IT Spending – Assessing 'Value for Money' with the Assistance of Function Point Analysis Techniques

INTRODUCTION

Kerry Carroll discusses the application of function point analysis when used in conjunction with financial analysis and its benefits to financial managers.

PROFILE

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ARTICLE

The question of whether a company is receiving 'value for money' from its level of IT spending on new developments, enhancements or maintenance of existing software applications is a difficult issue for financial managers to advise upon. Not only are they not likely to understand the complexities associated with the underlying activity, but they also do not have access to a universally accepted methodology that provides them with a ready answer.

A consequence is that reporting tends to focus around input information such as the level of spend, the number of resources engaged and the supporting overheads. Movements in IT spend between periods and against budgets are the prime reported financial data. Various measurements might flow from these depending on the organisation (e.g. hourly cost, number of changes and cost thereof, etc.), however these do not allow for the size of the output to be measured.
A methodology that measures the functional size of software and that can be used in conjunction with financial analysis is Function Point Analysis (FPA). FPA is a functional sizing technique that was developed in the late 1970s and is now in use by many companies worldwide. FPA measures the size of software from a user's perspective. FPA can be used in measuring individual parcels of development or enhancement work activity, as well as determining the size of software applications. An international group (the International Function Point Users Group – IFPUG) publishes a set of counting rules and holds examinations and awards accreditation to qualified function point counters. IFPUG FPA is not without its critics who express concerns over the accuracy and reliability of the conclusions that can be drawn given interpretative aspects of the counting procedures. Its applicability to adequately measure new generation environments and real-time embedded software is also often questioned.

Nevertheless, the use of FPA has continued to gain prominence with reasons being outsourced contracts being constructed that build in related financial obligations based on FPA and the lack of acceptable alternative measures. The result has been a benefit to financial managers who now have another analytical tool at their disposal . The source data for undertaking analysis can include:

1. Price per function point produced arising from development or enhancement activity.
2. The number of function points produced per person per month of activity.
3. Price per function point maintained for existing software applications.

This base information, when supported with relevant financial data, can be used by financial managers and corporations in a number of ways for example:

- Benchmarking/comparisons between individual software development and enhancement activities both within the company and externally.
- Identifying areas for process improvement/innovation and establishing productivity targets based on an improvement in the existing $/FP and FP/month.
- Identifying the best performing development and enhancement activities on a $/FP or FP/month basis and seeking an understanding why this is the case and how it can be replicated going forward.
- Integrating FPA into the job estimating process. Estimates of the function points to be produced from the projected expenditure can be compared to similar activities and assessments made of the reasonableness of the estimates from both the seller's and buyer's viewpoint.

- Inclusion in strategic planning activities, e.g. identifying which applications have high $/FP maintenance costs and so could be potential candidates for early replacement by enhanced systems; which IT platforms enable the lowest-priced function points to be produced; assisting in budgeting, etc.

The use of FPA as a financial analysis tool requires technical and financial personnel to work together to establish appropriate records and processes. The key is matching of the data, i.e. the relevant hours and cost for a parcel of work to the boundary of the function point activity. Accurate cut-offs are therefore essential to ensure the output is sound.

While they have limitations, function points can form the basis to assist in assessing the value of a company's IT expenditure and so are a valuable tool for financial managers. It is interesting to note that a subject in the 'Business Information Management' CPA Program of Study covers function points.
