Exploring the modes of organizational learning: features from the Open Factory event

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Abstract

Purpose of the paper: This paper aims to investigate the modes of organizational learning in some Italian small-medium firms that have participated in Open Factory (OF), the biggest open-doors event of industrial manufacturing culture in Italy.

Methodology: The present research is based on in-depth interviews with seven firms that participated in the OF event during the 2016 and 2017 editions.

Findings: This study highlights that firms, participating in the OF, are led to reflect deeply on their identity, characteristics, strengths and weaknesses. This in-depth reflection leads firms to improve their informational and interactive modes of organizational learning and, subsequently, portray themselves better to stakeholders.

Research limits: The limitations of this research come from the number of firms taking part in this study, choosing a single person in every firm, and carrying out the interviews after the OF event ended.

Practical implications: This study suggests to firms that want to present and portray themselves better to stakeholders to learn how to reflect on their identity and characteristics in terms of, for example, employees' skills, production technologies and products. In addition, this paper proposes a number of advantages in terms of OL provided to firms by their participation in the OF event.

Originality of the paper: In management studies the modes of organizational learning in firms remain one of the less explored topics in practical terms. This paper provides practical evidence by proposing the Italian case of Open Factory as analysis context.

Key words: informational learning; interactive learning; entrepreneurship; mentorship; network

1. Introduction

In today's competitive environment, organizational learning (OL) is a core ability (Argote, 2013; Michailova and Sidorova, 2010) that allows top management to solve problems, make decisions and develop new strategies (Dimovski *et al.*, 2008; Isaksson *et al.*, 2017). Therefore, understanding the ways firms learn represents a key challenge (Yongbin, 2011; Antonacopoulou and Sheaffer, 2014) in terms of an organizational and competitive advantage. Firms can learn in different ways. Some scholars argued that OL includes knowledge acquisition, information distribution and interpretation, as well as organizational memory (Huber,

1991; Macdonald, 1995), while others highlighted the importance of a discussion and dialogue platform to create common mental models (von Krogh *et al.*, 1994). Given that learning is based on individuals (Dodgson, 1993), modes of learning are examined in the literature in terms of both human learning (Russ, 2012) and OL (Gnyawall and Stewart, 2003).

In the former case, learning modes include learning by experiencing, watching, thinking, and experimenting while, in the latter case, informational and interactive modes can be found. Modes of OL have been proposed in theoretical terms (Gnyawali and Stewart, 2003) but they have not been examined from a practical point of view yet.

The study of the learning modes appears to be important in firms, especially in entrepreneurial firms such as family owned firms (Dess, 2011). Here learning can be hindered by context variables that characterize the entrepreneurs' decision making process. In this regard it was noted that, by virtue of their position, the entrepreneurs bear the burden of an image of omniscience that not only do not allow them to admit a need for knowledge, but also blocks any attempt to propose them different perspectives (Florén, 2003) that are the basis for the most effective learning systems (Kolb, 1976).

According to Hatum and Pettigrew (2004), this 'decision-isolation' and the lack of exposure to different perspectives limits the entrepreneur's and the firm's possibilities for learning and growth. Ozgen and Baron (2007), supported by empirical evidence (Florén, 2003), argue that external sources (mentors, informal networks, professional forums, collaborative approaches within peer groups) have a direct and positive effect on opportunity recognition by entrepreneurs and their learning processes. Nevertheless, the issue of the learning process in the entrepreneurial firms doesn't appear to have been much explored from an organizational perspective.

This paper, therefore, aims to fill these gaps in the extant literature by exploring the modes of OL in some Italian small-medium firms that have participated in Open Factory (OF), the biggest open-doors event of industrial manufacturing culture in Italy. It involves mainly a variety of firms of various types, sizes and industrial sectors.

Two are the research questions: a) Can the participation to the OF event facilitate the organizational learning of firms? and b) What are the modes of organizational learning more developed by these firms? The choice of examining OF in terms of OL depends on the opportunities of reflection and learning that OF itself creates.

The remainder of this paper is organized as follows: first, it provides a literature review about modes of learning in the entrepreneurial context; it then describes the OF initiative after which the methodological approach is explained; next the findings are presented and discussed; finally, implications, limitations and the future research agenda are proposed.

2. Literature review

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In the past three decades there has been an exponential growth in the number of academic articles related to OL. In this section, we focus on the management and organization literature offering a review of academic articles on the dimensions and modes of OL.

2.1 Epistemological and ontological dimensions of OL

OL is a broad concept (Wang and Ahmed, 2003) that has been heavily discussed for a long time. As long ago as the 1970s Argyris and Schon (1978) first focussed on OL examining in particular how, when and why OL occurs (Pedler *et al.*, 1989; Dodgson, 1993; Ben-Horin Naot *et al.*, 2004; Baškarada *et al.*, 2016).

According to Moreno-Luzon and Lloria (2008), the concepts of learning, knowledge and information are closely linked together. More specifically, "information acts as a meaningful input that generates the learning processes and constitutes the basis for acquiring knowledge. The discussion and reflection concerning these concepts and their relationships forge a link between the two concepts and integrates them into two aspects of the same reality: learning and knowledge creation. Here, learning is the process of creating knowledge and knowledge is something people learn" (Begoña Lloria and Moreno-Luzon, 2014: 693).

In the management and organization literature, OL is defined in different ways. It can basically be understood in terms of a change in a firm's knowledge (Argote and Miron-Spektor, 2011) or in terms of the capacity or the process of acquisition and development of cognitive and behavioural skills, knowledge and know-how by the firm's members (Leroy and Ramanantsoa, 1997; Koening, 1994). This does not mean that OL is the sum of each member's learning (Dodgson, 1993; Argyris and Schon, 1978). Even if learning, knowledge building, and knowledge creation are social processes (Nonaka and Takeuchi, 1995; Frid, 2000; von Krogh *et al.*, 2000) whereby firms learn through their members (Kim, 1993), OL is knowledge that is transmitted over time by means of organizational routines, procedures, norms and cultures (Nielsen, 2015). Thus, individual learning and OL are different concepts that do not exclude each other but rather complement each other. Given that 'knowledge is embodied in the people' (Leonard, 1998), individual learning provides the grounding for OL (Leroy and Ramanantsoa, 1997).

These aspects have been examined in terms of the epistemological and ontological dimensions of OL. The epistemological dimension refers to explicit and tacit human knowledge (Nonaka, 1994; Nonaka and Takeuchi, 1995; Nonaka and Toyama, 2005; Lam, 2000; Chang *et al.*, 2012). Tacit knowledge is personal, intuitive and contextual, and it can be acquired through shared understanding and practical experience, i.e. learning by doing. Explicit knowledge, in contrast, can be codified and generated through logical deduction and acquired via formal study. Essentially, knowledge creation occurs through the dynamic interaction and combination of tacit and explicit knowledge.

The ontological dimension, on the other hand, includes different levels of learning by individuals, groups and organizations, exploring their interaction (Lam, 2000; Dodgson, 1993). Thus individual learning is knowledge of the firm owned by each of its members in terms of ideas and skills. Group learning includes the ways knowledge is distributed and shared among members of a firm such as routines and knowledge bases. Individual and group learning feed OL through which people change their shared mental models (Senge and Sterman, 1994). These three ontological levels highlight that the OL process is dynamic in nature.

Another definition of OL highlights that it occurs as firm acquires experience. According to Levitt and March (1988: 319), OL is "the learning from direct experience, how organizations learn from the experience of others, and how organizations develop conceptual frameworks or paradigms for interpreting that experience". This link between knowledge and experience (Davenport and Prusak, 1998; Leonard and Sensiper, 1998) emphasizes the importance of the experiential learning approach (Kolb, 1984), examined more at individual (Kolb and Kolb, 2005) rather than organizational level.

2.2 Human and organizational learning as modes of learning

"A mode of learning is a systematic organizational process through which shared understanding is enhanced in organizations" (Gnyawall and Stewart, 2003: 69). In literature, this topic is examined in terms of both human learning and OL.

From the human learning point of view, experiential learning theory (Kolb, 1984) argues that people learn through a recursive, holistic, and dialectic cycle of four learning modes: concrete experience, reflective observation, abstract conceptualization, and active experimentation. More specifically, concrete experience is learning by experiencing, given that people learn through immediate, receptive, involving and here-and-now experiences. Reflective observation is learning by watching the attitudes, thoughts, and/or behaviours that emerge during the concrete experience. These observations from the concrete experience lead people to abstract conceptualization, based on learning by thinking, given that people conceptually build an idea, generalization, or personal theory to critically analyse, elaborate new implications for action, and draw conclusions. Active experimentation is connected to concrete experience and it enables one to reassess one's attitudes, thoughts, or behaviours into future situations and new experiences.

These four learning modes can be subsumed into the following two dimensions:
1) the perceiving (or 'grasping experience') dimension that includes concrete experience and abstract conceptualization, and
2) the processing (or 'transforming experience') dimension that includes reflective observation and active experimentation.

From the OL point of view, there are essentially two learning modes; informational and interactive. The informational mode of learning is a structural process developed by a firm to acquire, analyse, distribute, share,

and store information in its memory (Huber, 1991; Walsh and Ungson, 1991; Macdonald, 1995). This learning mode is based on the following aspects:

a) acquiring information gained from outside the organization;
b) learning from the experience of other firms;
c) gathering new and explicit data;
d) taking an adaptive learning approach;
e) developing analytical and structural learning (Gnyawali and Stewart, 2003).

The interactive mode of learning is instead a social process highlighting the importance of a firm's interactions inside and outside the organizational boundaries to develop shared understanding (Brunetti *et al.*, 2018) "in an effort to resolve and make sense of multiple interpretations of events" (Nonaka, 1994; Senge, 1990; von Krogh *et al.*, 1994, cited in Gnyawali and Stewart, 2003, p. 71). This learning mode is based on dialogue among firm's members, learning from direct experience, simulating experience, learning while innovating, and learning from discovery, exploration and experimentation.

This study analyses if, and how firms could develop different modes of OL through their participation in the Open Factory event.

3. The Open Factory event

The OF event is the biggest open-doors event of industrialized manufacturing culture in Italy, in which many companies are involved.

The idea was born in 2015 from two historical cultural events supervised by the promoter of OF in collaboration with some local public organizations called "Festival Città Impresa" and "Salone Europeo della Cultura". In particular, "Festival Città Impresa" was an event where entrepreneurs, opinion leaders and local actors debate about economy, politics and culture. It provided for the "Open Factories" day which enjoyed a lot of interest from visitors. "Salone Europeo della Cultura" was a project aimed to build a system of relations through the creation of cultural events. It promoted craft shows edited by artisans showing the production process of a product (a table, a vase, a mosaic etc.). This proposal involved directly the audience that it expressed the wish to visit directly the "places of doing". So, in 2015, from the original idea of the "Festival Città Impresa", the format of the "Salone Europeo della Cultura" was transformed in the OF event.

The participating firms open their doors to everyone who wishes to live an unconventional experience between the production lines of a plant, a construction site or another business place. During these encounters the firms' story is told to the public, each in their own way, by the founder and/or their employees.

OF is a cultural event that is based on an intense interaction of several public and private local stakeholders. The participants in this event are: 1) VeneziePost, the organizer and promoter of the 2015, 2016 and 2017 editions (from the 2018 edition the promoter and organizer is ItalyPost),

2) firms (50 in 2015, 72 in 2016, 50 in 2017, 50 in 2018), 3) audience (more than 10,000 visitors in 2015, 15,277 visitors in 2016, approximately 20.000 in 2017 and more than 20.000 visitors in 2018), 98% from the North-East of Italy in the first three editions and in 2018 from many other Italian regions (from Lombardy to Friuli Venezia Giulia, from Piedmont to Tuscany, from Veneto to Emilia Romagna and Umbria), and 4) partners (including main partners, sustainability partners, patrons, collaborators, media partners) who view OF as a platform that enables them to get in touch with many firms.

VeneziePost is a non-political network for reflection, observation, analysis and study that looks at the North-East of Italy as a socio-economic laboratory. It is based on a complex network of more than 300 members (private subjects, local associations and institutions) and promotes/ organizes about 100 events, with a function of news aggregator and place for discussion and analysis. Within OF, VeneziePost performs the following activities:

a) it defines the communication plan (website, social campaign, printed guide, relationship with the press, interface with the public until the day of the event);

b) it provides firms with a info-communication kit with which firms can promote OF in coordination with VeneziePost;

c) it directs and coordinates the events promoted as part of OF;

d) it draws up, in collaboration with each participating firm, the program of activities that each firm chooses to offer the public;

e) it manages the visitor registration to the event; and

f) it facilitates the comparison between the various business experiences and encourages the relationship between those participating, either in the pre- or post- event, by trying to promote ways for cooperation and stimulating firms in a positive perception of belonging to a unique phenomenon and to a ever developing network.

The firms involved in OF operate in different industries, from mechanics and mechatronics to green innovation factory, from manufacturing to logistics, construction and craft workshops, from design to food and wine, from furniture to healthcare, from goldsmith industry to services. These include small, medium and large enterprises, in addition to company museums. All these companies are characterized by a common 'open approach', i.e. they have a philosophy of openness and sharing. If a firm wanted to put limitations on the visit, for example, for fear of imitation, it would not be allowed to join the network because it would not be able to represent the true spirit of the initiative. Among the participating firms, 40% had already established a working relationship with VeneziePost, 30% have been reported by observer experts (e.g., teachers and journalists), while the remaining 30% heard of the event and decided to participate. Moreover, all the participating firms are entrepreneurial in nature (second and third generation): the entrepreneur wishing to be at the forefront in the story. These companies feel an ethical duty to share their history and their social values.

From an organizational point of view, firms participating in OF offer visitors an unconventional experience of knowledge about their history

and business through a program of activities which can include guided tours of the production departments and laboratories, workshops, talks, book presentations, and special events. Each business event is generally organized for a Sunday afternoon and can last more than four hours during which each firm, inter alia, presents and describes itself, displays what it does, shows their accomplishments in progress or completed, tries to exhibit a building in an original way, explains how their products are made, teaches visitors how to read a label in order to promote an informed purchasing choice and offers tastings of their products.

4. Methodology

4.1 Research strategy

The present research was conducted following an inductive and phenomenon-driven approach, that generally allows to test a theory, motivate a research question, inspire new ideas and, ultimately, generate a new theory by starting from a concrete business case (Gioia *et al.*, 2013; Klag and Langley, 2013; Eisenhardt *et al.*, 2016). This method was chosen for the uniqueness and importance of the case we encountered, which represented a phenomenon so particular that was considered worthy of interest for scientific research.

This study was based on interviews with seven Italian firms participating in the OF event in order to investigate their modes of OL. The singularity of the event under examination justified such a choice. We did not start from a literature review according to a gap-spotting approach (Alvesson and Sandberg, 2011), but we rather observed an innovative business experience following a discovery-oriented attitude. Therefore, we gained significant insights both in theoretical and practical terms.

Without disregarding the requirements needed to ensure an acceptable degree of rigor in our research (Eisenhardt and Graebner, 2007; Gibbert *et al.*, 2008), we prioritised the relevance dimension (Lorsch, 2009; Pfeffer, 2009). Such a dimension is more suitable to yielding more practicable knowledge (Gephart, 2004), as it ought to be with management research (Gummesson, 2001; Bartunek *et al.*, 2006) as theory should not just result in a "purely self-referential exercise rather than as an attempt to better understand the world" (Siggelkow, 2007, pp. 23-24).

4.2 Data collection and analysis

After contacting and interviewing VeneziePost (the promoter and organizer of the event in the 2015, 2016 and 2017 editions), we proceeded to set up appointments for semi-structured in-depth interviews with each respondent firm to obtain detailed information in accordance with the aims of this study. Table 1 gives information on the seven firms considered. Based on time and availability of the informants, telephone and face to face interviews were conducted. This meant that we could not capture human emotions; however, it decreased the risk of the interviewer affecting the

interviewees' responses (Silverman, 2011). Each interview lasted from 60 to 240 minutes. The interview questions were the four following: a) Why did the company choose to participate in the Open Factory event? b) What has the company offered to the visitors? c) In what ways has the company applied its learning or what has it learned that it is considered useful to introduce into the organization? d) In terms of OL, what advantages has the company obtained through its participation in the Open Factory event?

Tab. 1: Main information about firms interviewed

Name	Location in Italy (foundation year)	Core business	Interviewed	Proposal in OF
Carraro Group	Campodarsego, Padua (1932)	Systems for the transmission of power and agriculture equipment	Head of Communication and Senior Specialist of Communication	Guided tour of the production sector of the plant involving employees as guides. Visit of a photo exhibition about the firm's origins. Aperitif with musical entertainment. Possibility of memento photo with the tractors exhibited
Dolciaria A. Loison	Costabissara, Vicenza (1938)	Pandoro, panettone, colomba and other baked goods	President	Guided tour of the production site, visit to the multifunction hall usually dedicated to conferences, visit to the corporate museum, and tasting products as a final part of the visit
Grandi Molini Italiani (GMI)	Venice (1921)	Flour milling and bakery	Product marketing and communication manager	Presentation of the firm and its products (flour). Visit to the different departments: laboratories, packaging, automated warehouse and mill
Seguso Vetri D'Arte	Campiello San Maffio a Murano, Venice (1397)	Custom-designed lighting and furniture for the residential sector, international hotel chains; private label production for major luxury and fashion brands	CEO	'Seguso experience': a multi-sensory journey guided by the Seguso family. Guests visit the furnace where they are able to observe the master craftsmen at work and attend glass processing steps. Visit to the archive and final discussion
Unox	Cadoneghe, Padua (1990)	Intelligent and technologically advanced ovens, services and experiences for all businesses	Digital Public Relation, Marketing and Communication manager	'Live Show Cooking' with Corporate Chef and the use of ingredients and recipes of the firm. Participants taste the 3-course Gourmet meal created by Corporate Chef. 'Live Experience': the participants try their skills in making pastry
VeneziePost	Padua (2004)	Platform for meetings and discussion to provide adequate services to the world's business growth	Programme Director	Definition of the OF program along with the participating firms, promotion of OF, management of the visitor registrations and production of the OF brochure

Source: Our elaboration

Based on the approach of Eisenhardt and Graebner (2007) data collection was performed by multiple investigators. The collected data were later discussed together among the researchers. Given the exploratory nature of the study, this choice allowed the maximum possible breadth of interpretations, thus enriching the resulting research with different insights.

The interviews were audio recorded and later transcribed and checked for accuracy. To examine the data, conventional content analysis was undertaken (Stemler, 2001) via Qualitative Solutions and Research (QSR)

NVivo 10 software. In this regard, we made flow categories from the data by avoiding using preconceived categories (Kondracki and Wellman, 2002) and, only subsequently, we associated the categories emerged from data to names for categories about the modes of OL defined by Gnyawali and Stewart (2003). The coding of themes was inductively carried out (Saldana, 2009) in relation to the study's purpose. Table 2 presents the research findings.

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Tab. 2: Modes of OL: description and application in the entrepreneurial firms

Modes of OL	Description	Application of the mode of OL in the entrepreneurial firms
Informational mode	- Reflection about existing methods of acquiring, distributing, and interpreting information - Refinement of what is already known and transferring the knowledge to other individuals in the company	- Obtaining information from different stakeholders - Learning from the experience of other organizations - Developing analytical and structural learning
Interactive mode	- Stimulation of the entrepreneur to reflexive knowledge of the firm's history, future prospects, elements of differentiation - Activation of a 'process of dialogue' among organizational members - Experimentation with different set-ups for some internal spaces and different roles for people within the firm - Strengthening of a form of social learning gathering opinions, feelings and perceptions of the visitors on the business reality - Promotion of learning from a direct experience, for example in the case of organizational change or as an instrument of organizational intelligence - Realization of learning from a simulating experience (for example a training or socialising experience) - Support of learning from insight development and discovery - Development of tacit knowledge - Development of embedded knowledge in the minds of company members, in their social relationships, in norms, attitudes and information flows	- Acquiring the right way of communication with stakeholders, understanding how to succeed in focusing the objectives and the contents to be transmitted during OF - Suspending own judgments, assumptions and theories-in-use and thinking as a team - Adopting different points of view by grasping more strongly the character of the intra and inter organizational interdependence - An overall understanding of the real-time relational and competitive environment in which the firm operates - Learning can improve performance, and thus intelligence, as confirmed by studies of learning by doing, by case observations, by theoretical analyses - Designing or performing structured experiences and measuring targeted teamwork competencies and learning objectives - Implementing knowledge in an active way, from an explicit 'know what' to an implicit 'know how' and even 'know why', in order to create new knowledge through discovery and reflection - Working at different stages with different people to make a multi-sensory message, in an unconscious way - Reflecting on how the company can improve its competences and capabilities

Source: Our elaboration

5. Findings and discussion

5.1 Informational mode of OL

Given that OF is not a trade exhibition or a business-to-business exchange with people that already know that specific industrial area, firms that participated in this event need to build a communication path suitable to portray themselves in a new and unusual way. To better learn how they

can focus on the main objectives and content to be transmitted, the firms need to reflect on their existing methods of acquiring, distributing, and interpreting information. More specifically, the firms interviewed have obtained informative and operational support from different stakeholders. The Carraro Group highlighted this by commenting:

> 'We have learned to acquire information on how the registration to the event can be carried out through the help of VeneziePost, how to organize the event with experts, how to ensure safety, and how to manage the children's entertainment during the corporate visit'.

In addition, they have gained information from outside the organization, also by learning from the experience of other organizations. In addition, Carraro Group stated:

> 'We have created contact opportunities with other firms such as Birrificio Antoniano and Loison that have collaborated during OF. Seeing their relationship enabled us to understand that we too can develop relationships with some firms that have a mindset similar to ours'.

In order to prepare each event, firms develop analytical and structural learning. They study in detail how they can better portray themselves by examining what information is important to collect, who should be involved, what roles are required, how to redefine the functionality of the interior and exterior spaces in the company, how to articulate the visit proposal, the timing of the event and handle the flow of visitors. In this regard, Carraro Group stated:

> 'To portray ourselves in the best way, we have chosen to make use of technical and institutional guides and we learned how to organize the event in detail. We have tried to be analytical in all phases of the planning of the event, such as training of work teams, promotion of the recruitment of employees who participated voluntarily in the various activities, definition of roles within the event management team and establishment of equal rules for everyone'.

The choice of these firms to present and portray themselves to firm's members and stakeholders has led these firms to refine what they already know about the firm and what information it is important to transfer to other individuals and units of the firm. Grandi Molini Italiani stated this as follows:

> 'We have strengthened our firm's know-how about the events organization and communication. In addition, the direct dialogue with consumers always brings ideas and consumer insights as well as perceptions that they have about the company and our products'.

5.2 Interactive mode of OL

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Interaction is a critical component in reconciling conflicting perspectives and in developing shared understanding. All firms interviewed have seen, through their participation in OF, an opportunity to interact inside and outside their organizational boundaries. An in-depth analysis of their experiences in Open Factory has led to the identification of a number of instances of the interactive mode through which participating firms realized organizational learning. These modes include: 1) reflexive knowledge, 2) process of dialogue, 3) social learning, 4) organizational learning from direct experience, 5) learning from simulating experience, 6) learning from insight development and discovery, 7) development of tacit knowledge, and 8) development of embedded knowledge. Each of these is described in more details as follows.

1. The interaction with VeneziePost has been important to acquire the right way of communication with stakeholders, also leading the entrepreneur to reflexive knowledge (Schirato and Webb, 2002). Indeed, within the context of OF, they needed to adopt a way of communication that was different from the one used for trade exhibitions or for a B2B exchange with experienced industry partners. The interaction with VeneziePost has been important to better understand how to succeed in focusing on the objectives and the contents to be transmitted. VeneziePost has supported them in defining the 'narrative plot' to be proposed. This kind of commitment has often implied for the firm the necessity of deep internal reflection. After an initial contact, aimed at understanding the firm's history, its future prospects and its elements of differentiation, VeneziePost usually helps to define the format which each firm can use to enhance the experiential dimension of visitors during OF. In this regard, VeneziePost activates with the firm a process of reflection, discussion and knowledge exchange, often with a Socratic approach, aimed at outlining a proposed 'trip' through which the public can discover the firm's history and its social value.

2. A second interactive mode of OL is the 'process of dialogue' among organizational members. When engaged in dialogue, team members suspend their own judgments, assumptions and theories-in-use and genuinely think as one.

   In this regard, managers organizing the participation of Carraro Group in the OF event promoted a coordination meeting with the company guides of visitor groups and together developed the planned tour of the firm. This commitment has enhanced the interaction among internal personnel belonging to different corporate levels. As Carraro Group highlighted:

   > 'It was great to see entering the factory in the production area for the first or second time, someone who is only concerned with numbers or finance or administration; it was a way for executives to see the factory workers.

   Besides, they learnt through some organizational experiments the uses of spaces and the roles of people. Imagining different set-ups for some of its spaces and experiencing roles different from those which

these workers perform during their ordinary professional life, the adoption of different points of view has been facilitated helping to grasp more strongly the character of the intra and inter organizational interdependence. In OF, Carraro Group has interpreted different spaces and roles from those usually adopted. As they stated:

'The firm has, for example, turned the entrance area in a space dedicated to the reception of visitors. It has created a play area for children where personnel walk to reach their offices during their daily work routine and an outside area has been set aside for a purpose of designed photo exhibition and to exhibit the firm's tractors. The canteen has been completely rearranged to provide a buffet and musical entertainment. Moreover, several corporate figures have voluntarily covered different roles: coordination team, reception staff, internal security service, technical guides and R&D guides'.

3. Through observation and interaction, entrepreneurial firms have strengthened a form of social learning because they were able to gather the level of satisfaction of the visitors, their opinions, feelings and perceptions on the business reality, its organizational aspects and products. This can contribute to the firm's overall understanding of the real-time relational and competitive environment in which it operates. In this regard some interviewees commented:

'We learned that communicating with people is both positive and necessary to capture perception of our brand outside the enterprise' (Loison).

'Our offering and the good experience of visitors triggered a positive word of mouth' (Unox).

The companies analysed in this study have put their reasons of success down to OF public learning at several nested levels within the organization. They were prompted to consider if and how they might change or refine some organizational routines in order to improve competencies, behaviors, procedures, outcomes and strategies.

4. Organizational learning from direct experience is a useful perspective to describe organizational change but it is also an important instrument of organizational intelligence. The speculation that learning can for example improve performance, and thus intelligence, of organizations is confirmed by numerous studies of learning by doing, by case observations and by theoretical analyses.

Grandi Molini Italiani has focused on an important objective in terms of improvement of internal relationships and strengthening the sense of belonging that is a form of organizational intelligence.

5. Some firms have also realized a learning from simulating experience. Simulating substantial aspects of an experience (for example a training or social experience) can be used as a platform to provide a valuable tool in organizational learning. It can enable retraining and practice until one can master the procedures or skills. It can be applied in designing or performing structured experiences and it can be used as a measurement tool linked to targeted teamwork competencies and learning objectives as well.

Teamwork training in a simulated environment may offer additional

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benefits to the traditional didactic instruction, enhancement of performance, error reduction and the development of trust and attitudes. The Carraro Group staff have waited for OF with great trepidation, afraid to look bad to their families, colleagues and top management. They simulated the experience aiming at excellent event management.

Their simulations have helped the organization to understand how to improve the management of other important corporate events such as inter alia road shows and participation in trade exhibitions.

6. The research has also highlighted the concept of learning from insight development and discovery, implementing knowledge in an active way which involves a shift from an explicit 'know what' to an implicit 'know how' and even 'know why', in order to create new knowledge through discovery and reflection. Organizational learning can occur if learning agents' discoveries, inventions and evaluations are embedded in the organizational memory that is the means to retain and transmit information from past to future members. Carraro Group has acknowledged the role of organizational memory and its impact on OL, stating:

    'With some photos recovered from a storeroom, we set up a photo exhibition illustrating the history of the firm and the plant built in the 60s in the architectural style of the Carlo Scarpa school.
    We understood that it is important to archive our photographic material and create a firm archive, useful for preserving and transmitting the memory of our firm and its entrepreneurship'.

7. A further interactive mode of OL is to develop tacit knowledge. Learning occurs largely without the explicit intention to learn and in many cases without feedback from the environment to guide the learning process. As the CEO of Seguso Vetri D'Arte commented:

    'No employee learns a script, he expresses his knowledge of the company in his own words to make a multi-sensory message, in an unconscious way'.

8. A very important concept experienced in some of the cases analyzed is learning to develop embedded knowledge, that resides in specialized relationships between individuals and groups, in norms, attitudes, information flows, ways of making decisions that shape their dealings with each other.

    Carraro Group has learned some complex skills and knowledge embedded in the minds of its members and in the formal and informal social relationships that orchestrate their efforts and has reflected about how it can improve its competences and capabilities.

6. Implications and conclusions

This study highlighted how entrepreneurial firms have developed both informational and interactive modes of organizational learning through their participation in the Open Factory event. This study found that modes of OL in a firm occur in response not only to competitive pressures associated with technological changes, changes in customers' values or

environmental uncertainty (Grossan *et al.*, 1999), but also to meet the needs of internal and external communications, when the companies have to interact with stakeholders inside and outside their organizational boundaries.

OF provided these entrepreneurial firms with the opportunity for in-depth reflections on their strengths and weaknesses, allowing them to develop systematic organizational processes of learning under the guidance of a mentor (VeneziePost, and ItalyPost from the 2018 edition). More specifically, the firms interviewed highlighted that they have been able to present and portray themselves better to (internal and external) stakeholders once they learned to reflect on their identity and characteristics in terms of, for example, employees' skills, production technologies and products. Moreover, they were able to refine what they already knew about themselves. In this sense, this research supports the study of Piaget (1974) who found that learning is triggered by awareness.

In addition, the firms interviewed for this study learned to portray themselves better to stakeholders through a guided path of internal discovery of their core characteristics through the inspiring and supporting role of VeneziePost. The Socratic approach of VeneziePost has been crucial to enable firms participating in OF to define their identity better, trigger real processes of reflection about themselves and, thus, present themselves in effective ways to local stakeholders, supporting the idea of mentoring as a mean of learning. Although the literature about mentoring appears mostly limited to the internal interpersonal relationships (e.g., Ozkalp *et al.*, 2008), more recently, reports of support experiences to the enterprise by external mentoring figures appear also in the technology transfer literature (Giaretta, 2014). The findings of the study support the importance of using mentoring to transfer knowledge (Swap *et al.*, 2001) and reveals the mentoring mode as an additional mode of OL, particularly suitable to entrepreneurial firms, given that it helps entrepreneurs overcome learning obstacles (Florén, 2003) such as decision isolation (Hatum and Pettigrew, 2004).

More generally this study draws attention to the OF event as an external (and social) context that not only helps overcome the learning obstacles of firms, especially entrepreneurial firms, but also facilitates learning by peer modes. In particular, this context can be seen as an external source, much more effective than a trade fair and able to have a direct and positive effect on opportunity recognition by entrepreneurs (Ozgen and Baron, 2007), affecting mostly their learning processes. This research thus confirms the interactions outside organizational boundaries as an interactive mode of learning.

In summary, this paper offers empirical evidence to support conceptual studies about informational and interactive modes of OL, providing some clues for reflection to future studies about organizational learning. In fact, firms experimented with different informational and interactive modes of OL through their participation in the OF event, with a predominance of interactive modes, allowing us to conclude that these are particularly suitable for presenting and portraying themselves to stakeholders.

A number of advantages in terms of OL are provided to firms that in the future will participate in events such as OF. More specifically, some advantages are the following:

a) mutual knowledge between different organizational units is fostered along with an improved and greater efficiency of internal communication;

b) shared experiences among organizational members develop, sharpen and renew the sense of purpose and of belonging, pride and motivation held by employees, and co-creates the organization's vision and strategy (Taylor *et al.*, 2002);

c) developed ability to better know itself and increase internal awareness within the firm about its history, culture, role and social value;

d) new forms of interaction outside organizational boundaries with (local) stakeholders are acquired to facilitate business opportunities, also due to involvement in the OF network. In this last regard, this study highlights that an exchange of knowledge and ideas among more firms can create opportunities for partnerships (Kreiser, 2011) and co-branding and new forms of storytelling that we can call co-storytelling.

This research is of course not without limitations. Given that OF is a recently started event and it is still in its infancy, the findings are necessarily related to its current evolutionary stage. In addition, OF is a very singular initiative and it is strongly entrenched in the Italian social and cultural context. Accordingly, the generalizability of the findings of this study have to be carefully evaluated.

As for the research procedures themselves, the first limitation comes from the number of firms taking part in this study: six firms is a sufficient number but, of course, the more firms involved the better the study would be. Secondly, we talked to just a single person in every firm, namely the male or female entrepreneur or their assistant. The research would benefit from a larger number of interviewees in every company. Finally, it must be considered that our research took place shortly after the OF event ended. It may be that a longer passing of time would change the informants' perceptions of the meaning, advantages, disadvantages and overall effects of OF. Future research could overcome each of these limitations, through a larger sample of firms, a larger number of interviewees in every firm and a greater elapsed time span since the firm's participation in the initiative.

In the end, the story by the protagonists of the OF event, aimed at increasing their visibility, knowledge and their awareness and ability to build networks, could be an important contribution to define a social media communication strategy to support or precede meetings physicists during the event.

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