Help! Our productivity growth is going down. Another four tips to boost your productivity (part 12)

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Belgium is the fourth most productive country in the world, but our productivity growth has been sputtering. In this series we present four practical tips to boost productivity in the office and on the shop floor.

In the first part of this series we discussed the productivity of Belgian companies. Productivity growth in our country has been substandard in recent years, and that's quite strange. Meanwhile, the fourth industrial revolution has been underway for 10 years (proclaimed at the Hannover Messe in 2011), but we notice very little of it in the figures.

In order to support Belgian companies with their productivity improvements, we collected a number of tips that we will publish at regular intervals. These tips are deliberately not aimed at implementing advanced technologies, but on improvements that require little effort and pay off quickly.

Tip 51: Come out of the meeting room, and check out the shop floor

In recent years, the popularity of 'big data', 'data analytics' and 'artificial intelligence' has increased significantly. Data analysis has proven to be very valuable for companies that only have data. Just think of a bank that wants to assess the creditworthiness of a customer. By combining different data sources and smart algorithms, a bank can better assess the risks involved in granting a loan. The more data that can be combined, the better the algorithms become. Imagine if your bank could also listen in on your conversations at home (e.g. via their banking app), the bank would be able to judge even better whether to grant you a loan. This is not likely to ever happen, although it is the bank's wet dream.

The great advantage of production processes is precisely that they are easily observable. A direct observation of a production process gives a richer picture than a data set with a few indicators. By the way, extracting relevant insights from a heap of data is not easy, as the parable of the data scientists shows. A large part of the improvement potential lies in the details of a process, which are not visible in the data. Therefore, go out on the shop floor and observe what is happening. This will give you much more useful inspiration than studying Excel tables or collecting opinions at meetings. Solutions that come out of meetings are often too complex ("we need a new IT system"), while the simple solutions are there for the taking once you observe the processes.

This is not just the case for production processes, but also for office processes. By observing processes, you will notice things that you may be unaware of. For example, we have already seen a few organisations where an office worker prints documents from the ERP system and then scans

them into PDF format so that they can be forwarded by e-mail. In both cases, the employee was not aware that it was possible to send an e-mail with the document directly from the system.

The video below shows how the cycle time of a process was reduced by 4 seconds. This is an example of an improvement that can only be conceived through direct observation on the shop floor. Even if you had connected the machine to an MES system and recorded every cycle time and failure, this improvement could not have been detected in the data. (Note that this video is also an excellent example of Tip 43: Use your head first, not your wallet.)

Accept marketing-cookies to watch this video.

product range

In almost all companies, the product range has been broadened and series reduced. In this way, they hope to boost turnover by satisfying all possible customer requirements. This has often been at the expense of productivity. Smaller series mean more changeovers, more logistics and more design and administrative work. The underlying assumption here is that more choice is better for the customer and that the revenue benefits will ultimately outweigh the additional costs.

In a famous study to test this hypothesis, researchers set up a stand in a shop where consumers could taste jams. Over several days, a range of 24 types of jam was alternated with a selection of six jams. With 24 jams on offer, 60 per cent of passers-by stopped to have a taste and 3 per cent of tasters ended up buying a jar of jam. With an offer of six jams, only 40 per cent of consumers stopped, but 30 per cent bought jams.

This experiment shows that more choice does not always lead to more sales, and that less choice can even increase sales. Too much choice seems to have a paralysing effect. People no longer know what to choose and therefore do not choose. Procter & Gamble put these insights into practice and reduced the number of Head & Shoulders shampoos from 26 to 15. The result: shampoo sales increased by 10 per cent.

Too broad a product range is not only a problem for the customer, but also for your own sales staff. For example, we recently saw a company where the salespeople themselves got lost in the catalogue and were no longer able to map customer queries onto the product range. As a result, the salespeople began to ask for customisation from the already overworked engineering department. The result: long lead times for drawing up offers and substandard sales.

So think carefully about the offer you want to put on the market. Do not try to satisfy every possible whim. Just because a salesman uses the argument 'the customer is asking for this', does not mean that you should do the same. (No, the customer is not always right). Drawing up the optimal offer to

meet the chosen needs is the product manager's job, not that of the sales department.

If you still have a wide range, make sure you have a clear decision logic, so that your customer and your sales staff can easily choose the most suitable products. This can save a lot of time and avoid the unnecessary creation of even more specials.

Tip 53: Consider an alternative production process

A leap in productivity is sometimes possible by choosing an alternative production process. An alternative production process can increase productivity by taking less time, combining several steps in a single operation, operating without manpower or relieving bottleneck operations.

At first glance, an alternative production process seems to require a large investment. In the recent past, we have already seen several companies that were able to switch to a new production process with a small investment. Sometimes you have the machines in house but do not use all the possibilities, in other cases it is enough to buy a new generation of consumables or tools. A few examples:

- New low-temperature powder coatings make it possible to lower the oven temperature (a significant energy saving) or to run the coating line faster.
- Cylindrical grinding can sometimes be replaced by hard turning on a lathe. The speed of hard turning is considerably higher.
- A lathe with powered tools can be used to eliminate other operations such as engraving.
- Alternative adhesives can sometimes reduce the pressing time of furniture by 50 per cent.
- Good cooling is essential for machining processes. The use of cryogenic cooling (with nitrogen or CO2) can significantly increase tool productivity and tool life. More information is available here.
- Additive manufacturing can replace several production steps. In some cases, metal parts can be replaced by plastic parts, which makes it possible to use cheap 3D printers. (see also Tip 32)

Do you want more information about alternative production techniques? The Interreg Machining 4.0 project offers support to machining companies looking for alternative production methods.

Tip 54: Use video instructions and QR codes

Writing clearly understandable work instructions can take a lot of time. An alternative is to make short instructional videos. Creating and editing videos has become easy with the introduction of smartphones and all kinds of free video apps (see also Tip 50 on enhancing videos).

The user-friendliness of the video apps also allows less common processes to be well documented. For example, a welder can make a video of a special welding setup for later reference. Of course, you have to make sure that everyone can easily find the videos they have made. You can do this by making QR codes that you link to the instruction videos. An instructional video on how to create QR codes for your videos can be found here. You can easily save the instruction videos on a private channel on YouTube that is only accessible to your employees.

Finally

Do you have any tips to share? Let us know so that we can share them and become more productive together! The best tipster gets a nice gift!

*Click **here** for an overview of the other parts in the series.*

(Source pictures: https://www.pexels.com)

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