WHITEPAPER

How to apply Kanban thinking to your tech business

And how it helps both your business and financial processes



HARMONY PSA

Table of contents

1 INTRODUCTION 3

2 WHAT IS KANBAN 3

How Kanban works 4

The 4 core principles of Kanban 4

3 APPLYING KANBAN TO YOUR BUSINESS 5

The effects of bottleneck 5

4 APPLYING KANBAN TO YOUR FINANCIAL MANAGEMENT 6

Introduction

Employing an agile process with sprints and scrums is great for initial build projects or overlapping major releases. But for steady continuous-improvement based development interspersed with new features, Kanban is easier – because it's more flexible and more reactive. This white paper explains how and why Kanban is a great tool for not just your business but also your financial management processes.

1. What is Kanban

Kanban is a system of process management that was created by Toyota in Japan in the late 1940s. The car manufacturer uncovered what it felt was a more effective way to manage its engineering process by looking at how supermarkets managed their stock. While this may seem obvious by today's standards, at the time the thought of managing the flow of inventory not by your vendor's supply, but by your own inventory was little short of revolutionary.

The shops' "just-in-time" delivery process lead Toyota engineers to rethink their methods and devise a new approach – a Kanban system – that would match inventory with demand and achieve higher levels of quality and throughput.

In the simplest terms, what they created was a better system of communication through visual management.

The Japanese word Kanban means "visual signal" or "card", and Toyota line-workers would use an actual card to signal steps in their manufacturing process. The system's highly visual nature allowed teams to communicate more easily about what work needed to be done and when. It also standardized cues and refined processes, which helped to reduce waste and maximize value.

How Kanban works

We've all heard the expression "A picture is worth a thousand words", and this is the principle behind the effectiveness of Kanban – the idea that the brain processes visual information 60,000 times faster than written information. In his book Brain-Based Learning: The New Science of Teaching & Learning Eric Jensen sites two important reasons for this:

1. **40% of all nerve fibers connected to the brain are linked to the retina**
2. **Visual information comprises 90% of the data that comes to our brain, suggesting that our neurological pathways might even prefer pictorial displays over text**

Kanban helps you harness this power by using "sticky notes" on a board to create a "picture" of your work. Seeing how the work flows within your team's process enables you not only to communicate status, but also to create context for the work. Kanban takes information that typically would be communicated via words and turns it into "super digestible" visual bites.

The 4 core principles of Kanban

The success of the Kanban approach hinges on the fundamental assessment that you can't get where you want to go without first knowing where you are.

Kanban is gaining traction as a way to smoothly implement Agile and Lean management methods in tech companies. The visualization that a board presents you with provides an instant and structured overview of your workflow; like an interactive dashboard report. Not only can you see bottlenecks, you can resolve them directly from that board. In effect, this gives you instant process management overview and data access – a very powerful thing.

As much as the Kanban process has been refined since its origins, its core elements have remained rooted in the following principles:

1. Visualize Work
Creating a visual model of your workflow allows you to observe the flow of work moving through your Kanban system. This process leads to increased communication and collaboration.

2. Limit Work in Process
By limiting how much unfinished work is in process, you can reduce the time it takes an item to travel through the Kanban system. You can also avoid problems caused by task switching and reduce the need to constantly reprioritize items.

3. Focus on Flow
By using work-in-process (WIP) limits and developing team-driven policies, you can optimize your Kanban system to improve the smooth flow of work, collect metrics to analyze flow, and get leading indicators of future problems by analyzing the flow of work.

4. Continuous Improvement
Once in place, your Kanban system becomes the cornerstone for continuous improvement. Teams measure their effectiveness by tracking flow, quality, throughput, lead times and more. Experiments and analysis can change the system to improve the team's effectiveness.

2. Applying Kanban to your business

A software development process can be thought of as a pipeline with feature requests entering one end and software emerging from the other end.

Inside the pipeline, there will be some kind of process that could range from an informal ad hoc process to a highly formal phased process. Standalone smartboard software can really help you visualize this and resolve choke points/bottle necks. It can also help allocate resources, ensuring you're managing the distribution of work efficiently.

But it has one major drawback: further bi-directional interfaces to worry about. If the interfaces are not robust, you will need double entry and that's just the same as saying that your boards will be out of date until the next stand-up meeting – obviously this is not a good position to be in.

Taking the development process management tool away from service desk and/or time recording/contract management is going to give you work to do, whatever you may hope.

The effect of bottlenecks

A bottleneck in a pipeline restricts flow. The throughput of the pipeline as a whole is limited to the throughput of the bottleneck. If the testers are only able to test five features per week whereas the developers and analysts have the capacity to produce 10 features per week, the throughput of the pipeline as a whole will only be five features per week because the testers are acting as a bottleneck. If the analysts and developers aren't aware that the testers are the bottleneck, then a backlog of work will begin to pile up in front of the testers. The effect is that lead times go up and inevitably quality suffers as the testers struggle to keep up and start to cut corners.

However, if you know where the bottlenecks are, you can redeploy resources to help relieve them. For example, the analysts could help with testing and the developers could work on test automation. On your Kanban board, the individual cards represent work items as they flow through the development process, which is represented by the columns. The numbers at the top of each column represent the number of cards in each stage of the process. Applying limit thinking to these numbers (representing typical capacity and/or capability levels of the team) allows you to understand and measure the scale of the bottlenecks.

3. Applying Kanban to your financial management

The role of the finance department in a business is to process orders, manage contracts, issue purchase orders, raise invoices, recognize costs and revenue and most importantly, collect and pay out cash.

Some of these activities are ongoing throughout the month while others are critical to completing your month-end. In particular, ensuring a month-end is completed, with everything released and processed is a complex challenge for even quite modest businesses

In accounting and ERP platforms, these process activities span a wide range of different lists, under different menu topics, so making sure you are on top of things is tough and takes a lot of process and system knowledge, plus inevitably a series of check-lists.

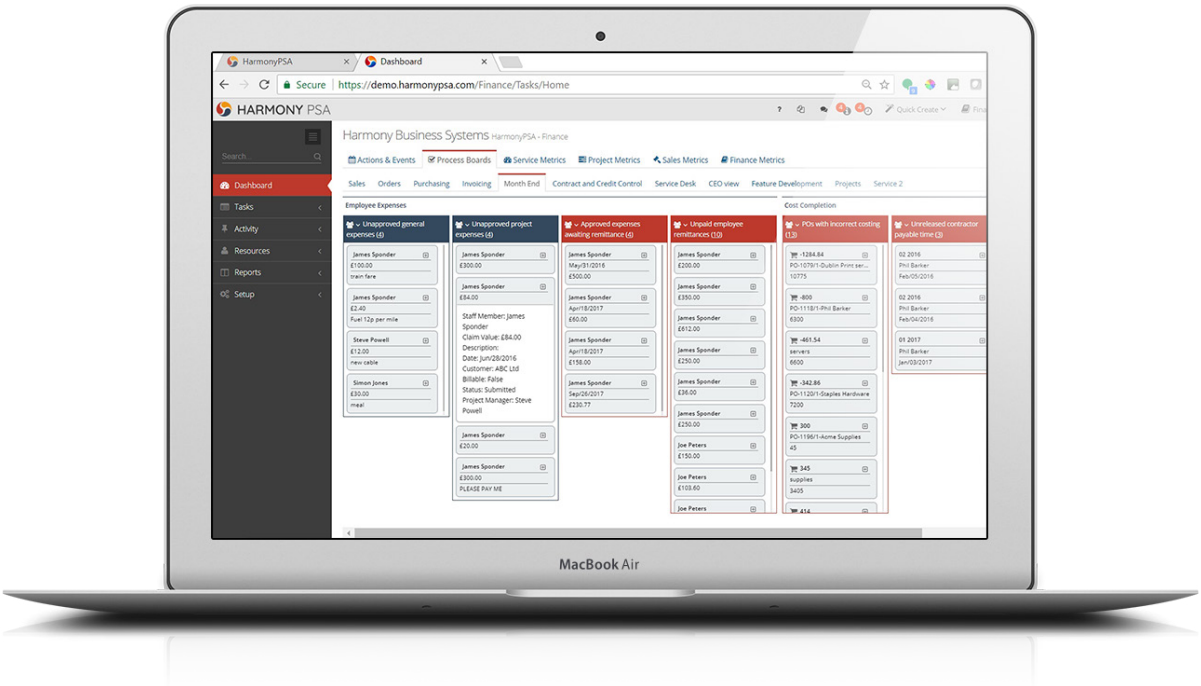
With large businesses, you can have finance staff who are specialists, limiting their coverage and their need to know the full system. But with small to medium enterprises, you will mostly see generalists who need to know everything. With very small organizations, this is most probably the owner on the weekend –someone probably not even trained in accounts.

This can pose a problem as it is finance users who need the most training and knowledge to get a sound grasp of the processes and accounts flows. In many cases, they are not from that discipline and/or are part-time in the role. Once bedded-in this works OK for the common processes, but for exceptional activities (say raising a partial credit note to flatten a part-paid invoice), they will naturally struggle to remember where and how that is done. Or even remember that it must be completed.

Here's a list of how a Kanban approach can help with a number of these areas:

- **Not sure if you have processed all your orders?** Check out the Order Board and it will show you all the items in progress.
- **Want to make sure you have finished invoicing?** Check out the Invoice Board and it will show you every item of business on the way to invoicing so you will never leave things half done.
- **Want to see which teams are at maximum capacity with tickets approaching SLA?** Simple: set your columns by team and check out your new Team Board.
- **Do you work with tickets and/or on projects?** Build yourself a personal work board which sorts your work into status columns.
- **Need to view the testing back-log?** Check out the testing column on the Feature Board.
- **Need a team planning meeting?** Throw the Project Board on the big screen and huddle around it.

Placing all this activity on Kanban boards may not be the whole solution, but it is certainly a great start. With the increased visibility this delivers, your processes will be better and your accounts more accurate. need to implement controls around quote creation and internal approval or you'll soon become swamped.



HARMONY PSA

How Harmony can help

Harmony's process-integrated Kanban capability enables you to visualise your personal workload, across multiple objects and set to flexible deadlines. This process visualisation capability, unique to Harmony, highlights work in a fault-proof and effortless way so that you always stay on top and nothing gets missed. Customisation of these views is simple and fast plus once completed, Harmony maintains the view without double keying or maintenance.

So, while this is great for development or service teams the same approach applies equally well to sales and finance functions and the capability is there to achieve this with ease. No more searching for things that need progressing, Harmony just places them on your board for click-through access and action

Sign up to our newsletter, visit www.harmonypsa.com

© Harmony Business Systems Ltd 2017

For more information email info@harmonypsa.com or call +44 204 327 0460

HARMONY PSA