

Developing Inhouse Vs Off the shelf

- A white paper by Clydebuilt Business Solutions Ltd

Developing In-House versus buying Off the Shelf

A company usually develops in-house either where the issue to be served is trivial or where their requirement is 'seen' internally as complex or unusual – the 'we do things differently' comment.

Ignoring the first and concentrating purely on the complex or unusual, the realization of a software project ranges from the totally in-house development, where the requirement is defined, analyzed, programmed, maintained and developed using the firm's own resources, through to the totally off-the-shelf commercial offering, where you buy and effectively have to work with the package as it comes out of the box. In reality the least likely solutions for logistic software are in those extreme positions.

In many cases there will be a large degree of external involvement in achieving the outcome. External consultants/system analysts/programmers/project managers may be used to deliver a ground-up "in-house" product; while no sophisticated commercial product is likely to be useable without some configuration and tailoring to meet the customer's needs, usually in close co-operation with in-house IT staff although it should also be in cooperation with relevant operational staff.

More accurately the comparison is the relative benefits of Bespoke Software versus those of a Tailored Commercial Package. The crux of the matter comes down to the fact that the core of the Commercial Package will be tried and tested providing a stable basis on which local procedures and processes may be built. This means that even if the specified processes and procedures that augment the core are initially less than required the system can function whilst additional changes are made. It is the combination of this strong, stable and very capable core with the flexibility to tailor and add functionality quickly that characterize the modern commercial logistic software package. By comparison in-house developments can rarely afford to build in additional capabilities that are not immediately required. Unless the lines of development have been correctly identified while developing the system, even minor changes can be slow and costly to deliver.

None of the above touches on the problems of lock-in to external consultants that can follow a bespoke program or the difficulty of changing a system where the original programmers have gone and the level of documentation is inadequate for others to take on the development.

In house development pro's

Gives IT something to do (not diplomatic but probably true)

Cheaper as the IT department is a sunk cost

Have control, not at mercy of software house or other third parties

Where development is of strategic importance, control may be vital

Client can define and get exactly what he thinks he needs.

Built to fit with existing in-house systems - hopefully.

Interface will be familiar - hopefully.

In house development cons

Do you really know what you want? Who is defining the specification?

How quickly do you need it implemented? Are there time constraints?

Do you have people capable of writing it? In-house?

If you bring in outside consultants, how much warehouse experience do they have? What relevant experience do they have? What references can they provide?

De-bugging issues

Not likely to have gain lessons from others' mistakes or benefit from others' good ideas.

System will have little inherent flexibility and scalability.

Can drive firm further down a unique/dead-end development branch and into dependency on a developer.

Modular upgrades unlikely to be available.

Reliance on one department (eggs in one basket?)

Cheaper? (Takes twice as longer and three times the budgeted cost?)

Real Price – Say £40K pa total cost for employing a single developer means that over say a 5 year product life you will pay £200K for ownership. For the same £200K, assuming 20% pa support & license charge, you could buy and maintain a £66K software package. This does not include the opportunity costs of delaying implementation of a solution whilst solution definition, software design, programming, testing and debugging takes place.

Off the Shelf pro's

Tried and test

Why re-invent the wheel?

Can be viewed in operation in similar working environments

The software house will bring experience with them

Short implementation time, measured in weeks

Off the shelf con's

Package could be bloated with unnecessary features yet falls short in some critical areas

Risk of vendor being slow or reluctant to adapt software

There could be potential integration issues with your current systems

Support and maintenance costs are too high

Reliance on one company; eggs in one basket

Looking closer at the Pro's and Con's of each option, it appears that the perceived costs along with specific business functionality are key factors in deciding to go with bespoke development. In reality, the costs quickly mount up, resulting in a fare larger investment than originally thought. The example above illustrates the cost of a single developer; this obviously increases if you employ more people to complete the project in a timely fashion.

We highlighted the scenario of working to a specific business brief that ultimately leads your company down a dead end route. Worst case scenario is that your business objectives and working practices change, before the bespoke development is even complete. Where would that leave your business?

The truth of the matter is that software company's offer off the shelf packages for a reason. The product rarely becomes defunct, as the life blood of the software company is the development of new technologies and internally they invest in research and development to keep their product useful for clients.

A good software vendor should thoroughly analyse your current practice, and make modifications to the 'off the shelf' package where applicable, giving you a solution that truly fits in with your business. Added to this, is the safety in the knowledge that the software package has the flexibility to adapt as your business does – again these developments are standard for the software vendor and cause minimum headache for you and your staff.

Of course in both cases, *caveat emptor* applies, buyer beware and choose your vendor or in- house experts well. Palming that responsibility off to an outsider may cover backs but will not guarantee a successful result.