Performance assessment of research alliances within Royal Philips Electronics

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Nothing has such power to broaden the mind
as the ability to investigate systematically and truly all
that comes under thy observation in life.
Marcus Aurelius (121-180 A.D.) Roman Emperor

One many may hit the mark, another blunder;
but heed not these distinctions.
Only from the alliance of the one,
working with and through the other,
are great things born.
Antoine de Saint-Exupery (1900-1944) French Writer

Executive Summary

Alliances are a widely used method to pursue the strategic objectives of a company. The past decades both the number of alliances as well as the importance and dependency of alliances for companies increased substantially. Philips encountered this tendency by establishing an Alliance Office, of which a part of the mission is: "to facilitate Philips alliance managers...and to improve the partnering capabilities of Philips."

One aspect of improving the partnering capabilities is to provide tools and conduct assessments to measure the performance of Philips' alliances, which result in recommendations for improvement. The Alliance Office was asked by Philips Semiconductors as well as by Philips Research to conduct such an assessment and to develop a performance measurement tool for research alliances. These assignments were combined as a research project, resulting into the research definition of this thesis:

"Assess the performance of several Philips research alliances, and (re)design methods to assess and improve the performance of the research alliances itself and the research alliance capabilities."

The research, which answers the to project definition, is divided into a theoretical part, covering research alliances and performance measurement, and a practical part, using Philips research alliances.

The theoretical part showed that the overall average success-rate of alliances is low (around 40%). Performance measurement of alliances proved to be a difficult task, but an important way to monitor and capture the value of alliances and inherently to improve the outcome of the alliance. Especially for research alliances, which focus on the beginning of the business process (basic or applied research), the performance measurement is difficult due to the long-timeframe of implementation and the 'fuzziness' of the outcome of the research alliance. In the literature, different authors discussed various methods and approaches for such measurement, but no unified or applicable approach could be found.

In the practical part, a performance measurement method was developed. The developed performance method incorporates the characteristics of research alliances, namely through a balanced research alliance scorecard. The balanced approach enables not only to measure the financial outcome, but also the intangible results, the strategic outcomes and the partnering process.

The assessment of a large research alliance, called International Sematech, was used to gain experience in the assessment with a balanced scorecard approach.
International Sematech is a large and complex alliance of the thirteen top-semiconductor companies working on pre-competitive research and technology in more than a hundred research projects. The developed balanced scorecard allowed for recommendations for improvements in all fields and proved to be a useful method to assess such a complex alliance.

The experience of International Sematech together with the theoretical knowledge is used to develop the final balanced scorecard. The scorecard was tested and adapted during trials, using 24 research alliances. This resulted in the final scorecard, which consists of four dimensions, i.e. Strategic, Learning & Growth, Partners Relation and Cost Leverage, where each dimension contains a number of measures as shown in Table I.

Table I Balanced Research Alliance Scorecard measures

Strategic	Cost Leverage
▪ Contribution to enlargement or creation of new business perspectives Facilitate standardisation ▪ Increase of possible future subsidies ▪ Change of network position ▪ Strategic fit with partner	▪ Avoided research costs: manpower ▪ Avoided research costs: capital equipment ▪ Avoided research costs: other ▪ Time to market
Partners Relation	**Learning & Growth**
▪ Cultural fit with partners ▪ Operational fit with partners ▪ Stability of the partnership ▪ Use of partners' strengths ▪ Complementary competencies of partners ▪ Partner satisfaction technological contribution ▪ Partner satisfaction active presence ▪ Subsidiser satisfaction: content ▪ Subsidiser satisfaction: administrative	▪ Competence acquisition and built up ▪ Provide unique technology or know how ▪ Transfer of results from R&D partnership to Philips ▪ Transfer of results internal Philips ▪ Actual use or implementation of results ▪ Future Research value ▪ Exchange of knowledge (IPR) ▪ Number of patents internal ▪ White papers and Publications

The research community positively received the scorecard. It was shown in the pilot that an alliance can have limited technological results, but can still be a success. This success would probably not be identified without the balanced approach and might result in limited support or termination of the alliance. The tool is implemented in the Research Department and will be used the coming years to assess the research alliances.

In conclusion, the developed balanced research alliance scorecard is shown to be a good approach of measuring the performance of a research alliance and suited to deal with the multi-faceted complexity of research alliances. Such performance measurement is not addressed specifically for research alliances in the literature, neither existed within Philips.

This executive summary discussed the thesis written by Niels Schallenberg, student Industrial Engineering and Management Science of the Eindhoven University of Technology. The