Why companies struggle with business software: IKEA vs. Amazon

Management Outlook

IKEA is a company that has standardization down to a fine art. Amazon, on the other hand, constantly seeks the boundaries of innovation. This is reflected in the software that these companies use. While IKEA swears by standard software, Amazon is develops its own systems. So, what is better for your business: make or buy? The truth in this matter, however, is not in the middle...

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Business requirements

Recently, I attended a conference that debated packaged software versus self-made software. Denis Weiland of fulfillment provider Docdata and Frederik Nieuwenhuys of start-up online grocery retailer Picnic both pleaded for self-made software because of their special business requirements. On behalf of Interface, world market leader in floor tiles, Rob Heeres emphasized the benefits of packaged software after previous bad experiences with customized software.

IKEA

IKEA is the perfect example of standardization. The furniture giant has 48 distribution centers in 17 countries that all use the same warehouse management system *Astro* from *Consafe Logistics*. All sites operate according to IKEA's blueprint and there is no room for customization. Every six months, all DCs upgrade to the latest version of the package. IKEA claims it puts 2,500 hours in each upgrade. Yet, that way the software in the 48 DCs remains manageable and technically and functionally up to date. This seems to be a *best practice*.

Amazon

Amazon, however, has developed the software itself. In the blog about my visit to the Amazon fulfillment center, I mentioned features of the Amazon software that you do not normally see in commercial packages. Amazon obviously puts a lot of money and energy in its systems, but that allows the Internet giant to make changes quickly without being dependent on software vendors. This also seems to be a *best practice*.

Ready-made packages

It looks like there are therefore two best practices. Both with a package as well as with self-made software one could manage well. Let us first take a look at packaged software. There is a wide range of ready-made packages on the market for all kinds of purposes. In the past, companies have opted for self-made software because they could not find a suitable package, but nowadays packages have a much better offering. One can set up different procedures through parameters, roles, business rule engines and workflow tools. An additional advantage is that one may continue to adjust processes in this way when future developments or new insights ask for it. Moreover, vendors periodically release new versions of their software
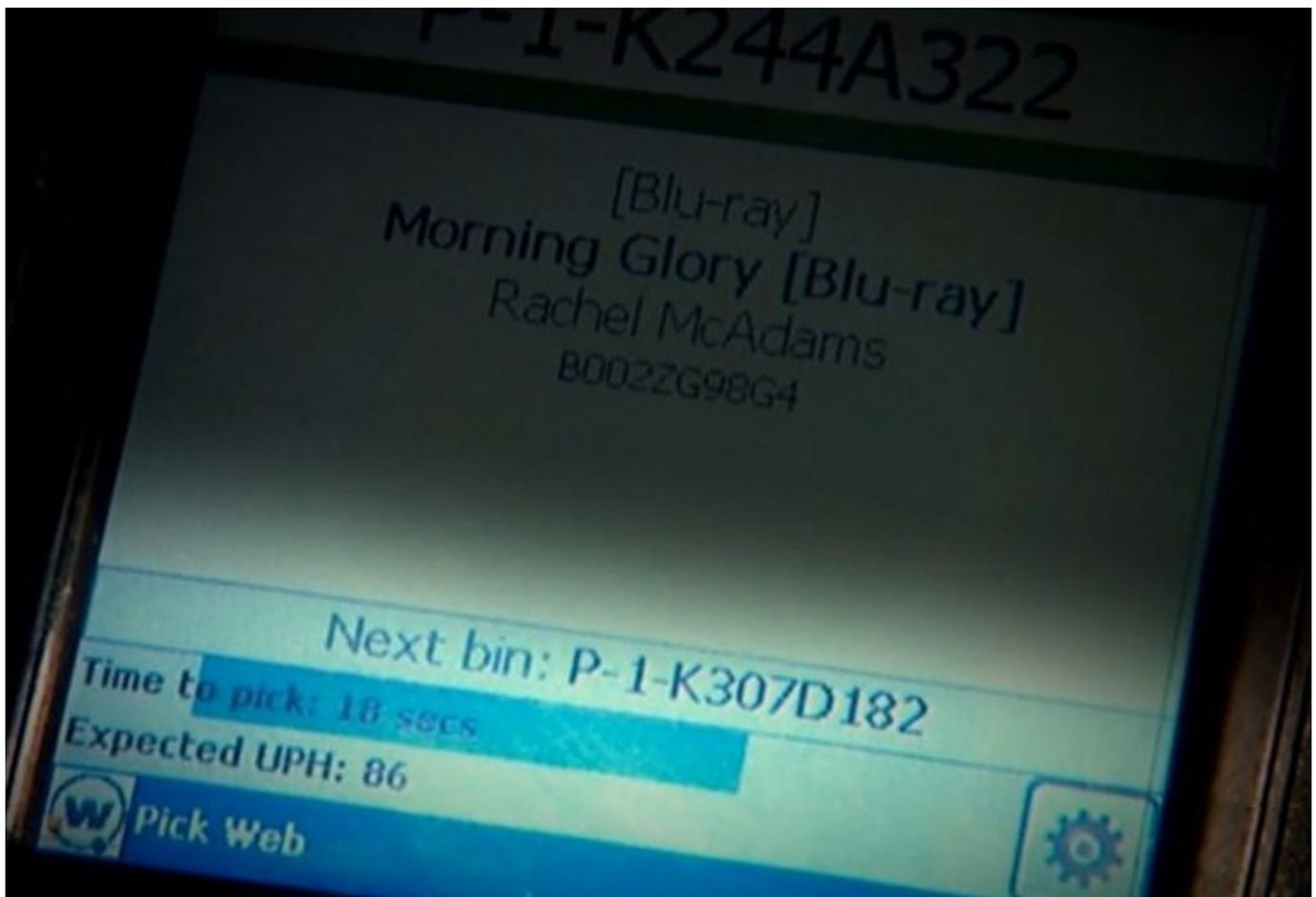
Figuur 1. RF scherm van Amazons zelfgebouwde WMS met uitgebreide productiviteitscijfers.

so that it may stay functionally and technically up-to-date.

Stuck in the middle

So far, no one will object to packaged software. However, the other side of the coin is that companies need to adapt their methods to the capabilities of standard packages. Even though there are many options, it may still happen that what you have in mind is not in the package. Then you need to make concessions or customize the package. And this is where it often goes wrong. Companies are not prepared to make concessions and expand the package with all kinds of enhancements. However, these enhancements are not part of the standard software and therefore not automatically available in future versions. Because of the efforts to link the enhancements to new versions, companies avoid future upgrades. Especially for modern cloud software with frequent updates, this is a major drawback. The result is that the software is aging over time. Restrictions are palpable and making changes becomes more and more difficult and costly. Companies are *stuck in the middle*. They do not have the freedom of self-made software nor the convenience of packaged software. Unfortunately, this *bad practice* is common.

Continuous optimization

Business processes cannot be devised once and then utilized endlessly. Market pressures, changing product ranges, technological advances and new management insights require continuous optimization. To make this possible, one needs flexible software that can easily be modified. Something that IKEA and Amazon have understood well.

Bottlenecks

Where do businesses run into when introducing a package? I distinguish four types of bottlenecks:
- Bad practices
- Unhappy flow
- Touchpoints
- Specials

Bad practices

It may be that a process that you currently use, has become outdated. Since packages combine the practice of many companies, there is a good chance that they hold a better alternative to your "*bad practice*". Look critically at your own processes and compare the options in the package.

Unhappy flow

The happy flow is the process as it takes place every day when all goes well. These processes should be well supported. In addition, the *unhappy flow* represents the exceptions and problems that one encounters occasionally. The unhappy flow must also be supported by the system, but it need not be done efficiently. Do not create customizations for it. Preferably, put your energy in preventing these exceptions.

Touchpoints

A system has all kinds of *touchpoints* to the outside world. Systems communicate with other business systems and systems of other parties in the supply chain. All systems send different messages with different structures, and different information. To make systems understand each other, many adjustments are needed. A best practice, especially if there are many systems in the game, is to do these translations by an integration platform. Such a platform links systems and translates incoming and outgoing messages to the format of the respective systems. So each system may continue to communicate in its own in-house format and customizations are superfluous. If still exceptions remain, then it is wise to sit down and talk with your supply chain partners.

Specials

What remains are the *specials*. The things that are unique and essential for your business. These components must of course be supported well by the system and customizations are necessary.

Make or buy?

At the beginning I asked the question what is better, make or buy? The answer is simple. If the *specials* prevail as with Amazon, then you choose self-made software. Otherwise, choose a package like IKEA. The important thing is that you retain the flexibility to optimize your processes at any time. A [study among large logistics service providers](#) shows that they are retiring their highly customized outdated software packages as well as their self-made software. Apparently, it is also complex to stay flexible with self-made software in the long term. Modern software packages clearly are their preferred choice.

Bol.com

Which option best suits your company depends on whether you are IKEA or Amazon. This is not a foregone conclusion as shown by the fact that Dutch online player [Bol.com](#) has chosen *Reflex WMS* by French supplier *Hardis* for its new fulfillment center. Despite that the Ahold

subsidiary compares itself to Amazon in many ways, it did not opt for self-made software nor for the system of its current fulfillment partner Docdata which also remains active in the new operation.

Think dare do!

More is needed to be successful with self-made software in the long term. Nieuwenhuys of Picnic stated that the internal motto of his company is: think, dare, do! First analysis, then try it out and if it works, scale up quickly. That fits with self-made software. Side note is that two directors of Picnic founded software company Fredhopper in the past. The development of modern software is in their genes and that is a requirement if you start to DIY.

Jeroen van den Berg Consulting is a consultancy with specialisation on the cutting edge of commerce and logistics in a changing world. For more information you may contact us at the address below.

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