



Cost control and labour management

The twin disciplines for HVAC success



The principal product of the heating, ventilation and air conditioning (HVAC) industry is the provision of skilled labour services in the installation, repair and maintenance of heating and air-conditioning fixtures and fittings.

It's labour that enables contractors to install, service and maintain a wide range of heating and air conditioning equipment in everything from houses and apartment complexes to commercial premises. Regardless of whether the organisation is construction or service-oriented, how labour is assigned to scheduled projects and how it is managed is crucial.

The HVAC industry has a high level of labour intensity. The ratio of labour costs to capital depreciation charges for an industry is indicative of its relative capital/labour intensity of construction, as this shows the share of industry revenue absorbed by labour inputs relative to capital inputs. Industry wage costs absorb an estimated 20% of industry revenue, and depreciation charges account for an estimated 1% of annual industry revenue.

“ This indicates a labour costs to depreciation ratio of around 20:1, or around four times the average for the general economy. ” *

In fact, for most HVAC contractors, labour accounts for more than fifty per cent of the total cost of a project. Therefore, good labour management can make the difference between a project over-run and successful, on-time delivery.

The other critical focus for HVAC contractors is cost control. Overheads must be minimised. Expenditure and invoicing should occur according to tightly defined schedules. Project managers need to know with certainty and accuracy all costs that have been committed and those that are yet to be incurred. These figures need to be available in real time so that actuals for every small step can be easily and quickly compared to the original estimates, allowing any variation to be instantly identified and accounted for.

Breaking it down

One of the best ways to obtain tighter control over projects is to break jobs down into segments according to cost codes. If each code matches a scope of work detailed in the estimate and if your data is compiled in real time, it becomes much easier to track the actual dollars and labour hours involved.

A material problem

Recently, a multi-storey HVAC project received a weekly report which highlighted a 30 per cent increase in labour costs over the course of a single week. Concerned at the blow-out, the contractor used the cost codes to check which portion of the project had been affected and then checked with staff to try to determine the cause of the problem.

What he found was that the building's general contractor had interrupted the flow of activity by placing material on the floor that the HVAC contractors were working on that week. Staff had been forced to change their movements to make their way around the material and this had slowed their work.

With the cause of the blow-out identified, the contractor was able to raise the issue, rectify the problem and get the budget back on track the following week, minimising the financial impact.

Although this kind of detail can be captured and reported manually it is time consuming and will, in all probability, still incur delays before data is available for management review. Automated software systems that capture cost and labour data at the time it is committed make the process much faster, ensuring daily or weekly feedback on progress. In this way, project managers can always know within days if the actual work fails to match the original estimate.

Managing money

Another important element of cost control is money management. Getting funds in from clients promptly and not committing to expenses until necessary can help to reduce the need for lines of credit and will save a contractor money.

To encourage speedy payment from clients you need to understand when to bill and how much can be billed. This calls for precision and accuracy in your figures, and certainty that the portion of work you are billing for has been completed. To assist the client, you'll need an accurate schedule of values backed by as much detail as possible. An automated cost management system can help here, providing the proof you need to ensure on-time payment with copies of documentation, receipts and reports confirming expenses and completion of tasks.



The differing needs of service and construction

Despite the importance of labour and cost control, there are a number of additional, specific challenges facing HVAC contractors. The business needs – and therefore processes – of a service and maintenance oriented business are very different to those of a contractor specialising in construction.

Construction projects are big, lasting from six months to many years and it's here that breaking down costs is critical. They need to be tracked and managed for the duration of the project which can be a huge task.

Service businesses on the other hand deal with work orders, maintenance plans, parts and monthly or quarterly bills. These contractors require solid service and work order systems. Because service projects are quite likely to involve some construction elements, they also need the support of good job costing. Moreover, to maintain visibility of activity across the company and to aid in comprehensive client reporting, the three systems must be capable of integrating and working together.

Understand the demands of your industry

A service-focused HVAC organisation was using software designed for the photocopier service industry. The software addressed many of its core business needs including financial control, job costing and service management. As the company grew however, the software seemed less ideal.

It didn't cater for key elements of a HVAC service business. Photocopier servicing is carried out based on the number of copies that have been processed while HVAC servicing looks at how long equipment has been running. HVAC places a much larger emphasis on the knowledge of individual service people, the ability to fix rather than replace things, and the equipment service history.

The company realised that not all service systems are equal and not all are right for the task. It eventually replaced the system with one designed especially for the HVAC industry.

Customers want easy insights too

One of the changes within the industry in recent years has been the depth of information sought by customers. They want contractors to keep them fully informed of work that has been done and of activity that is yet to occur. They want to be able to identify trends, forecasts and cost analyses. If the client has fifty pieces of equipment wrapped up in a single maintenance contract, they are going to want to know which pieces of equipment are costing them the most money. They need predictive information such as when equipment can be expected to have outlived its useful life and when it needs to be replaced.

To solve this, some contractors now offer clients 24/7 access to data via a client portal whereby the client can access copies of correspondence, reports, invoices, service records and other data. This information helps the client better understand the work being done by the HVAC contractor and provides valuable data for the budgeting cycle. Increasingly this kind of client value-add is becoming a competitive differentiator for contractors.

Tailored system support

A few decades ago there were few, if any systems, available to support the HVAC industry's specific needs. Unable to automate processes, contractors did what they knew best – they added staff to handle increasing workloads and complexity. This added to their ongoing cost base but it was the only option.

Lack of systems also meant delays and limited access to business data. Project managers would have to wait until milestones were reached before reviewing budgets. Some would manually compile invoices and scraps of paper to work out costs. Others manipulated spreadsheets or tried to extract reports from unwieldy IT systems. It was a much more difficult environment and one that often resulted in expensive delays.

Today contractors and project managers have the benefit of far more sophisticated software solutions. There are generic ERP [enterprise resource planning] systems designed to provide a base level of business automation across all industries; customised contracting software packages that have an emphasis on areas such as time and labour management; and then there are solutions designed especially for the HVAC industry.



Whatever software you choose, the key is to select functionality that matches your business requirements. Typically this will include:

- field service
- cost management
- field mobility
- project management
- equipment management
- customer service and sales
- financials and
- service and support.

The ideal software should have broad capabilities that allow you to see and manage all aspects of the business. Data should be entered once and automatically delivered where it needs to go, so that it can be used to the fullest to drive better decisions and higher margins. With the right system, you can eliminate delays, shrink overhead and get the most from your staff, equipment and assets.

Software for the HVAC industry, by the HVAC industry

One of the leading HVAC business management software solutions is WennSoft, a system that grew from the operations department of a U.S. Midwestern mechanical contractor. The company required an effective software solution that would help it to manage large construction related projects and its service operations. Unable to find the right fit, the company developed its own software and in 1989, the WennSoft solutions were implemented as a way of enhancing and expanding reporting, allowing proactive management processes, improving efficiencies and reducing overall costs.

By 1995, interest from other contractors was such that WennSoft was incorporated as its own entity. In 2012, WennSoft remains a privately held company, led by many of the same management team that grew out of the HVAC industry. It employs more than one hundred staff and boasts in excess of 1,600 customers in 26 countries.

Locally, many of Australia's leading HVAC contractors rely on WennSoft to provide exceptional cost control, work order management and assets management.

The technology

WennSoft is a Microsoft partner with ERP gold and ISV silver competencies. Its solutions leverage and add to the strengths of Microsoft Dynamics, delivering HVAC-specific applications and functionality.

Professional Advantage: WennSoft Australian Partner of the Year

Professional Advantage and WennSoft have been working together to deliver WennSoft's HVAC-solutions to the Australian market since 1999. In 2011, the strength of the partnership saw Professional Advantage named WennSoft's "Australian Partner of the Year." The award cited Professional Advantage's commitment to WennSoft Solutions, its consistency in business and outstanding service to its customers.

About Professional Advantage:

Professional Advantage focuses on providing technology and services that enable high-performance workplaces and organisations. Professional Advantage was established in 1989 and today employs more than 230 people in Sydney, Melbourne, Brisbane, Perth, London and Fargo, USA. The company is the largest provider of leading brand global business management systems, such as financial management, ERP, CRM, retail, business intelligence, business process management and portal solutions to midsize organisations in Australia, supporting over 800 clients nationally. Its multi-product offering is complemented by its development, systems integration, consulting, training, and support services. Professional Advantage is the winner of many business and vendor awards and is a member of the Microsoft President's Club 2011.

*Source: Ibis World Industry Report E4233 Air Conditioning and Health Services in Australia. March 2010

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