

Groupwork assignment

for ICT Services and R&D



Alexey Tukalo,
Dmitry Boronin
EFA12SF,
Information Technology,
Savonia University of Applied Sciences

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1 Big changes

Every big step in development of an industry is a result of revolutionary changes in the technology or the way we use it. Every technological revolution is based on a large amount of knowledge collected in some specific field. For example, the first prototypes of network technologies were funded by US Army in 60-s. Google applied a well-known model of citation impact to sort the huge amount of information available on web.

2 Getting advantage by being flexible

It is hard to define which¹big or small) companies are more flexible, because the small companies have much better internal communication and good ideas can reach top managers quicker, but, another hand, small companies usually have very limited resources and it is much harder for them to develop brand new product if an old one becomes unprofitable in result of some unpredictable changes in the market.

Big companies usually are a little bit more suspicious about new ideas, it is very difficult to push an idea from ordinary workers to the top manager's level, but they have a huge resources for the development. Sometimes it is even easier for them to buy new small company and make the organisation become its own department.

3 Complex things should be modeled

Modeling is a very important part of R&D process, because it allows to make prototypes of several different approaches, identify weak and strong sides of them and choose the best one. Models can be made with specific software or as a scale prototy of the system.

4 Well planned is half done

A plan is a fundamental part of work organisation. Budget and time schedule are based on the work breakdown structure, so the plan is essential for accurate cost estimation and to meet of the final deadline. Strict deadlines are very good way for motivation and mobilization of team and plan usually helps to set them in the best way. A plan is also a very important source of information for chiefs or investors.

5 Make a priority list

Priority list contains the actions/steps sorted in according to their importance, it is a very good idea to use the technique as a starting point for a plan, because it will make an impact of a failed final deadline be less sensible.

6 Running through changes requires Management

Changes are always related with some difficult decisions, which should be made by management team. In addition, changes are always related with some extra-costs and investments which should be handled by managers.

Usually, changes make people learn new things, in general, people are not good in self-studying, because, in other case, we would not need such a developed educational system. In result of some changes, sometimes workers have to learn a new workflow, techniques or whatever, and managers have to find a right way to make them do it efficiently.

Another hand, sometimes company needs new employees with totally new sets of skills and it is responsibility of human resource managers to hire right people.

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7 Information is everything

An information surrounds us everywhere. We live in the post-industrial society, the society is controlled by the information. The information can change people's minds, economical and political situation in particular countries or entire world. For example, it has a huge impact to the stock market.

Another hand, nowadays, we are also able to collect enormous amounts of information about people and use it to gain more profit and grow faster. For example, the information is a core of the growth hacking and recommendation services.

Moreover, the information gives an opportunity to predict trends. The predictions can be used to prepare company's business for a huge changes and get profit from them.

8 Business and IT are getting closer one another all the time

Business is very interested in IT, because it is relatively new and unexplored area. IT has low impact of direct costs and it makes the business model be extremely scalable.

In addition, we want to notice that development of totally new solutions can be extremely expensive, but, at the same time, it can be extremely profitable. For example, network effect has very big influence in case of IT business, usually, it makes the first good approach in a certain market be the last one. It protects the business from competitors and gives an opportunity to generate a lot of profit from the business.

9 Innovation and creativity are tools of success

As we mentioned before, in the field of IT business, network effect makes the first good approach in a certain market be the last one. What is the first good approach?

It is some totally new technologies or unusual applications of a well-known solutions, it leads us to innovation and creativity. Every unicorn² is based on creative realisation of an old idea in a new market, innovative technology or fresh view on an old well-known solution.

²start-up reached capitalisation more than billion of dollars