How do you calculate the Return on Investment (ROI) on an ERP System?

Traditionally a ROI calculation on software implementation is based on the knowledge that a business will see instant tangible benefits from the new software as soon as it is installed. However, as an ERP solution usually means an improvement in business processes and procedures this can take some time to become measurable or even apparent. Therefore whilst it is easier to calculate the cost of an ERP solution, it is difficult to put a figure on the expected efficiencies and business improvements, as several gains from installing and ERP are vague and difficult to measure.

This does not mean however that is isn’t possible. It’s not only possible but imperative and this analysis is a crucial part of the decision making process. A properly done ROI investigation builds a business case for the implementation.

If we think about it, an ERP solution uses information from various sources within an organisation and manipulates the raw data into actionable information. Once an ERP solution has been implemented you will have a much clearer picture of where the business is at and with the click of a mouse button you will see accounts receivable, work in progress, daily sales, stock levels and a multitude of other performance measures in real time. Access to accurate information, and key reports, ensures confidence in making key business decisions. Calculating a ROI is about applying a value to these increased efficiencies and processes.

The tangible benefits of an ERP system are typically:

- Reduced levels of stock on hand, and work in progress brought about by the ability to plan better and be in control.
- Reduced materials cost, less wastage through improved procurement and accounts payable processes
- Reduced double entry and errors through managing processes in one unified system.
- A reduction in labour costs due to better allocation of resources
- Increase efficiencies in production or manufacturing due to more accurate management of equipment
As well as the obvious tangible benefits, the following benefits will also occur:

- Greater ability to increase gross margin through better analysis of item or job margin
- Integration of multiple systems resulting in efficiency and transparency
- The reduction of potential errors and improved accuracy of inventory data
- Better-quality customer service,
- Shorter order to Shipment cycle
- Formation of standardised procedures
- Improved accounting control and tighter sales cycle.
- The ability to compare quote to actuals

Calculating ROI means applying a dollar figure to the value of correcting inefficiencies. There is no typical method of calculation of ROI for an ERP solution but a strategic analysis is achievable. The intangible benefits may seem too vague to calculate, but these reasons are important for creating an overall business case.

The First step is to define the cost of the various known components of the project such as consulting fees, license fees, modification and implementation cost, hardware cost, support plan etc. This should be factored in to arrive at Total Cost of Ownership (TCO) over the specified period.

The second step is the more challenging part, which is to guesstimate (put a value to) the expected benefits over a period of time. To arrive at these figures, there should be discussion with employees and research from various survey reports. The benefits will largely occur from the reduction of stock levels, operational cost, labour costs and improved production. Whereas the last three elements will have a direct impact on profit and loss account, the reduction in stock will cause release of additional cash which can be assigned to a yearly value of saving.
Listed below are industries which will typically have different benefits from an ERP system.

**Manufacturing businesses will typically see improvements in the following areas**
- Processes
- Stock control
- Procurement
- Production scheduling

**Wholesaling businesses will typically see improvements in the following areas**
- Stock control
- Foreign exchange
- Pricing / margin

**Professional Services businesses will typically see improvements in the following areas**
- Tracking billable time
- Project management

**Not for Profit organisations will typically see improvements in the following areas**
- Tracking funding and allocation
- Reporting and audit trail
- Processes

**Trades services will typically see improvements in the following areas**
- Job and project costing
- Labour and materials allocation
- Job costing
In order to better figure out the actual cost of inefficient processes, we use a Time Savings Calculator. The calculator enables the user to list the following:

- Task,
- The reason for the task
- Time to complete the task in minutes
- How many times per day the task is done
- Quantity done per month
- Time per Month
- Hourly Rate

It then calculates the potential savings of eliminating that inefficiency.

For example: How much time is wasted on double entry?
50 orders per day - 5 mins per order - Cost per hour - Cost per month - Cost per year

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<th>Time to Complete</th>
<th>Qty per Day</th>
<th>Qty per Month</th>
<th>Time per Month</th>
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Conclusion

Performing a ROI for an ERP system can be challenging particularly in terms of unquantifiable figures, however it will give you an idea of the benefits or otherwise of implementing an ERP solution. ROI measurements help in many circumstances and enhance chances of a successful completion of the project.