MAXIMISING VALUE

Abstract

What is the point of owning property assets if all they do is cost you money?
Unfortunately many owners of multiple assets don't really know which properties are costing them money and which properties are making them money. If they do, they tend to know that information based on a single point in time, or they look at their balance sheet.
Understanding the current condition of assets along with the lifecycle cost profile of component replacement is one key step to understanding profit and loss across time.
Developing the profile of component replacements into Asset Management Plans and Procurement Strategies is the first step to driving value. If you don't know the quantum of what you need to procure over the next five years you can't possibly have the most cost effective procurement strategy.

Undertaking relational analysis between property investment information and income and demand for the same assets is the next key step in driving value from assets. The expertise lies in understanding which assets to continue to invest in with confidence, which assets to divest and the most cost effective time to divest.

Through a thorough understanding of the asset portfolio, it is possible to deliver more for less and even prevent making the same mistakes twice. This paper is based on lessons learnt over the last 20 years of asset investment planning.

1. Introduction

Often at times of low interest rates and low inflation organisations use the lower cost of capital to invest in new property assets. This can lead to organisations acquiring new assets in waves, that match the economic cycles (Reserve Bank of Australia 2019, 1-4).

This means that the repair and maintenance needs for the asset portfolio follow different investment profiles. Each asset in the portfolio will follow a similar path, but with differing start dates.
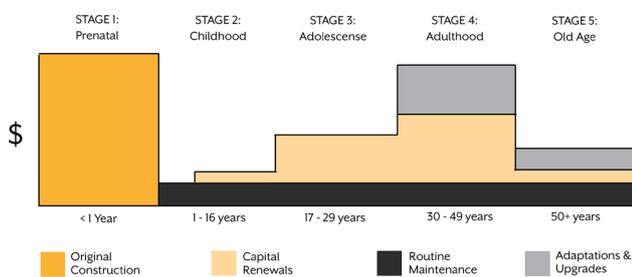

Figure 1: Model to indicate the quantum of capital renewal costs at different stages in a facility life cycle Source: Figure from Asset Insights (2019)

How can a business drive value from existing asset portfolios? How can an organisation deliver more for less and ensure that the budget is being spent in the right place at the right time?

2. Budgeting

Dr Penny Burns drafted an article in 2000 entitled "If 2% is the Answer, What's the Question?" (Burns 2000).

The paper looks at the various different methods that organisations use to set their maintenance budgets, how they define their overall maintenance liabilities and the differences in approach. Budgets purely based on overall percentages of gross replacement value do not provide detail on the allocation of funding to manage risk or technical funding priority and provides no feedback on the overall asset maintenance liability.

This approach could lead to over investment in some assets, uneconomic extended life, higher than necessary maintenance standards or failure to invest in key assets.

Many organisations still allocate financial resources as 'last year plus inflation', use a generic formula for example the Sherman Dergis formula or use a defined percentage of value or $/M2; the process adopted is an insight into the asset management maturity of the organisation.

These methods all enable a financial budget to be set, but unfortunately none provides any cognisance of the fact that the portfolio is comprised of numerous assets at different stages of the asset lifecycle (see Figure 1) or provide direction on what the priority is for the available funding. This style of budgeting also limits the organisations ability to benchmark actual lifecycle replacement versus planned lifecycle assumptions.

3. Lifecycle Cost Management

Property assets usually have a minimum overall design life of 50-60 years. Each component of the asset has a 'normal' design life, often defined by the material or product supplier with the caveat of correct installation, commissioning, general wear and tear. This normal design life should be the same as the depreciation life.

Capturing the lifecycle and matching that with a replacement cost enables forward projection of replacement for each component within each asset across a portfolio. This sets the benchmark against which actual performance can be assessed. Add to this data regarding servicing cost and frequency, along with repair costs and the total cost of maintenance of the asset can be established.

Over the last 20 years the two common drivers that trigger the capture, collection and analysis of lifecycle data linked to forward maintenance planning are finance and regulation, or both.

Many organisations start to capture the data so that they can substantiate borrowing to banks and show that their 30-year business plan does not breach loan covenants, whilst maintaining the asset in good condition.

Some banks already look at asset management systems as part of their loan management due diligence, as lending criteria tightens, banks no longer rely on simple percentage calculations to set maintenance budgets.

4. Procurement Strategies

Understanding the quantum of work (number of components over a period of time) enables an asset owner to offer to market the most comprehensive programme of work.

Asset owners who do not hold lifecycle data to enable quantification of work are often found tendering one off piecemeal projects, rather than programmes of work/replacement.

CASE STUDY ONE
Using lifecycle data an asset owner calculated the need to replace 3,500 gas water heaters in their assets over a five-year period. Regulation stated that these gas water heaters also needed to be serviced every year. Existing practice would entail the procurement of replacement in areas/groups of assets at circa 50-100 units at a time, using the lifecycle data the organisation procured replacement of 3,500 over a 5-year term.

The overall cost of replacement reduced by 38% against previ-

ous historic costs – over $3.3m savings against the maintenance plan for this one component.

The component was purchased directly from the manufacturer, was a higher specification than previously used (~$0.75m added value) and included a 5-year parts warranty as part of the supply cost (estimated to save ~$1.85m in parts across the 5-year warranty term). The saving from material procurement was circa $2.1m, with an additional $2.6m in added value.

The labour was procured as install only, a mind-shift for the sub-contract market at the time. The contractors (two were appointed) were able to secure a rolling 5-year program for a team of installers, installing 7 systems per week, with no downtime, this secured a 35% saving in the cost of installation – saving $1.2m in labour.

Over the 5-year term contractors KPI's were measured against each other to provide an element of competition, as a result defects were reduced to zero operational defects. As teams remained consistent, they progressed along a learning curve and became more efficient.

5. Asset Viability

Asset viability combines both income (or usage) and expenditure, alongside other risks and drivers that are often key market or stakeholder drivers.

CASE STUDY TWO
The data below is from an organisation that owns just over 18,500 assets. The assets have a 30-year net present value (NPV) of $335m.

Just by working through a strategy for the 830 assets with a negative NPV (bottom left, figure 2) the organisation can save $3m, not taking into account any capital receipt from an asset sale.

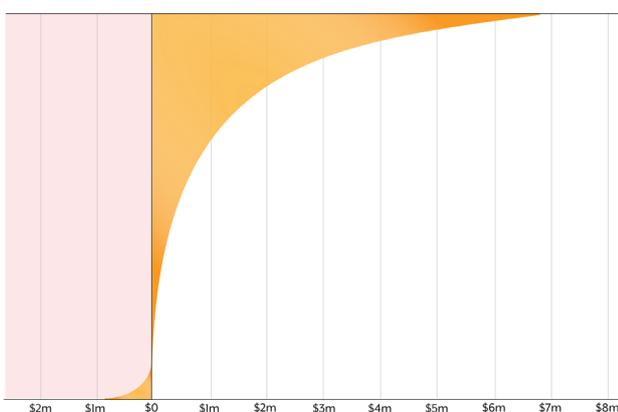**PORTFOLIO NPV - 18,500 ASSETS**

Figure 2: Actual Net Present Values for a portfolio of 18,500 assets

The ability to drill down into the data that produces the NPV to see where the peaks and troughs in cash-flow occur enables an asset management strategy to become more agile.

It enables an organisation to establish appropriate maintenance regimes and allocate asset groups to those regimes; short life maintenance (run to fail prior to disposal or demolition), continued planned investment (until the next review), or variations of the same; as well as identifying the timescale for the next review or option appraisal for the portfolio as a whole or a specific asset/asset groups.

The figure below shows the NPV for a single asset and the capex maintenance for the asset. The viability in the first ten years is questionable, years 10-20 are positive, however, post year 20 the property is not viable. The reality is that the property isn't viable across its lifespan, it has an over-all negative NPV (total column), so unless there is a reason to retain the asset in the short term this asset should undergo an option appraisal process before further investment is made.
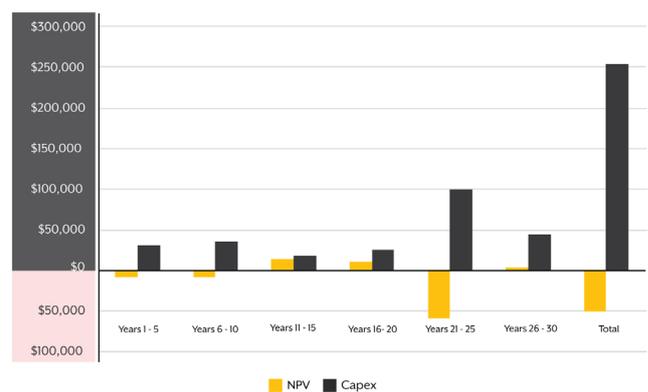
SINGLE ASSET

Figure 3: Net Present Value and Capex for a single asset

Again, the above only looks at cashflow. Whilst high maintenance costs can be an indicator of poor viability, so is lower than anticipated income; the above analysis does not identify all key risks and drivers that creates the above NPV position.

Using relational data analysis, the data from the NPV calculation can be linked to external data sources to generate layers of analysis – the data from figures 2 and 3 are presented with other relational factors in figure 4 below – in this instance a weighted asset sustainability indicator using risk data regarding void periods, void frequency and demand for the asset type and location.

This analysis enables both the identification of assets (top right quartile) and liabilities (bottom left quartile), it also provides prioritisation for asset that require option analysis solutions, that will improve the overall financial position of the business.

Note: only properties in the top right quadrant should be auto-matically contained within the procurement programmes detailed in section 4. Assets in other groups should only be added to programmed works following option analysis.

References

 "Sherman-Dergis Formula." n.d. Asset Insights. Accessed 6th January, 2019. http://www.assetinsights.net/Glossary/G_Sherman_Dergis_Formula.html.

Burns, Penny. 2000. "If 2% is the Answer, What's the Question?" AMQ International, Strategic Asset Management (39): 1-2.

Reserve Bank of Australia. The Transmission of Monetary Policy. Accessed 6th January, 2019. https://www.rba.gov.au/education/resources/explainers/pdf/the-transmission-of-monetary-policy.pdf.
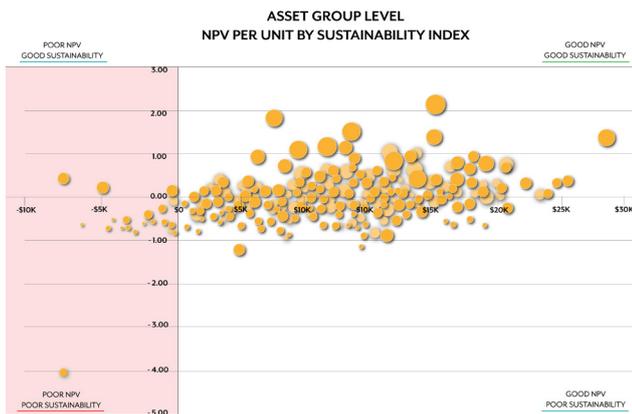
Figure 4: Net Present Value mapped against key business risks

6. Conclusion

If you don't know the quantum of work that you need to deliver, that is the number of components, the cost of replacement and the timescales for replacement, then you are unlikely to be driving maximum value from your property assets through procurement.

If you don't know your assets from your liabilities, then you may well be investing in liabilities rather than assets, and therefore not maximising value from your property assets.

Collect data regarding your assets, apply lifecycle costing to assets and components and use the data wisely, it could save you millions.

For more information or for comment on any of the findings within this report you can contact the Collective8 team via email at contact@collectiveight.com