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Exploring Organizational Routines in Project-Based Organizations

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Abstract
This paper explores the existence and functioning of routines in project-based organizations (PBOs), creating a bridge between the literature on PBOs and the literature on organizational routines. Relying on inductive case study research, new conceptualization, and combining top-down theory and bottom-up approaches to data collection and analysis, it shows that routines exist even in the case of small firm PBOs. The evidence suggests routines’ antecedents, characteristics, and functioning. The paper also provides a methodological contribution concerning the identification and analysis of routines in project-based settings.

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EXPLORING ORGANIZATIONAL ROUTINES IN PROJECT-BASED ORGANIZATIONS

ABSTRACT

This paper explores the existence and functioning of routines in project-based organizations (PBOs), creating a bridge between the literature on PBOs and the literature on organizational routines. Relying on inductive case study research, new conceptualization, and combining top-down theory and bottom-up approaches to data collection and analysis, it shows that routines exist even in the case of small firm PBOs. The evidence suggests routines’ antecedents, characteristics, and functioning. The paper also provides a methodological contribution concerning the identification and analysis of routines in project-based settings.
INTRODUCTION

Current understanding of routines draws mainly on research that focuses on large Chandlerian, functional firms. Recently, empirical research has begun to suggest an important role for routines in project-based organizations (PBOs). Routines represent one of the mechanisms that PBOs use to prevent the risk of ‘reinventing the wheel’, emerging especially when team members do not change across successive, similar, projects (Brady and Davies, 2004).

This paper aims to create a bridge between the PBO and routines literatures to provide a more comprehensive understanding of the routines’ constitutive elements and their functioning. We rely on the conceptualization of routines provided by Feldman and Pentland (2003), who present routines as made up of two different aspects: ostensive, their abstract representation; and performative, their actual implementation. We apply this conceptualization to the exploration of routines in PBOs in the case of small firms, given the preponderance of small and medium enterprises (SMEs) in the economy and the lack of research on routines in small firms. Also, given the relative informality of small firms’ practices, we would not expect a reliance on routines, hence they provide an interesting test case for the existence and functioning of routines. The research focuses on an exploratory inductive case study of one small firm in the Italian communications industry, where small firm PBOs are a typical form of organization. Due to the complex, ill-defined, process nature of the subject of inquiry we combine bottom up and top down approaches to enable us to identify and analyze routines in depth. Relying on extant theory, we develop a list of top down concepts derived from the literatures on organizational routines and PBOs that, in turn, provided the basis for a framework to conduct research and analyze empirical evidence on the nature and importance of routines. The bottom up research draws on a combination of descriptive narratives, visual mapping, and grounded theory.
The contribution of this paper is twofold. First, at empirical level we illustrate that routines exist in PBOs and suggest that peculiar antecedents make them emerge even in contexts of a high turnover of actors. Once emerged, routines are not necessarily embedded in artifacts, but perceived as procedures by the actors that implement them. Second, at methodological level, we provide a technique to identify and analyze routines’ existence and functioning in contexts where activities are often not formalized in artifacts.

THEORETICAL BACKGROUND

Project-Based Organizations: Major Features and Organizing Principles

Project-based organizations are various organizational forms, which rely on projects to coordinate and integrate knowledge, resources and capabilities in order to provide products and services (Hobday, 2000). They characterize industries, such as advertising (Morris and Empson, 1998), film production (De Fillippi and Arthur, 1998), complex products and services (Hobday, 1998), television (Sydow and Staber, 2002), accountancy (Morris and Empson, 1998), software (Grabher, 2004), consultancy and marketing (Alvesson, 1995).

Extant literature emphasizes the non-repetitive nature of project activities, the chances these offer to explore new market and technological opportunities (Hobday, 2000). Project discontinuities reduce the chances to learn from experience (Davies and Brady, 2000; Hobday, 2000), since what has been learnt in a particular project is likely to be lost when the project is concluded, the project team disbands and similar mistakes may be repeated (Brady and Davies, 2004).

However, even managing a radically new project may involve practices and procedures developed during past ventures (Engwall, 2003). Empirical studies show that PBOs implement several mechanisms in order to make lessons learnt in a particular project available over time and across space (e.g. Prencipe and Tell, 2001). Along this line, Davies and Brady (2000) argue that usually project teams try to rely on previous routines. As soon as the latter prove inappropriate, they explore new ones in response to the contingencies of the
particular project to carry out (Davies and Brady, 2000; Brady and Davies, 2004). Similarity and team stability across projects allow routines emerge. However new routines emerge only if they are aligned to local existing ones and to power and knowledge distribution among actors across the organization (Bresnen et al., 2005).

Although scholars suggest that routines exist in PBOs, identify some antecedents as key to their emergence, and attribute to them some role in transferring learning across projects, they do not indicate what they mean by routines. Team stability across projects rarely occurs. Participants may change from one project to the next when the project requires knowledge and competences held by different organizations and when the customer is highly involved in project activities.

Previous research shows that PBOs are a widespread and important form of organization. Therefore investigating how routines shape their behavior is an important task. We aim to undertake it by creating a bridge between the literature on project-based organization and the literature of organizational routines.

Organizational Routines: A Different Theoretical Perspective to Analyze PBOs

Several scholars studied organizational routines by redefining the original concepts (Cohen et al., 1996). Becker (2004) identifies at least two broad definitions of routines: routines as cognitive rules vs routines as behavioral regularities. Feldman and Pentland (2003) provide a new conceptualization that overcomes this division. They argue that cognition and behavior are two aspects of the same phenomenon (Becker, 2004), conceiving organizational routines as “repetitive, recognizable patterns of interdependent actions, carried out by multiple actors” (Feldman and Pentland, 2003: 96). They “unpack the black box” of routines by considering routines as consisting of two complementary aspects, ostensive and performative aspects (D'Adderio, 2009). The former refers to the abstract sequence of actions the routine is made of, which does not catch all detailed performances (Feldman and Pentland, 2003). The latter refers to the specific actions that specific actors undertake in a
specific iteration of the routine. Ostensive and performative aspects interact with each other in the iterations of the routine (Rerup and Feldman, 2011).

We unpack the “black box” of routines in PBOs, and name these routines PBO routines to underline their pertinence to PBOs. We aim to address the following research question and the related sub-questions: Can we identify the existence of PBO routines? If so, what do they consist of? What are the antecedents of PBO routines?

We apply our study to the case of small PBOs, which are typical in several industries, such as accountancy, legal profession, advertising and software. In these firms it appears that activities are not codified in the form of routines. However, we do not know this for sure: and a lack of formal codification does not necessarily mean an absence of routines, given that routines may be not codified (Nelson and Winter, 1982). By contrast, we may expect the existence of routines even in small firm PBOs, due to the need to accumulate experience and achieve efficiency and coordination through repeated action.

METHODS

We adopted inductive case study research as inquiry strategy, due to the process nature of the subject under inquiry and the exploratory nature of the study (Eisenhardt and Graebner, 2007). Understanding routine existence and characteristics requires studying organizational processes in the context in which they unfold and to take into account multiple potentially relevant aspects (Pettigrew, 1990). Case study research is the most suitable to “investigate a phenomenon in its real-life context” (Yin, 2003: 13).

Research Context

The research context is a Communication and Public Relation agency based in Italy, which we named PR&C due to confidentiality reasons. It is a family owned business, which was founded in the 1999, whose history is rooted in a tradition of activity started in 1967 in the communications sector, when two brothers created a marketing and communications agency. In 1999, one brother and his two sons created PR&C as a limited company. When the
father got ill, his two sons continued running the business. The older one has become the board chairman and the project creativity leader. His younger brother has become the managing director and the project execution department director. PR&C matches some of the characteristics that literature indicates as suitable to study routines dynamics. It is a firm typical in the sector: it is a small independent owner organization, employing about 25 people, which undertakes similar projects (Brady and Davies, 2004). Projects include some or all of the following services: corporate communication, events organizing, services of support for participating in trade fairs, business-to-business communication, environmental communication, consultancy, media relations, web-site creation and updating, sponsorship, editorial products design and production. PR&C runs its business relying on a network of partners and suppliers with specific capabilities that has built over time in order to undertake projects that require capabilities that have not developed internally (Grabher, 2002) – e.g. the capabilities to print the materials they design. PR&C serves customers located in different geographical areas and operating in several sectors: food, high-tech, pharmacy/healthcare, textile/clothing/accessories, transport, agriculture, and public administration. Projects for public customers work on a contract basis. Contracts last on average one year and are renewable on an annual basis.

We chose project processes as unit of analysis and adopted routines as theoretical perspective. We entered the field with the following working definition of routines: “recurrent and recognizable patterns of interdependent actions, involving multiple actors” (Feldman and Pentland, 2003: 96). Hence, PBO routines are patterns of interdependent actions involving multiple project team members, which recur and are recognizable across projects. Project processes are an embedded unit of analysis (Yin, 2003; 2009). We applied a nested sampling strategy at different levels and different research stages. When the first author joined the organization, we selected the customers and the projects to focus on. The
first time we selected two private customers and six projects; the second time, we selected a public customer and one project.

The initial focus on six projects allowed understanding what actions recurred across projects, and the percentage of the organization activity they referred to. We selected the projects that the organization was managing for two private firms. One is the Italian division of a multinational company producing fencing solutions for end users and for industrial applications. We labeled it Bordeaux due to confidentiality reasons. It is an old customer, whose orders concern trade fairs participation, display stands, event organization and leaflet production. The other customer is a local clothing/accessories retailer. We labeled it Ginger. Projects for this customer, which concern event organization, restyling of the brand, creation and restyling of the website.

In the second internship, the focus on a single project allowed us to deepen our understanding of the processes undertaken during project execution. The first author participated in a project for a public customer, which we labeled Green. An Italian Region had called for tenders to assign services of technical assistance to communicate the regional Rural Development Program. PR&C satisfied on its own all requisites necessary to submit a tender. When the first author joined the organization, the project was about to enter the execution phase. She participated in the first “work progress made”.

Table A1 shows that the projects undertaken for Bordeaux, Ginger, and Green differ along several dimensions.

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Insert Table A1 about here
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We applied such a diversification among customers and projects to achieve theoretical replication (Yin, 2009), to see whether given patterns of interconnected actions are likely to
recruit across projects that differ from each other in terms of size, stage of execution, changes in people managing the project itself, type of served customer.

Finally, we selected three routines: creative proposal development, creative proposal refinement and creative proposal delivery. Routines do not have clear boundaries and are difficult to identify, observe and compare: sitting at a desk in an office, the researcher can only observe part of an entire pattern (Pentland and Feldman, 2008). Only after combining the data sources we were able to identify and select three routines.

**Data Collection**

We relied on multiple data sources: exploratory interviews, participant observation, archival records, documents and emails. In this way we could grasp the two aspects constitutive of routines, ostensive and performative. Whereas interviews, documents expose the researchers to the abstract representation of the routine (i.e. its ostensive aspect) (Cohen et al., 1996), participant observation and emails involve the researchers in the actual implementation of the routine, (i.e. its performative aspect) (Pentland and Feldman, 2005). Relying on multiple sources brought about data triangulation, increasing construct validity, and a more comprehensive portrait of the subject under inquiry (Yin, 2003). The first author collected all data.

Between July and September 2007, the first author interviewed the bidding director, the director of the project execution department, who is the managing director of PR&C, and one of the senior account managers (project managers). The interviews lasted respectively 45’, 30’ and 29’. She recorded and transcribed them integrally. The interviews allowed gather some general understanding of PR&C activity, types of customers they serve, project phases, documents underpinning project activities.

The first author worked at the organization twice as an intern, in the Project Execution Department, which is responsible for the execution of private and public projects. The first time she joined the organization from January 2008 14th to April 2008 24th. She was
appointed in staff to a senior account manager and a junior one. The second time she joined the organization from March 2009 23rd to July 2009 24th. The junior project manager she had worked with the previous year had left the organization. She worked in staff to another senior manager.

During both internships, she worked doing everything she could to help (Bechky, 2006) and attending formal project meetings, as well as “informal, chance meetings, conversations” (Pettigrew, 1990: 278) always. She was involved marginally in the execution of other projects that were managed at that time. This allowed her to see whether the actions that she observed recurred also across other projects run by other people for other customers, and to identify factors impacting on their execution. She could identify possible aspects of projects’ processes, which neither artifacts kept track of, nor project participants were aware of. It allowed her also to capture both formal and informal communications on project work.

During the first internship, she shared the office with two account managers that supervised her. On site she took quick notes, mostly electronically, while performing project activities, and extensive paper notes during project meetings. Off-site she took extensive notes electronically reorganizing those taken on site (O'Reilly, 2005). During the second internship she could not share the office with the account manager she was working with. However, she spent most of the time working side by side with the account manager. Because of her intense mobility within the organization, she took mostly paper-based notes while on site. Off site she reorganized her notes writing them electronically in a more extended form.

Documents include union reports, organizational chart, tenders, call for tenders, meeting reports, quotations, invoices, documents written during the project to coordinate project activities. Union reports offered a general understanding of structure, dimensions and dynamics of the industry; all other documents helped understand the organizational structure and the processes that PR&C undertakes to serve its customers.
Much of project activity coordination occurs via e-mail. We obtained access to work-related e-mails exchanged both among internal departments and with customers and suppliers. The first author collected both emails related to the projects involved in the research, and emails related to the other projects in which she participated marginally, as well as emails exchanged within the organization to call organizational members attention to particular problems or for generic communications, such as absences and delays, communications to coordinate the work of the different departments.

At the beginning, project participants sent her the e-mails. In the meanwhile they told her about project activities. These interviews allowed gathering “background information and perspectives” and “supplementary data” (Orlikowski and Yates, 1994: 551). She interviewed one project planner and three account managers, during the first round of email collection and one project planner during the second round. As this process proved to be time consuming, project participants preferred to give her direct access to their e-mail boxes. In the second round of e-mail collection, she archived the emails directly from project participants’ e-mail boxes.

**Data Analysis**

We applied an “inductive theory generating approach” to data analysis (Howard-Grenville, 2005: 621), relying on appreciative theorizing: it consists in developing theoretic accounts starting from an empirical phenomenon (Nelson, 1995). A theoretic account includes stories that illustrate the causal arguments that relate the variables or concepts that the researcher focuses on to develop or extend theories. To develop theoretic accounts, we combined theory guided top-down analysis and bottom-up observational analysis (Isabella, 1990). The first author applied the analytical techniques that we describe below, the second and the third authors acted as devil’s advocates, looking for alternative interpretations and explanations (Nemeth et al., 2001; Rerup and Feldman, 2011).
Both through data collection and analysis we kept in mind those concepts that previous research on organizational routines and on PBOs has linked to the concept of routines, to have a starting point and a direction to generate concepts and categories and to generate grounded formal theory (Glaser and Strauss, 1967; Langley, 1999). Approaching the fieldwork with these concepts in mind helped the first author not to be overwhelmed by the data. At the same time, being aware of this influence, she tried to be as open-minded as possible (Suddaby, 2006). For the concepts related to routines characteristics and antecedents, we drew from the framework that Becker (2005) developed, enriching it with other concepts that research has related to routines.

Antecedents include task characteristics – i.e. task complexity, task interdependence, time pressure and uncertainty, (Becker, 2005), project similarity, and team stability (Brady and Davies, 2004). Characteristics of routines execution are frequency, sequential variety (Pentland, 2003; Becker, 2005) embedment in artifacts, (Pentland and Feldman, 2005; D'Adderio, 2011) and alignment to power distribution (Bresnen et al., 2005).

To detect existence and characteristics of PBO routines we first mapped all processes undertaken in the projects executed for Bordeaux. Then we matched them with the standard criteria that literature poses to identify routines. We mapped project processes through descriptive narratives, grounded theory, and visual mapping, all strategies suitable to process data analysis (Langley, 1999). Commonly used by ethnographers, descriptive narrative developing consists in developing from the data stories rich of details, allowing to reconstruct the processes observed and the ambiguities of the situations in which they occurred, and grasp complexity and richness of the real setting itself (Van Maanen, 1988; Langley, 1999).

We have relied on all data sources to develop descriptive narratives on the projects undertaken for each customer, whereas we have drawn from data on the organization to get an understanding of the organization itself, the units and the positions in which it is structured.
(Feldman, 2000), how labor is divided and coordinated among the different departments and the documents that underpin the organization activity, what they are used for and how. Also, these data allowed us to grasp the ostensive aspect of the routines later on in the analysis, after their identification, as detailed below. Relying on all the data sources we could overcome the limits of the partial understanding of project activities we could have had relying only on field notes.

In order to avoid the risk of developing idiosyncratic stories rich in details and interesting at a descriptive level, but poor in terms of theoretical contribution, we have applied a visual mapping strategy, developing flow charts for each project described in the narratives (Langley, 1999). To develop the flowcharts, the first author read repeatedly the narrative on Bordeaux in order to summarize project processes. At the beginning she described the type of service, whether PR&C had provided in the past the same service, either to the same customer or to others, what was different in the current request compared to the previous ones. To write the summaries, she identified and coded project processes and relative sub-processes, events and processes outside the project but that impacted on the project itself. She coded both processes and events using the names that project participants gave to them, where possible (Corbin and Strauss, 2008). In the description of each process sub-step, she questioned data using the analytical technique of asking questions. It consists in asking exploratory questions about who, what, where, how, how much, with what consequences, frequency, duration, timing and what if (Corbin and Strauss, 2008). She summarized the narratives, questioning when, how and what took place and what caused what.

Once identified and summarized processes and their sub-steps in the 5 projects undertaken for Bordeaux, the first author represented them graphically. In the analysis of process data, graphical representations show in summary a large amount of data and several processes at the same time (Miles and Huberman, 1994). They allow comparing processes,
relative sub-processes and events impacting on the processes themselves systematically, and represent useful tools to both develop and verify theoretical ideas (Langley and Truax, 1994; Langley, 1999).

Bands, shapes, and connectors make up a flowchart. A central band reports project processes and sub-steps. Above and below the central band, there are bands reporting events, activities and decisions outside the project processes that have an impact on the process sub-steps themselves. Above the central band there are two bands, respectively for the project execution department and the customer. Below the central band, there are 3 bands, respectively for the graphics department, other departments and time. Time band is not on a scale, in order to reduce the room necessary to represent project processes.

Shapes represent events, activities, and decisions (Langley and Truax, 1994). They are respectively ovals, rectangles, and diamonds. For the activities, they report also whether project participants wrote down forms and documents to undertake the activity, by including another shape in the activity rectangle. A rectangle with broken borders groups decisions and activities related to a given process. Lines and arrows are connectors. Lines indicate that either the decision or the activity follows the previous activity or decision; broken arrows indicate that the event, activity or decision causes a delay on the decision or activity to which it is linked; full arrows indicate that the event, decision or activity brings about the activity or the decision it is linked to. To develop flowcharts the first author used the software Edraw Max 5.

Summaries and flowcharts development were iterative, in the sense that developing the flowchart helped better highlight boundaries and scope of processes. Flowcharts facilitated identifying the processes undertaken in each project, better defining their starting and ending sub-steps, as well as the interdependencies among sub-steps of the same and of different processes. Furthermore they allowed comparing the way the same process took place in
different projects and what impacted on his unfolding. Each flow chart reports events impacting the processes of the project, distinguished according to the context in which they occurred, both within and outside the firm’s control. This allowed classifying the contingencies affecting projects and undertaken processes. Developing the flowchart was key to identify all processes taking place during project execution. Comparing flowcharts relative to different projects allowed identifying processes recurring through different projects for the same customer.

Once developed flowcharts and coded processes, events and decisions, we matched the processes with the criteria identified in the literature to identify organizational routines. According to Feldman and Pentland (2003) the criteria can be drawn from the definition itself of organizational routines. They are:

**Presence of recognizable patterns of actions.** Applying this criterion in PBOs, a process is a routine if it occurs through a recognizable pattern across projects either for the same or for different customers. Across the five projects that PR&C undertook for Bordeaux, six processes proved to exhibit a recognizable pattern of actions. These were: (1) project initiation, (2) creative proposal development, (3) creative proposal refinement, (4) creative proposal delivery, (5) quotation development and delivery and (6) invoicing.

**Recurrence.** In PBOs, a process is a routine if it takes place across projects undertaken either for the same or for different customers. These six processes recur across all five projects undertaken for Bordeaux.

**Interdependence of actions.** A process represents a routine if the actions making it up are interdependent: the output of one action is the input to another. Among the six processes identified in the projects undertaken for Bordeaux, (1) project initiation involved a single

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1 We have not reported in the paper the flowcharts of the projects, due to the limited available space. However, the reader can contact the first author, if he or she is interested in looking at them.
action – i.e. written brief - in three projects out of five. Since a single step spurs action, project initiation does not satisfy the criterion of interdependence among actions. The other five processes – i.e. (2) creative proposal development, (3) creative proposal refinement, (4) creative proposal delivery, (5) quotation development and delivery and (6) invoicing - are each made up of multiple interdependent actions.

Involvement of multiple individuals, each in charge of one or more sub-processes. A process is a routine if it involves several project participants, each in charge of one or more actions. Processes (2), (3), (4), and (5) satisfy also the criterion of involvement of multiple actors in charge of different actions. Process (1), project initiation involves only one actor – i.e. the customer’s marketing manager.

Among all six identified processes, we have classified as routines only those that matched all four criteria and that represent the way in which organizational activities are actually performed (Cohen and Bacdayan, 1994).

Hence, we have identified five routines: creative proposal development, creative proposal refinement, creative proposal delivery, quotation development and delivery, and invoicing. We decided to reduce the number of routines to analyze to three in order to have a more reasonable number of cases, namely 11 iterations for each routine, considering the number of projects included in the research.

We selected creative proposal development, creative proposal refinement and creative proposal delivery. They are strongly related to the type of activity that the firms undertake – i.e. creativity work.

Once identified the performative aspect of the three PBO routines, as they took place in the projects undertaken for the first customer, we needed to grasp both their performative aspect in the projects undertaken for the other two customers and their ostensive aspect. Artifacts underpinning project activities execution represented the starting point to identify
the ostensive aspect of the three PBO routines under study. Being exposed as well to other projects in which these PBO routines took place, the first author could get an understanding of the percentage of the activity they related to. While she worked at PR&C, actors involved in the different projects discussed how they were supposed to undertake project activities and what the procedures were. These discussions, along with chance interviews, artifacts and interviews, helped depict the ostensive aspect of the PBO routines under study.

Looking at the same time at the routines, the context in which they take place, and the story of the organization and its activities has allowed us also to detect the antecedents and characteristics of routines.

Being PR&C a small enterprise operating in public relations and communications sector, the routines they adopt are not codified in any manual or software. However, actors involved in their execution recognize them as procedures.

Lately, project planners, the project managers in the bidding phase of public projects, have inserted a partial description of the tasks and the methods that characterize project execution in an artifact of the tender they submit, named technical offer. It describes the communications plan that they propose to realize in case of contract awarding. It contains a partial description of creative proposal development and creative proposal refining. Only public customers and the account manager (the project manager of the project execution phase) have access to this document. The account manager does not share it with the other project participants.

Creative proposal development is the PBO routine aimed to transform the customer’s request in a creative proposal. The creative proposal includes a visual (an image) and a headline (a title – i.e. a word or a phase), with relative sub-head (sub-title) and body text (paragraph illustrating the details of the proposal), which transmit the message that the customer wants the proposal to communicate. The PBO routine occurs through two sub-
routines: department activation and proposal development. As figure B1 shows, in department activation three actions take place: written brief, work assignment, briefing meeting.

Written brief: the account manager gives either the external suppliers or the production director written indication of what they are supposed to do. She completes a form in which she reports the information on a new project or service to realize. The form contains several boxes in which she inserts the project details. The technical offer of the tender for Green reports: “For each means, the work team will receive all information that the account manager dedicated to the project will have collected in the brief with you”.

Work assignment: the production director and the art director assign the work to the available art and copywriter, who respectively prepare the visual and the texts (i.e. head, sub-head and body-text). The technical offer for Green reports: “All communication means will be realized by a work team coordinated by the art director and made up of an art, a copywriter, … under a project leader's supervision”.

Briefing meeting: the account manager explains what the customer is looking for and clarifies any doubt the proposal developers have. The production director: “after forwarding the brief, the account manager meets the art director and the copywriter to give indication on what they have to do” (chance conversation with the production director - 06/02/2008). The technical offer for Green reports: “On the basis of such information, she will organize a first meeting to identify the basic characteristics of materials on a graphic-structural viewpoint”.

As figure B2 shows, after department activation, proposal development takes place. It involves: proposal work, proposal check, proposal correction, and feedback request.
Proposal work: the supplier or art and copywriter assigned to the project start working at the proposal. The technical offer for Green reports: “… A copywriter will write the texts according to the materials and information collected from you… In this way they will develop a first draft of the means…”

Proposal check: when the proposal is ready, they share it with the account manager, either face to face or via email. The account manager checks it.

Proposal correction: if there are some mistakes, the account manager sends the proposal back to the department, asking for corrections. Art and copywriter make the necessary corrections and send the proposal back to the account manager.

Feedback request: once the proposal is ready, the account manager sends it via email to the customer referent for feedback. The technical offer for Green reports: “…. and the account manager will share it with you for approval”.

At this point, creative proposal refinement starts. It is the PBO routine aimed to make the creative proposal match customer’s preferences. Actors in charge of the actions making up this routine include the customer’s referents, the account manager, the art and the copywriter. It is made up of customer feedback loops, written approval from the customer, and internal checked & approved, when PR&C is in charge of printing materials. As figure B3 shows, a customer’s feedback loop includes four or five actions: these are: customer’s feedback, proposal corrections, proposal check, proposal correction, and approval request.
**Customer’s feedback:** the customer referent lets the account manager know if they like the developed proposal, either on the phone or via email.

**Proposal correction:** they may request for corrections. The art and the copywriter correct the proposal according to the customer referent’s feedback.

**Proposal check:** the account manager checks the corrected proposal.

**Proposal correction:** in case there are some mistakes, the art and the copywriter correct them further.

**Approval request:** if it matches the customer’s request, she sends it to the customer via email, requesting for approval.

The technical offer for Green reports on feedback loops: “in case of positive feedback, the team will realize a definitive draft, making all corrections the customer would request”.

**Written approval or ‘checked & approved’:** the customer approves in black and white the proposal. As figure B3 and figure B4 show, the ostensive aspect of this PBO routine changes according to the private or public nature of the served customer.

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Insert Figures B3 and B4 about here
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In case of public projects, customer referents include a political referent, which gives feedback and approves the content of the proposal, and an administrative referent, which is in charge of approval. Figure B4 highlights that the type of customer makes an additional action appear in the ostensive aspect: administrative counterpart’s checked & approved (formal approval). Without this approval PR&C cannot send the materials to printing.

**‘Internal checked & approved’:** Once the customer provides written approval via email, the PBO routine is over, unless PR&C is in charge of printing the materials. In this case, once received the customer referent’s approval, the production director makes the account
manager check and sign a printed copy of the proposal. In this way, the production director
does not have any responsibility in case the printed material is wrong.

Creative proposal delivery is the PBO routine whereby the creative proposal that the
customer referent has approved in black and white is sent to printing. The technical offer for
Green reports: “Once obtained your checked and approved they will proceed to print
materials.”

Figure B5 shows that three actions make up this PBO routine: delivery arrangement,
executive files production, and delivery.

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Insert Figure B5 about here
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Delivery arrangement: either the procurement director or the production director agrees
with the printing supplier how and when they have to deliver the executive files, necessary to
print the creative proposal.

Executive file production: as soon as the customer has provided written approval and the
account manager has checked and signed the proposal, the art makes the executive files and
saves them over a CD ROM. The executive files are the files of the proposal in high
resolution, which report the measures to respect when printing the file.

Delivery: either the production director or the procurement director gives the CD ROM
with the executive files to PR&C suppliers in charge of printing. As the production director
explains: “When the material to print is a brochure, we give to the supplier also a printed
copy of the executive files, to show how the brochure is layout. This saves us from any
responsibility in case the supplier is wrong in laying out the brochure”

In July 2007, Bordeaux hired a new sales director, who found PR&C quotations for
printing and production services too high. He decided to rely on other suppliers for printing.
Because of this decision, since then, the ostensive aspect of creative proposal delivery for the projects undertaken for Bordeaux includes another sub-routine: technical features definition and delivery. Figure B6 shows that three actions make it up: in each project, the customer requests the technical features of the materials to print, the art director defines them, and the account sends them via email to the customer’s marketing manager.

Insert Figure B6 about here

PR&C CASE

Creative proposal development, creative proposal refinement and creative proposal delivery take place across all projects executed for Bordeaux, Ginger and Green. Project similarity, task interdependence, clear role structure, and time pressure favor the emergence of the three PBO routines notwithstanding actors’ turnover.

*Project similarity.* All the projects for Bordeaux, Ginger and Green imply creativity work. Team members achieve it implementing creative proposal development, creative proposal refinement and creative proposal delivery, whatever the service to realize.

*Task interdependence.* In all projects is evident the interdependence between the actions making up a routines and the actions of different routines. Each routine is internally characterized by sequential interdependence: if the customer referent does not brief the account manager on their needs, the account manager cannot brief the other project participants and they cannot develop any proposal. There is interdependence also between different routines: the media planner cannot execute the media plan, e.g. by sending the file of posters to dealers if creative proposal delivery for the poster is not ended.

*Clear role structure.* The projects for the three customers present a clear role structure. Each team members is supposed to undertake given actions at given points in the project. In
case he is not available, other available actors may substitute him or her, so that the routine
and the entire project can take place.

*Time pressure.* In all projects run for the three customers, the team members felt high
time pressure in order to meet the project deadlines. However, in the projects for Bordeaux
and Ginger they missed several deadlines. PR&C runs about 20 projects at once. Each project
has given deadlines that the project team has to respect. However the resources are limited.

*Actors’ turnover.* Team members change both across projects and, in some cases, during
the same project for several reasons. First, the customer referents are actors in charge of some
actions making up the project processes. There is turnover of actors any time the firm
undertakes a project for a new customer or customer’s referents change. Second, when the
production director assigns the project to the art and the copywriter, she chooses those people
that are less busy in that moment. They may not be the same people that worked at previous
projects for the same customer or at other services for the same project.

Third, personnel turnover has interested all departments over time. The main reasons are
that according to PR&C employees are very few opportunities of getting promoted and of
learning. The few opportunities to get promoted are due to the small size of the firm. In the
project execution department and in the graphics department they employ also interns,
namely students that work at the organization for short time periods and then leave.
According to the employees that have been working at PR&C for at least 6 years, PR&C’s
owner does not give people the opportunity to develop creative ideas and the art director does
not mentor arts. At a certain point, some PR&C employees started keeping track of the
people leaving the firm, updating each other via email. The email subject was initially “water
under the bridge” then “updated list of the fallen”, finally “steady trickle”. From 2000 to the
end of 2007, 52 people left the organization.
The three PBO routines recur across projects, present sequential variety, are underpinned by different types of artifacts and present issues of power distribution.

*Frequency.* The three PBO routines recur for all projects undertaken for Bordeaux, Ginger and Green. In Green, they recur as many times as the services to provide.

*Sequential variety.* Across the projects undertaken for Bordeaux, Ginger and Green, the three PBO routines present sequential variety. In all projects, variation concerns also the means used to accomplish an action, as well as the actor and the beneficiary of the action. The causes of the variations are contextual contingencies - pertaining alternatively to the actors, to the project, to the organization, and to the customer - that actors have to face in order to execute the routine and accomplish the project.

*Embedment in artifacts.* The ostensive aspect of the three PBO routines is embedded in an artifact accessible only to public customer’s referents and to the account manager. Hence, its relevance in informing the execution of the routines depends on the account manager and on public customer referents. Other artifacts do not embed the performative aspect of the PBO routines but become relevant in their execution, e.g. the brief that the account manager has to fulfill to coordinate the other team members work. Their use depends on the attitude of the account manager: the one running for Bordeaux and Ginger fulfils the brief form, the one running the project for Green briefs the team members via e-mail.

*Power distribution issues.* The political referent in the project for Green does not accept that the administrative referent is entitled to give formal approval in creative proposal refinement. At the operations meeting after the third event, she says to the account manager: “You (the account manager) deal with them (administrative referents) for administrative issues, and with us for the rest”. Account manager: “if the person in charge of the course does not give approval to me, I do not feel authorized to proceed.”
The political referent: “We cannot work in such a way! If I say to him that I am about to give the approval and then the councilor changes her mind, it is not ok.”

Administrative referent: “you can call me again and inform me” (Operations meeting among the account manager, Green’s political and administrative referents and the account’s collaborator, 12/05/2009).

However, they fail to reach an agreement. The account manager wants to resolve this issue in the organization of the fourth event: “I need formal approval… We could solve this problem easily if you (political referent) copied the email to the administrative referent when you give to us your approval.”

Political referent: “I can make it, as far as it is my approval to matter!”

Administrative referent: “I do not want to be a paper pusher!…. I want to be removed from this position” (Operations meeting among the account manager, her collaborator and the political and administrative referents of Green, 24/06/2009).

The same day, the agriculture direction executive says to the account manager on the phone: “The political referent has told to the agriculture direction head that she is sick of this ‘checked & approved’ issue. He has replicated clearly that there is a proper way to do things and they have to apply it” (conversation on the phone between the account manager and the agriculture direction executive, 24/06/2009).

After the agriculture direction head intervention, the political referent accepts the role of the administrative referent and copies to him her emails.

DISCUSSION

Relying on our study, we argue that routines exist in PBOs. We discuss first their antecedents and then their characteristics. Some antecedents correspond to the ones identified in the literature on organizational routines, whereas others are typical of PBO contexts.
Our analysis partly confirms the relevance of the antecedents that extant literature links to routines. Our empirical evidence points to other antecedents. First, extending and contrasting with Brady and Davies (2004), we show that routines emerge even when there is not team stability across projects. Clear role structure (Bigley and Roberts, 2001; Bechky, 2006; Ceci and D'Andrea, forthcoming) – understood as a source of stability - may well compensate the lack of team stability and favor PBO routines emergence in contexts of high turnover of actors. Clear role structure refers to shared expectations among project participants on the role of an individual holding a given position. It allows individuals to switch from one role to another across projects (Bigley and Roberts, 2001; Bechky, 2006). We build on this, linking clear role structure across projects to the emergence of PBO routines.

PBO routines take the form of procedures, namely sequences of actions necessary to accomplish a given task. Actors consider them as the way work has to be accomplished. The actions making up PBO routines are not necessarily codified in any artifact. This finding is in line with Nelson and Winter (1982) argument, according to which routines may be tacit. It is also consistent with Coriat and Dosi (1999), who argue that the detailed codification of “elementary procedures and acts” was aimed to shift the control on knowledge of operatives from the latter to higher hierarchy levels in large firms.

This finding contrasts with some recent research. Some authors consider the artifact as the procedure (see Nag et al., 2007; Canato and Brusoni, 2009). This seems to imply that if the artifact is absent, neither the procedure exists. Furthermore D’Adderio (2009; 2011) assigns a central role to artifacts - i.e. software - in explaining the internal dynamics of routines. However, the presence of software in organizations depends on the sector where the firm operates. Hence, we suggest that the procedure is not the artifact, and that artifacts themselves can contribute only partly to explain the internal dynamics of routines, given that they might not embed the actions making up the routine. In small firms performing given
types of activities, routines tend not to be codified. They characterize organizational activities, though. Actors involved in their execution recognize them as the way in which they accomplish their work.

PBO routines recur across projects that differ in terms of customer to serve and service to realize. They recur even in case of high actors’ turnover. Project similarities and clear role structure compensate the negative impact of actors’ turnover.

Extant literature considers interdependence as a characteristic of routines and as one of the standard criteria to identify them: actions composing a routine are interdependent with each other in the sense that the output of one action serves as the input of another one (Nelson and Winter, 1982; Feldman and Pentland, 2003). However, in complex organizational contexts there is interdependence among different routines (Narduzzo et al., 2000). This interdependence becomes relevant in our research. Interdependence can be either in the form of sequentiality (Thompson, 1967): one PBO routine output is the input to another one; or in the form of conditio sine qua non: an action in a PBO routine cannot take place if another action in another PBO routine has not taken place. Interdependence between PBO routines might have consequences on the time necessary to complete the project itself.

Across iterations PBO routines present sequential variety due to contextual contingencies. A comprehensive discussion of sequential variety of PBO routines requires a deep investigation of the interplay between the ostensive and performative aspect of PBO routines across iterations. This is beyond the aim of this paper. However, our data confirm Brady and Davies (2004) argument according to which a particular project require project team members to refine the routine according to the peculiarities of the project. We classify these peculiarities as contingencies pertaining to different domains: i.e. actors, project, organization and customer. This classification represents a starting point to distinguish in PBO settings exogenous and endogenous sources of routine changes (Pentland et al., 2011).
Our findings show that power distribution impedes accountability. Accountability refers to the condition that makes each actor in charge of any interdependent action understand how the responsibility of the whole task is distributed among all involved actors (Okhuysen and Bechky, 2009). It is one of the conditions that routines satisfy and that makes them achieve coordination. Extant literature points to coordination as an outcome of routines. Although we do not focus on routines outcomes, we show that routines do not bring about accountability and consequent coordination automatically. One of the possible causes is power distribution. One actor involved in the PBO routine pretends to have the power that belongs to another actor by contract. This hinders either the PBO routine or the project to unfold smoothly.

For small firm PBOs, the research suggests that a clear and shared understanding among project participants regarding the nature and importance of organizational routines, who is in charge of which actions, and when such actions are supposed to take place is crucial to routines and to overall project execution within the firm. Employers need to be sure that employees know what they are supposed to do and when. This is even more important for newly hired organizational members, which are less familiar with the organizational context. When the customer is highly involved in project activities, entrepreneurs and managers have to communicate clearly to them who is in charge of which actions, the nature of these actions and when they are to be carried out, thereby giving the customer confidence regarding the professionalism and efficiency of the supplier.

This paper presents some limitations, which point to the need for further research. We studied one small firm PBO. However, PBOs are a major set of organizational forms with heterogeneity along several dimensions, including type of sector, scope of organizational activity performed, number of organizations participating in any given project and so on. Further research into different kinds of organization and sector perhaps carefully selected to compare and contrast the effects of these dimensions would help overcome the limitation of
this work. Replicating the study in small and large PBOs operating in different sectors might help to understand how the size of firm and the sector in which the firm operates shape the characteristics of PBO routines. This could contribute to the comparison of routines across different settings, which scholars have called for recently (Becker and Lazaric, 2009).

**CONCLUSIONS**

We contribute to an initial understanding of organizational routines in PBOs both at the empirical and methodological levels. At the empirical level we show that routines not only exist, but are very important to the functioning of small firm PBOs, even where activities are not formalized. This finding makes a first step towards a more comprehensive understanding of the potential of routines to explain organizational behavior, coordination and efficiency. While we cannot generalize from a single case study, the evidence suggests that, given their importance and prevalence, PBO routines are likely to exist in similar PBO environments, including finance, advertising, consulting, design and some areas of ICT. Also, they are likely to take the form of procedures, both formal and informal, which actors perceive as the ways in which work has to be accomplished. We suggest that the type of project work and role structure may be both the antecedents and shaping forces of particular PBO routines even in the context of high employee turnover and diversity of project types. Indeed, routines appear to be one method of mitigating the negative impact of employee turnover in small firm PBOs.

Overcoming the methodological challenges of identifying and analyzing routines through empirical research has been a key issue confronting scholars in recent years (Becker and Lazaric, 2009). In line with Pentland et al., (2009; 2010) and Salvato (2009), we introduce a method to enable researchers to focus on the observable patterns of behaviors, by examining the layers of routines that are visible and actual comparing these with ‘should be’ or ostensive representations of routines. Furthermore, like these authors, we rely on workflow data.
However, rather than developing econometric methods we provide techniques to identify routines and analyzing their antecedents, characteristics, connections and functioning even in contexts where no artifacts embed routines. While still an exploratory approach, our method represents a useful step towards the detailed exploration of the nature and causes of variation in observed patterns by comparing the performative and ostensive aspects of the same routine within the same context.

REFERENCES


## Appendix A

### TABLE A1

**Customers and Projects Samples**

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Bordeaux</th>
<th>Ginger</th>
<th>Green</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer type</td>
<td>Private – Italian division of a multinational company</td>
<td>Private - local shop</td>
<td>Public - a Region</td>
</tr>
<tr>
<td>Project type</td>
<td>Order</td>
<td>Order</td>
<td>Call for tenders</td>
</tr>
<tr>
<td>Project funds</td>
<td>Customer's</td>
<td>Customer's</td>
<td>European Union</td>
</tr>
<tr>
<td>Projects number</td>
<td>5</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Project size (Service number and budget in euro)</td>
<td>1 service per project**&lt;br&gt;1&lt;sup&gt;st&lt;/sup&gt; pr. 4,500,00; 2&lt;sup&gt;nd&lt;/sup&gt; pr. 1,000,00; 3&lt;sup&gt;rd&lt;/sup&gt; pr. 800,00; 4&lt;sup&gt;th&lt;/sup&gt; 2,000,00; 5&lt;sup&gt;th&lt;/sup&gt; 1,000,00</td>
<td>1 service per project**&lt;br&gt;1&lt;sup&gt;st&lt;/sup&gt; pr. 800,00; 2&lt;sup&gt;nd&lt;/sup&gt; pr. 6,400,00</td>
<td>16 services&lt;br&gt;674,672,00 euro *</td>
</tr>
<tr>
<td>Services</td>
<td>1&lt;sup&gt;st&lt;/sup&gt; pr.: Stand personalisation&lt;br&gt;2&lt;sup&gt;nd&lt;/sup&gt; and 3&lt;sup&gt;rd&lt;/sup&gt; pr.: brochure, 4&lt;sup&gt;th&lt;/sup&gt; pr.: mailing kit&lt;br&gt;5&lt;sup&gt;th&lt;/sup&gt; pr.: leaflet&lt;br&gt;No more production activities since December 2007</td>
<td>1&lt;sup&gt;st&lt;/sup&gt; pr.: Logo restyling&lt;br&gt;2&lt;sup&gt;nd&lt;/sup&gt; pr.: press ads</td>
<td>Coordinated image; brochures; media plan; public relations; oasis in shopping centres; events organisation; press conference; campaign monitoring</td>
</tr>
<tr>
<td>Project duration</td>
<td>From a few days to some months</td>
<td>Some months</td>
<td>2 years</td>
</tr>
<tr>
<td>Previous projects for the same customer</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Regional variety</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Substantial proportion of firm activity</td>
<td>20%</td>
<td>20%</td>
<td>80%</td>
</tr>
</tbody>
</table>

* Both service number and budget are taken from the financial offer  

** Service number and budget are taken from the quotation presented to the customer
APPENDIX B

FIGURE B1
Department Activation - Ostensive Aspect

FIGURE B2
Creative Proposal Development – Ostensive aspect

FIGURE B3
Creative Proposal Refinement - Ostensive Aspect, Private Projects

FIGURE B4
Creative Proposal Refinement - Ostensive Aspect, Public Projects
FIGURE B5
Creative Proposal Delivery – Ostensive Aspect

FIGURE B6
Creative Proposal Delivery – New Ostensive Aspect For The Projects Executed For Bordeaux

FIGURE B7
Creative proposal refinement – Green political counterpart’s ostensive aspect.