



Implement a Research Department in your Facility

Moving forward, your business environment is evolving including :

- Customer's needs change
- Regulations get stricter
- Competitors develop new processes, new products.

If you stay stand, you are not just stagnating, you are regressing.

So you need to keep moving, implement anything that :

- Improves your process
- Makes you more efficient
- Opens up your product range

to makes your business more profitable.

Your business is specific and global studies may not be match with your case necessitating your own experimentation.

You want to figure out by yourself if this “new product/strategy/process” will provide you more profits. You want to extract the specific improvement (and value it) of this change from the multiple parameters involved in your business.

1. Identify what result you want to assess.

There are always things to improve, but the most important is to start improving where you feel your business has weaknesses.

When you have numbers describing your processes (crop duration, input budgets...), it is easy to compare to other production systems finding information on the web or communicating with similar businesses.

It can also be part of the production which failed during the year (disease, pest infestation leading to product quality issue) and need to find solutions to avoid it to happen again.

Anyway, it is important to highlight those components of your production system where you can achieve the biggest improvement steps because it is really where to start.

2. Implement experimentation

It is important to define your goal and describe it in details. It is actually very simple as you have two kinds of parameters : the one you want to test (or experiment on) and all the other ones.

Parameter(s) you want to test

Knowing what you want to achieve, you have to list the parameters which can have influence.

If you find more than one parameter, then you have to create multiple experimentation protocols and that is where it gets complicated especially if parameters depend on each other. Each protocol has to be redundant at least 3 times to avoid any one time marginal results. The best is to have 5 repetitions so that you can remove the best and the worst results.

Parameters of the environment

You have to record any of the environment parameters which can influence the results. The protocol with the best results in a certain environment can have a completely different performance in a different environment. If possible try to keep any parameters (not tested in the experimentation) as close as possible to your normal average production values.

3. Analyze results, profits and impact.

It requires some maths knowledge but it is always interesting to use hypothesis testing to make sure that your results are meaningful.

It is not the subject of this article but if you are interested, just google "Experimentation probability test" and you will find a lot of documentation on the net.

Now that you have the results (and have validated that they are meaningful), these results might need extra processing.

You know how much extra production you get, or how much labour you save... but you really want to know what is the impact on your business in terms of profitability or business development.

If the results of the experimentation show benefits, then you have to ask yourself the following questions :

- How do I implement this change on a large scale in your facility?

- What is involved (investments, hiring, organization...) to implement the change?

Sometimes, the benefit is not immediately profitable but produces overall more consistent results/quality versus unpredictable results.

4. Experimentation in real life

It is globally agreed that Research and development should be at least 10% of the company budget.

But the most important is to be consistent in experimenting and avoid losing results. We need to make sure that somebody is in charge to extract usable results with insights to improve the company. It is not always easy because it doesn't always require a full position and people tend to get caught by production tasks.

Conclusion :

Experimentation is the second business development direction besides investing on expansion. It is very important to access more optimization within your business.

But too often, it is not rigorously tracked and cannot be used and implemented on the business.

At IpsumVision, we can help you implement specific experimentation according to your business needs. We can come to your facility to highlight the trials that make sense to improve your productions. Then we provide the follow up during the trial and provide a detailed report of the results.

Want our support to implement expérimentation in your business?

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