

Managing production sub-networks: an international study

Two years Post-Doc position at
Department of Management, Information and Production Engineering at
University of Bergamo
Italy

Research project

Multinational manufacturing companies produce different types of products using international production networks. These networks can have a vertical structure (production is divided according to the production process) or a horizontal structure (divided according to the market to be served). In addition, the diversity of products, for example, products with a high or low technological content, can be reflected in the way these networks are managed.

Compared to these different management methods, in 2016 Vereecke, Ferdows and De Meyer introduced the concept of sub-network, i.e. a grouping of production units characterized by a certain type of product/process. The result of this study shows how sub-networks that produce low-tech products are more subject to structural reviews (footloose sub-network).

Although the concept of sub-network may simplify the management activity of the entire network, the ways in which these sub-networks are managed have not yet been studied in depth.

The project therefore aims to study these sub-networks and the related management practices, such as the organisational structure, control and coordination mechanisms, the level of expertise required, operational integration practices and knowledge exchange.

Given the complexity and novelty of the theme, the research methodology chosen is that of case studies. In particular, a number of companies will be analysed at European level and the related foreign production plants within the sub-networks.

The project will therefore be divided into 3 phases for a total duration of 24 months.

Phase 1 - Systematic review of literature (4 months). In this phase, the most relevant articles will be collected for the identification of the different management variables of a sub-network. Where necessary, systematic literature review techniques will be applied, including a systematic search for articles, analysis of the citation network and main topics.

Phase 2 - Data collection (12 months). In this phase, the interview protocol will be defined and the companies to be contacted will be selected following the best methodological practices in the analysis of case studies. Firms will be interviewed in person or by telephone and all the information collected will be triangulated with information from secondary sources (reports, balance sheet data, presentations, etc.). If further data need to be collected, companies will be contacted for follow-up meetings.

Phase 3 - Analysis of results (10 months). The collected data will be coded in order to identify the differences and similarities between the cases and the different types of sub-network analysed. In this phase, best practices in the management of these networks will also be studied, with particular emphasis on the difference between footloose networks and other types of networks.

The project will also be supported by a **dissemination** phase of the duration of the entire project.

The aim is to produce at least 2 articles to be presented at the conference and then sent to international journals. A report will also be written for the participating companies. Finally, the results of the project will be disseminated through social networks and specialised websites.

All phases of this study will be conducted according to the principles of the highest scientific rigour to ensure results that advance the state of the art of knowledge.

Minimum requirements of candidates

Ph.D. Degree in engineering management, management, economics, technology management or equivalent.

Good knowledge of English.

Evaluation process

Evaluation process is described in detail in the call for submissions (Annex 1.). Mainly, it is based on the evaluation by a local committee of the research background of the candidates through the analysis of the CV and by means of a interview aimed to evaluate the candidates' knowledge on the topics related to the project.

The interview will focus on:

- Description of previous experiences and competences in accordance to the topic of the research program
- Strategy, organization and management of supply chain and manufacturing networks
- Ability to manage an empirical research by means of case studies, survey and data analysis
- Knowledge of English (basic knowledge of Italian in case of foreign citizen is an advantage)
- Interest and motivation towards scientific activity and research
- Ability to interact with industries

Special consideration is given to candidates that have the following attributes:

- PhD in fields coherent with the research topics
- Work or research experience in areas coherent with the research program
- Collaborations with national and international research groups
- Scientific publications in areas coherent with the research program
- Management of empirical research by means of case studies, survey and data analysis
- Ability of conduct statistical analysis
- Knowledge of Italian language

Economic conditions

The Post-Doc positions is for 2 years and the economic treatment is 20.400 € gross per year.

Deadline for application: November 24th 2017

More information

For more information on the call you can contact the administrative office at selezionipersonale@unibg.it.

For more information on the research project you can contact the scientific responsible:

Prof. Matteo Kalchschmidt – matteo.kalchschmidt@unibg.it

Prof. Ruggero Golini – ruggero.golini@unibg.it

Website for the call: <https://www.unibg.it/bando/bando-di-concorso-relativo-alla-selezione-pubblica-titoli-e-colloquio-il-conferimento-di-n-1-0>