



Projects and firms as discordant complements: organisational learning in the Munich software ecology

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Received 1 November 2003; accepted 1 August 2004

Available online 19 November 2004

Abstract

In current theorising, projects and firms are understood as “learning organisations”. Although the learning function can be regarded as constituent for both organisational forms, the specific learning mechanisms are connected with opposing features (e.g. long-term, trustful collaboration versus short cyclical, disruptive collaboration). Referring to the first results of qualitative research conducted on the Munich software cluster, this paper aims to explore the functional interplay between projects and firms with regard to organisational learning. The main thesis is that processes of improvement, failure eradication and knowledge accumulation are more likely to take place in firms whereas processes of structural change are more likely to be organised in a project. In complementing one another these functions, however, also generate inconsistencies like contravening learning incentives or contingency traps. Therefore, projects and firms may be regarded as “discordant complements”.

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Keywords: Project; Project ecology; Project-based firm; Organisational learning; Software development

1. Introduction

In management theory and economic sociology, a strand of research has been established that centres on the notion of the “project”. The main distinguishing feature of projects is their nature as “temporary organisations” (Lundin and Söderholm, 1995; Ekstedt et al., 1999; Söderlund, 2000; Turner and Müller, 2003). The termination of a project is already fixed when it

starts. The current importance of projects challenges some widespread assumptions of economic and organisational theory. The firm is implicitly understood as quasi-constitutional entity for the organisation of working processes. Thus, projects being more flexible and market responsive than firms occur as a distinctive form of organising work. Moreover, projects challenge some mutual agreements within the discourse on organisational learning. Trustful and long-term relationships between the actors are widely seen as necessary preconditions for learning processes in firms. In project-based organisations, however, trust and long-

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term relationships are at risk. Nevertheless the emergence of projects also derives from the idea, that they promote learning processes (Kalkowski and Mickler, 2002; Brady and Davies, 2003; Lindquist, 2003; Scarbrough et al., 2003).

Research on projects traditionally takes up a position that offers mainly an internal view of project management. Some actual research on project business (Bengtsson and Söderholm, 2002; Christopher-son, 2002; DeFillippi and Arthur, 1998; Ekinsmyth, 2002; Ekstedt et al., 1999; Engwall, 2003; Gann and Salter, 2000, 2003; Grabher, 2002a, 2002b, 2004; Hobday, 1998, 2000; Lundin and Hartman, 2000; Sydow and Staber, 2002) however, goes beyond this limited scope. The notion of a “project ecology” (Grabher, 2002a, 2004) means investigating projects as organisations embedded in a social context. Projects are located organisationally within or between firms, rely on personal networks between the actors involved, draw trust out of their institutional context, and benefit from qualifications provided by local labour markets (Grabher, 2002a).

This paper analyses the interplay of projects and their social context with regard to knowledge creation and organisational learning. In favour of an in-depth analysis, the paper focuses exclusively on one dimension of project embeddedness, the functional and organisational interdependency between projects and firms. The main difference between a project and a firm is their conceptions of time. For a firm a *cyclical time conception* is applied, whereas the project follows a *linear time conception*. The firm’s routines are established to deal with constantly (seasonally, monthly, daily, etc.) reoccurring tasks. By contrast, a project is created to fulfil a one-off mission. Project terminology (“milestones”, “deadlines”) also expresses a linear understanding of time.

The aim of this paper is to provide an exploratory study of one dynamic industry to reveal the specific modes of organisational learning connected with projects and firms and to delineate the interplay between these modes. The theoretically deduced assumption of a complementarity between project- and firm-specific learning modes is confronted with empirical results from the Munich software ecology. In its main parts, the paper discusses the empirical evidence in three perspectives. It depicts typical modes of organisational learning within software projects (Section 3), de-

scribes ways of learning from software projects within a firm (Section 4) and focuses on the interplay between firms and projects (Section 5).

This paper draws on initial results of a qualitative exploration of the software industry in Munich, conducted by the author together with Gernot Grabher in 2003.¹ As Germany’s biggest and most successful software cluster the Munich software ecology promised not only to reveal the key dimensions of organisational learning interdependency and conflict but also methods for overcoming typical difficulties which could be useful for industrialists and policy makers. The core empirical data consists of 32 semi-structured interviews in Munich software firms. This material is supplemented by a variety of secondary sources, including interviews conducted with software freelancers in Munich, with German software firms outside from Munich and with Bavarian state-representatives as well as data from industry reports, manuscripts written by reflecting practitioners and press releases.

This empirical basis contains two methodological problems. Firstly, the software development has a twofold exceptional position that limits the scope of generalisation. Compared to traditional project businesses like house- or ship-building software development is highly learning—as well as knowledge intensive (Swart et al., 2003). Compared to other learning intensive project businesses like advertising (Grabher, 2002b) or film making (DeFillippi and Arthur, 1998), which are ruled by the imperatives of originality and creativity, the software industry offer more market incentives to recycle solutions and to reuse whole components (Grabher, 2004; Lehrer, 2000). A computer code can be re-produced with increasing returns, since the costs for its duplication are marginal compared to the development costs. By the same token its exceptional position also offers a rare opportunity to investigate empirically a wide spectrum of organisational learning, since software development embraces creativity as well as routines, originality as well as reusability,

¹ “Production in Projects. A Comparison between Software Industry in Munich and Advertising in Hamburg” (Project Leader: Gernot Grabher). Research support is provided by the German Research Foundation (DFG: GR 1913/3). Quotations in this paper are translated into English by the author. The reference code (e.g.: “G37”) means: G, general manager; D, department manager; E, software engineer. The number within this code is a consecutive number that refers to a certain interview transcript.

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