Evaluation of a transport and logistics IT tool
– A case study of ABB

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Introduction

The ABB Group is one of the leading companies in the power and automation technologies industry. ABB has a decentralized structure with diverse businesses which naturally results in diverse supply chains logistics processes. Currently there is a low level of harmonization of transport and logistics processes within the company. To gain economies of scale benefits through bundling of purchasing volume, it is desired to standardize transport and logistics processes and achieve transparency on material flow and spend. How can this standardization of strategic and operational transport and logistics processes be supported by an IT tool in a global, diverse and decentralized company like ABB?

Method

For the majority of this research a qualitative approach has been applied since the data collected aims to describe business requirements and quality of an IT tool rather than statistical conclusions. The data used in thesis report was collected mainly through interviews and questionnaires.

Results and Conclusion

Choosing an IT tool to support transport and logistics processes is a challenging task. This thesis report presents a framework to be used for evaluating IT tools to support transport and logistics processes. The framework proposes the process to be split into three steps shown in the figure below. The framework has been applied on ABB to provide a decision basis and rationale to invest in a logistics IT tool.

- The pre-study aims to reach good understanding on how the organization is set up, map business processes, to identify weaknesses and how an IT tool can support and improve the performance of processes. The pre-study also identifies the criteria on which the IT tools should be evaluated and cost driver of the investment as well as benefit drivers to be used in the cost-benefit calculation.
- The screening and evaluation process should give a fair assessment of the different solutions and show their strengths and weaknesses based on the evaluation criteria categories identified in the pre-study. (figure below)
The cost-benefit calculation estimates what impact the selected solution can expect to deliver. The identified cost and benefit drivers are presented below. For each cost and benefit driver an estimation rationale needs to be defined. This rationale will be specific for the solution selected in the evaluation process and the current set up of the organization.

Potential benefits will present themselves where the current logistics processes are weak. The drivers that present the largest benefit potential are also areas that should be prioritized in the implementation phase.

When applying the process for ABB purposes a number of external as well as two already internally established systems were evaluated. One of the internal systems was chosen as the preferred solution to be piloted on a larger scale.

The presented framework will also work as a guideline for assessing other types of IT tools then just transport and logistics specific ones. In this case, new functional requirements, cost and benefit drivers and their rationale, have to be identified for the business processes the IT tool aims to support. It is important to note that when using a framework, like the one presented and discussed in this thesis, a pragmatic approach should be applied. It is important to be flexible and adapt the process to the specific project. Finding the best suited IT tool is of course not enough to ensure that the potential benefits are obtained. Just as important as finding the best suited IT tool, the implementation process is absolute key to achieve the potential benefits that the IT tool can deliver.
Further studies

To complement the results of this study it would be interesting to conduct further studies on the importance of the different key ABB logistics stakeholders, in order to gain further knowledge how a pilot should be chosen and how to structure the roll-out process. This knowledge would help to maximize probabilities for successful implementation.

Acknowledgements

Many thanks to my two mentors Carl-Johan Asplund at LTH and Daniel Helmig at ABB. I am also very grateful for Alexander Strehls guidance and support throughout the project.

Sources:


