

Planning by the numbers

In his 2005 book 'Blink', Malcolm Gladwell describes the process of rapid cognition. This is the capability of the human brain to look at a complex situation and make a decision which instantly feels right. Neuroscientists believe this is more than just gut feeling – it is the brain acting on the sum of the individual's tacit knowledge to reach a fast decision. Tacit knowledge is the sum of the individual's experiences, all the things a person has learnt from a variety of situations. A large amount of information is processed very quickly under rapid cognition, so quickly that it is not possible to ascertain which areas of the brain are involved with photographs of brain activity. It's a good thing we have this capability to take decisions in urgent circumstances. All organisations need experienced individuals and this capability is often needed in rapidly changing operational situations where a fast decision is needed. However, it is an inappropriate way to make decisions in planning projects. In planning there is no substitute for having up to date, accurate data readily available.

Data in operations

That is not to say that knowing the numbers is not important in operational settings. Choosing the right metrics and measuring them accurately is important in the understanding of the areas in need of improvement. For example, to understand a plant logistics operation, it is essential to have such basic information available as the number of load units in and out per day, an up to date material flow (Sankey) diagram, changeover times and stock levels. Have this information readily available at all times, display it graphically and, better still, know these numbers. Contrary to popular belief, being in control of the data does not stifle creativity – it should be used to identify problem areas where creative solutions are most required. Any organisation serious about continuous improvement needs good data to know where to find the next problem.

Organisations embarking on lean improvement projects also need metrics which measure time. Have an up to date Value Stream Map (or lean tool of your choice) to show throughput time. Know how long individual tasks take in practice, allowing you to evaluate non-value added tasks and focus improvement efforts. Current data is required for meaningful goal setting. The target to 'reduce waste in the supply chain' is meaningless. More meaningful is the target to reduce waste in the supply chain by 'x' percent based on an accurate assessment of waste levels today – but you can only set this target by knowing your numbers.

Data in early project phases

Targets and planning assumptions for new projects are often set based on data from current operations. The accuracy of this data is important then to avoid building deficiencies into future projects. Having accurate, up to date operational data available will accelerate the planning cycle, since it shortens the data gathering phase. Inaccurate data stores problems for later on, as when problems emerge, team members defend their planning based the fact that the original data was faulty. They feel understandably upset, and in the worst cases, 'tricked' by management. Avoid these problems by being sure that your original assumptions were based on sound data.

Data in later project phases

Later planning phases are an iterative process of increasing granularity. There is a great deal of time and money to be saved in lean improvements to the planning process. One source is the often frequent requirement to conduct a 'plausibility check' on data. This amounts to rework in an office context. It slows things down and it's costly. Make sure that it's a rare requirement by starting with accurate data. That's not to say that planning should never be questioned, but at least avoid the situation where original numbers based on current production can be questioned.

In all phases after the initial of concept phases, planning must be data based. If key input data is lacking to allow high quality planning to continue, do everything required to get that information. If you can do it just by working a few extra hours or over a weekend, great, but in the worst case delay decisions until you have a sound base. This will create pressure and tension, cause you to review the project plan, but it will avoid nasty surprises later when it's too late to change anything. Again, the data does not stifle creativity, but in all phases after the initial concept, you need to know, not just feel, whether your planned solutions or improvements will bring results, or whether a rethink is required. There is always an element of risk involved with planning, but knowing your plans are based on the best data available is a better feeling than hitting golf balls into the fog.

Organisational GPS

A traveller lost in Munich asked a passer-by for directions to Stuttgart. The passer-by replied that it was a long way and that he wouldn't start from here. Not a very helpful answer, but at least the passer-by knew where here was. In order to be usable, a GPS system needs a start point and a destination or target. The navigation system cannot create a plan to reach the target without knowing the current position. In the same way, it's impossible to set meaningful targets for your organisation without knowing where you are today. Get your current coordinates wrong, and you risk setting the wrong target or having to retrace your steps to find out where you really started from.

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Bibliography : Gladwell, B. (2005). Blink. New York : Black Bay Books