues of £1trn. Employing over 12 million people in the UK, they account for 85% of the 2.3 million extra jobs created by new businesses in the period 1995-99, and over 50% of the 3.5 million jobs gained from expansion of existing firms over the same period.

Impressive though these figures are, it is highly probable that enhanced project management capabilities would have seen an even greater transformation. That, in essence, is the scale of the opportunity facing the UK, and indeed many other developed economies.

Richard Pharro, managing director of accreditation and examination body APMG (Accrediting Professional Managers Globally), which commissioned this research, comments: “At last we are beginning to see research which proves how important project management is to the UK and global economies. All kinds and sizes of organisations in both the public and private sectors should sit up and take note of this because without well-trained and capable project managers the percentage of GDP spent through projects is inflated due to many exceeding their budget through poor management. Furthermore, considering the impact that successful project management has on fast-growing SMEs, we hope to see more project managers getting the recognition they deserve in helping to make these organisations even more innovative and successful.”

Further information about project management skills and training is available from the APM Group on +44 (0)1494 452450 or visit www.apmgroup.co.uk

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