**PhD Proposal 2016**

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**Title:** Development of an assessment framework of collaboration strategies for extended-enterprise.

**Scientific field (*)&: Industrial engineering**

**Key words:** inter-enterprises collaboration, interoperability, performance assessment, KPI

Details for the subject:

Background, Context:

In the context of globalized market and hard competitiveness, nowadays companies always need to develop new sources of value. In such context, it has great interest in keeping and developing close and confident collaboration with different partners. These collaborations have a major impact on the performance of a given company.

One of the main questions for the manager is then how to define the best collaboration and how to assess the impact of this collaboration on the performance of its company?

Several factors can contribute to the success or the failure of a given collaboration. The dynamic monitoring of these collaborations, as well as the anticipation of their impacts on tools, methods, resources and processes used on the enterprise is then of paramount importance.

Previous studies have identified the impact of interoperability on the sustainability of collaborations, in particular through organizational capabilities. Taxonomies of interoperability requirements have been identify.

Yet the anticipation of future performance (measured with value added) for a given interoperability level is not possible with the existing tools.

The simulation of a given collaboration scenario (with given interoperability settings) is still a challenge.

Research subject, work plan:

The aim of the proposed work is to develop an assessment framework that supports the evaluation of collaboration efficiency and its impact on the global performance of the company. It will help managers to decide about the best collaboration strategy.

First phase of the work should focus on the state of the art on enterprise collaboration to identify the principal forms of collaboration and the main factors impacting its performance. This will be used to propose a list of Key Performance indicators (KPI). The expected outcome is a classification of interoperability levels with identification of the correspondent support processes.

Second phase of the work should focus on the development of simulation tools enabling to anticipate the performance of a given collaboration type. Therefore the impact of interoperability settings should be modelled and levers of actions identified. The creation of value should be monitored for each the processes.

This modeling and simulation tools should integrate several types of collaboration strategies and be adapted for both intra- and inter-enterprise collaborations.

References:


