

Understanding responses to perceived complexity by internal stakeholders. Case study of a publicly-funded R&D project of an industrial SME

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Abstract.

The purpose of this paper is to contribute to the advancement of knowledge on how to manage the perceived complexity by project participants. For this we carried out a case study approach and we chose an R&D project carried out by an SME, which was partly co-financed by a public entity. We use a qualitative approach for our research. In addition, we conducted semi-structured interviews, at the beginning of the co-financed part of the project and at the end, using the Complexity Assessment Tool (CAT) as a scheme. The results showed the usefulness of the CAT to guide the responses to the perceived complexity and the use of social capital and human capital as a source that is used by the participants in the project to develop the responses. Our work extends knowledge about the importance of developing responses to complexity and the sources from which they arise.

Keywords.

Human capital, Social capital, Complexity, Project management, SME, R&D

1. Introduction.

The aim of this paper is to help fill the gap that currently exists in the academic literature, by examining the responses of participants to the perceived complexity of an R&D project carried out by an SME. Part of the project was co-funded by a public body. By studying the way in which the participants related to and worked on the project, we were able to observe how the informal structure of the SME changed. Important changes took place in the way of working, in the procedures and processes, and in the way of relating and interacting between all those involved in the project, both internally and externally.

In order to achieve our aim, we analysed the responses at the beginning and at the end of the co-funded project and posed the following research questions:

RQ1: Is the Complexity Assessment Tool (CAT) developed by Maylor, Turner, & Murray-Webster, (2013) useful in guiding responses to subjective complexity in an R&D project co-funded by a public entity?

RQ2: What knowledge resources did project participants use to manage complexity?