

proposition sujet de mémoire **2013 - 2014**  
 MASTER Recherche 2<sup>ème</sup> année  
 Management, Innovation, Technologie  
 spécialité « Génie industriel »

Impact of Relationship with Suppliers  
 on New Product Development project performance

From mid of 90, companies have to face international competition, for markets and also for manufacturing sites and recently for research and development activities. Most of companies tend to concentrate on their core competency and then to reinforce their partnership with suppliers. Suppliers are increasingly involved in product development and contribute to product value added while managing a part of product design. Supplier involvement in New Product Development (NPD) can refer to a variety of configurations and may range from simply consulting suppliers about design orientations (white box), to jointly developing the outsourced product (gray box), to delegating full design responsibility for the outsourced product (black box) (Petersen et al., 2005). These configurations required a more collaborative relationship between the customer and the supplier involved in new product development of a new product to be successful. This research focuses on the impact of the collaborative relationship on the project performance defined in terms of innovation, cost, quality and time to market. To define the peculiarities of a collaborative relationship, we use the social capital theory (McGrath and Sparks 2005) and social exchange theory by focusing on the concepts of “preferred customer” and “preferred supplier”. (Carey et al. 2011) demonstrated that the 3 dimensions of the social capital (cognitive, relational and structural) have a positive impact on the customer cost and innovation improvement. Concerning the social exchange, Schiele et al. (2011) considered the positive impact of the preferred customer status on supplier innovativeness. The conceptual model proposed in this master research take into account the influence of trust (relational), of a shared vision between the partners and of common values (cognitive), of interaction ties (structural) as well as the influence of the preferred status of both partners (Figure 1).

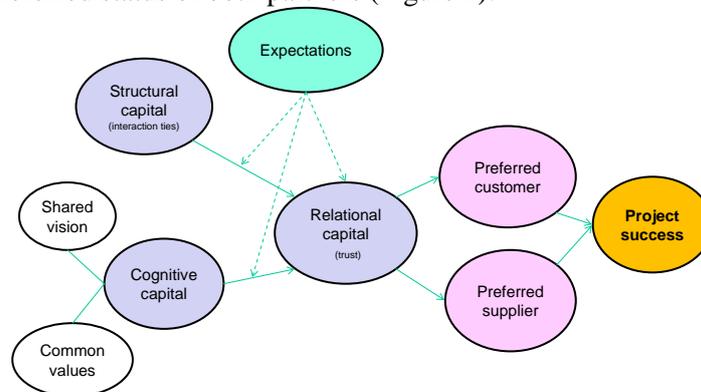


Figure 1: Conceptual model

The objectives of this research project are the following:

- Conducting a state of the art of the social capital and social exchange and social network theories
- Testing the conceptual model by analyzing the results of a quantitative study already carried out in collaboration with the University of Twente. The model will be estimated using SmartPLS 2.0 (Ringle et al., 2005) as it is more appropriate for analysing models with high complexity (MacCallum and Browne, 1993)

This project is in continuity with common research projects already conducted between the 2 laboratories (G-SCOP and IREGÉ concerning the topic of inter organizational collaborative design. In this respect, a multidisciplinary approach (Engineering and Management) will be adopted in this work.

This project will be carried out in collaboration with the University of Twente (Professor Holger Schiele). Our final objective is to publish the results of this Master thesis in a scientific international journal.

## References

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- Quel parcours conseillez-vous : Supply Chain ou Product Development ?

### **Product Development**

- Pour mener à bien le stage, il est souhaitable de suivre en cours optionnels le (s) enseignement(s) suivant(s) :

Knowledge integration and collaboration in engineering design (cours obligatoire en Product Development)

Ingénierie Collaborative

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Entreprise (éventuellement) **pas de contacts directs mais utilisation des résultats d'une enquête menée auprès de 40 entreprises**