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### Ambidexterity in Service Organizations: Reference Models from the Banking Industry

Marco Marabelli <sup>a</sup> , Chiara Frigerio <sup>b</sup> & Federico Rajola <sup>b</sup>

<sup>a</sup> Bentley University, Waltham, MA, USA

<sup>b</sup> Cattolica University, Milan, Italy

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Research Paper

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# Ambidexterity in Service Organizations: Reference Models from the Banking Industry

MARCO MARABELLI\* CHIARA FRIGERIO\*\* & FEDERICO RAJOLA\*\*

\*Bentley University, Waltham, MA, USA, \*\*Cattolica University, Milan, Italy

**ABSTRACT** This paper reviews the literature on ambidexterity in service organizations with a specific focus on the banking industry. We identify three key, cross-unit bank processes: governance (bank headquarters), sales (branch processes) and operations (ICT and facilities to support local (branch) and inter-unit (headquarters-to-branch) tasks). We suggest a framework that incorporates three main “reference models”, from an organizational design perspective. Model 1 (exploitative model) applies when the bank’s headquarters work to formalize branch sales processes supported by operations processes. Model 2 (exploratory model) applies when the bank’s headquarters allows flexibility in branch sales processes and uses operations processes to decentralize tasks. Model 3 (ambidextrous model) applies when a branch incorporates the characteristics of Models 1 and 2 simultaneously. We ground our claims using fieldwork conducted in 2004–2005 that involved a number of major Italian banks. We show that while large organizations, such as banks, base their ambidextrous innovation on organizational design, contextual elements such as trust and commitment, and management styles and leadership play a role in dealing with efficiency-oriented vs. flexibility-oriented tasks within the same bank branch.

KEY WORDS: Ambidexterity, process innovation, banking industry

## Introduction to and Motivation for the Study

The recent literature on innovation includes valuable contributions on the creation and management of novelty in successful firms (Bessant *et al.*, 2005; O’Reilly and Tushman, 2007; Slater and Mohr, 2006; Roberts, 2007) and work on how structures (i.e. organizational design) on the one hand and contexts (i.e. culture and behaviors) on the other hand, can influence their dynamics.

A stream of research in the management literature focuses on support for multiple innovations, and investigates different long-term innovation strategies (March, 1991; Benner

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Correspondence Address: Marco Marabelli, Management, Bentley University, 175 Forest Street, Waltham, MA 02452, USA, Tel.: + 1 617 817 8503; Email: mmarabelli@bentley.edu

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and Tushman, 2003; Holmquist, 2004). According to this literature, successful firms innovate by exploring new products, services and competences, and exploiting existing ones (Katila and Ahuja, 2002; He and Wong, 2004). Specifically, March (1991: 71) argues that “exploration includes things captured by terms such as search, variation, risk taking, experimentation, play, flexibility, discovery, innovation. Exploitation includes such things as refinement, choice, production, efficiency, selection, implementation, execution.” Since exploration is associated with experimentation and variation in processes, knowledge and routines, it has been assumed that it is a long-term activity, while improvements to existing knowledge and processes involve shorter periods of innovation activity (March, 1991; Levinthal and March, 1993; Tushman and O’Reilly, 1996; O’Reilly and Tushman, 2007). Organizational differentiation sustains both types of innovation strategy in terms of capabilities, such as routines, competences and skills (Adler *et al.*, 1999), considered as dynamic sources of competitive advantage (Teece, 2006; O’Reilly and Tushman, 2007). Exploration also requires flexibility and autonomy, which implies organic structures, while exploitation requires stability and efficiency, which imply mechanistic structures (Burns and Stalker, 1961). Dealing with flexibility and efficiency represents an organizational tradeoff (Thompson, 1967).

In this paper, we concentrate on structural ambidexterity in service organizations. Specifically, we identify a framework that includes three reference models that focus on the banking industry, and describes, from an organizational design perspective, how the branches of banking organizations should be configured in order to support exploratory and exploitative innovation. Our focus is on innovation in processes, since service organizations and the banking industry in particular do not patent their innovations with the result that tangible products (i.e. new ATM-enabled facilities, lower mortgage interest rates) are easily replicable by competitors. Banks however also concentrate on process innovation, the results of which are hidden and more difficult to imitate. Our analytical model describes two branch processes (sales and operational) and one headquarters process (governance).

Our framework is supported by the results of fieldwork conducted by the authors in collaboration with the National Association of Banks (ABI) and Financial Institutions. The fieldwork was conducted over a period of two years (2004 and 2005) and, although much of the data has been published in industry-related national journals, this paper presents a unique conceptualization of the information collected by the researchers.

The paper is structured as follows: we start reviewing the literature on ambidexterity in service organizations and process innovation; then we introduce our reference framework that is supported by fieldwork conducted in the Italian banking industry that we use to discuss the implications of theoretical claims. Finally, we draw some conclusions and suggest avenues for further research on the basis of the findings from this study.

### **Ambidextrous Innovation in Service Organizations**

According to March (1991), organizations should pursue both exploitative and exploratory innovation. Although there is agreement about the need to balance these two types of innovation, opinion is divided about how this balance should be achieved (Gupta *et al.*, 2006; Reisch and Birkinshaw, 2008). Some argue that exploration and exploitation are separate processes, and involve long exploration periods and short exploitation periods (Levinthal and March, 1993; Brown and Eisenhardt, 1998). Others argue for the achievement of

a balance, based on outsourcing strategies and external alliances (Holmqvist, 2004; Lavie and Rosenkopf, 2006). While the earliest contributions in this literature argue that simultaneous tradeoffs are impossible to achieve within a single firm (Lawrence and Lorsch, 1967; Hannan and Freeman, 1977; Lewis, 2000), the ambidexterity literature considers a strategy involving parallel pursuit, in house, of both exploitation and exploration (Tushman and O'Reilly, 1996; Gibson and Birkinshaw, 2004).

Since the beginning of the 1990s, the literature on ambidexterity has been divided between the two main streams of research of structural and contextual ambidexterity. On the one hand, there are those authors who argue that ambidexterity can be achieved using formal organizational structures (drawing on Duncan, 1976), and who suggest that the same organization can house departments that engage only in exploration or in exploitation (Galbraith, 1982; Drucker, 1985; Tushman and O'Reilly, 1996). The underpinning idea is that (independent) organizational units should obtain the "best-fit" configuration for their specific task environment (Lawrence and Lorsch, 1967), and that, in turn, integration processes need to be set to pursue organizational ambidexterity (Thompson, 1967). On the other hand, there are those authors who argue that ambidexterity is based on contextual factors, and requires alignment and adaptability within the same organizational unit of the firm (Gibson and Birkinshaw, 2004). For instance, Adler *et al.* (1999), using the NUMMI case study, show that meta-routines and job enrichment are effective organizational mechanisms, and allow the pursuit of efficiency and flexibility within the same unit. In this paper, we refer to ambidexterity as the capacity of a firm to conciliate the "paradox of administration" of efficiency and flexibility (Thompson, 1967) that emerges from a combination of mechanic and organic features within the organizational boundaries (Adler *et al.*, 1999; Sheremata, 2000; Jansen *et al.*, 2005).

#### *Process vs. Product Innovation*

A product is the good or service offered to a client; a process is the mode of production and delivery of the good or service (Barras, 1986). Rogers (1995: 34) describes process innovation as "a new product, process, distribution method, or a new combination of products, processes, pre-existing distribution methods which are perceived to be new for the organization that sets them up". In order to categorize patterns of innovation, we adopt the concepts of exploitation and exploration used in the innovation management literature (March, 1991; Benner and Tushman, 2003; Holmqvist, 2004). According to this literature, firms innovate by exploring new products, services and competences, and exploiting existing ones (Katila and Ahuja, 2002; He and Wong, 2004). Consistent with the literature (Knight, 1967; Utterback and Abernathy, 1975; Ettlie and Reza, 1992), we define *product innovation* as new products or services that incorporate a set of characteristics (Lancaster, 1996); product innovations are described as radical if the outcome is a completely new product, different existing availability, and as incremental if it represents an improvement to an existing product (Gallouj and Weinstein, 1997) and is introduced to satisfy an external user or market need. We define *process innovation* as new elements introduced into an organization's production or service operations—material inputs, task specification, work and information flow mechanisms, and the equipment used to produce a product or render a service. Process innovation is radical if it involves implementation of a completely new process, and incremental if it improves the efficiency of an existing process. Following Damanpour and Gopalakrishnan (2001: 47–48), process innovation is "a new element

introduced in the organization in order to produce a good or deliver a service". From a temporal perspective, Miles (1994) suggests that the difference between a service and the process that supported its development may be ambiguous, since services, once produced, are generally consumed. Utterback and Abernathy (1975) argue that process innovation and product innovation differ in that the latter is aimed either at new markets or the maintenance of existing ones, while the former is aimed at internal economies of scale, optimization, profitability and the launch of a new service. They argue also that product innovation is market focused and primarily is client driven, whereas process innovation is internally focused and primarily is efficiency driven (Utterback and Abernathy, 1975).

### *Process Innovation in the Banking Industry*

The process innovation literature is vast and mainly investigates the scope of the innovative process (Davenport and Short, 1990; Davenport, 1993). Total Quality Management (Spencer, 1994), Supply Chain Management (Chandra and Kumar, 2000) and Business Process Re-engineering (Hammer and Champy, 1993) all describe perspectives on and activities aimed at innovation in organizational processes to establish and maintain competitive advantage. The literature on these practices converges in understanding the relevance of process as an innovation domain, but reaches no consensus on the management of innovation as a continuum rather than a disruptive practice, or on its incremental vs. radical effects (Barley, 1986; Tsoukas and Chia, 2002). Benner and Tushman (2003) suggest that, in periods characterized by quick environmental changes, it is crucial to develop dynamic capabilities to maximize short-term performance (i.e. efficiency). However, the focus on process management might represent a hindrance for long-term innovation because "as process management techniques reduce a firm's exploratory activities, its absorptive capacity will be stunted" (Benner and Tushman, 2003: 243). Debating the dichotomy in process management and its effects on process innovation is beyond the scope of this study. Here we propose a new framework that accounts uniquely for the coexistence of exploration and exploitation (Van de Ven and Poole, 2005).

To achieve this, we apply the concept of ambidexterity to process innovation in the Italian banking industry, and argue that our findings might be extended to all organizations where process quality (in terms of its efficiency and its flexibility) is a determinant of better financial performance. We assume also that in most large industries the process domain is relevant, since firms continually search to increase competitive advantage through the delivery and production of goods, rather than through actual product innovations. Organizations can produce product innovation by improving or changing their underlying processes and means of delivery, for example, by combining them, implementing price differentiation strategies, defining new or better ways of provision, or by identifying new markets or delivery channels. Since 2000 *there has been a shift in the focus in the innovation domain from product to process*, a shift that has been conditioned by internal factors, such as strategy changes and employee turnover, and external factors, such as client needs and local/international regulation (Frei *et al.*, 1999).

Reviewing the strategic management strand within the organizational design and innovation literature shows that scholars that focus on processes within firms highlight the need to balance innovation among different and separate organizational units, engaged in either exploration or exploitation (O'Reilly and Tushman, 1997, 2004; Christensen, 1998).

There are several studies that investigate successful organizational configurations for integrating these units, for example, cross-functional task forces and project teams (McDonough and Leifer, 1983; Nonaka, 1994). The focus in this paper is on bank branches, considered as organizational units, which—to face the contextual and external variables—need to pursue efficiency and flexibility. Thus, our conceptualization of ambidexterity, in the banking sector, is consistent with those in O'Reilly and Tushman (1997) and Christensen (1998) since we depict ambidextrous innovation in banks as the ability to manage both exploitative and exploratory branches.

#### *Sales, Operational and Governance Processes in Retail Banks*

The organization of a retail bank—that is, a bank oriented to small- and medium-sized clients—is usually structured as a worldwide headquarters, secondary centralized structures and several peripheral units or branches throughout a territory. The headquarters, usually established in a given region, defines strategies and products, and delivers administrative and back-office services, often through secondary distribution centers. The branches, although the last link in the chain, are fundamental in that approximately 80 per cent of the bank's employees work in the branches and are responsible for face-to-face, personal relationships with clients. In responding to clients' requests, they operationalize financial activities within the branch—taking personal responsibility if this is within their work remit—or requesting a secondary centralized structure for the necessary approval/support, where authorization is needed to end an operation. According to the structural strand of the ambidexterity literature (Gibson and Birkinshaw, 2004), some branches focus on customer satisfaction and flexibility, while others focus more on monitoring and continuously pursuing efficiency and procedural standardization; and this allows achieving high organizational performance (He and Wong, 2004; O'Reilly and Tushman, 2004). For instance, sales processes developed in branches need to be flexible, since it is important to be close to the client's needs. Sales processes aimed at selling products/services and managing customer relationships and advisory services (i.e. loans and funding, credit-card sales, financial planning) can involve rapid changes that require the reconfiguration of products and services. Operations processes, on the other hand, support efficiency and assessment activities, generally based on extensive use of information and communication technologies (ICT). Operational processes are aimed at providing assistance predominantly to clients requiring administrative services (i.e. tax filings/payment, credit transfers, new account facilities). Governance processes organize these two process categories: governance processes manage, organize and source structures and people based on a given process (i.e. branch governance, budgeting, human resources (HR) governance). Sales processes focus on client management and need to consider both short- and long-term perspectives, while operational processes support sales processes and are developed according to the sales strategy imposed by the bank headquarters (governance process).

#### *Three Reference Models in Branch*

Retail banks are successful in achieving ambidexterity in their branches (Jansen, 2005); however, the way that it is achieved is unclear. We argue that structural ambidexterity plays a role in designing exploitative and exploratory bank branches. The way these branches are

designed is tightly connected to the headquarters' governance policies that assign different degrees of control and formal vs. informal procedures to different branches. In turn, defining centralization and formalization is crucial: centralization is the extent to which power is distributed among social positions (Hage and Aiken, 1967). It lays in the delegation of decision-making authority in a firm and measures managers' commitment to decision-making (Aiken and Hage, 1968). Hage and Aiken (1967) acknowledge two constructs within centralization: (a) concentration of decisions with respect to dissemination of resources for policy formulation, which indicates the extent to which there is (or not) participation in the decision-making process; (b) concentration of decisions that focus on task performance, the indicator being the hierarchy of authority scale (Dewar and Dutton, 1986). Formalization is the degree to which rules, procedures, institutions and communications are formalized and codified—that is, activities are reduced to writing (Khandwalla, 1977). It measures the degree to which rules define roles, authority relations, communications, norms and sanctions, and procedures (Hall *et al.*, 1967).

We argue that, in retail banking, there are three main branch models. Model 1, which tends to be mostly exploitative—high centralization and formalization and policies associated with control and focus on process standardization and cost saving, which promote pursuit of efficiency; Model 2, which tends to be exploratory—low levels of centralization and formalization enable greater autonomy which, in turn, enables quick and “local” entrepreneurship and decision-making or flexibility. Model 3 incorporates characteristics of both models: it has a degree of autonomy in terms of decision-making; at the same time, it focuses on cost savings and rationalization of resources. Model 3 is centralized and formalized, but pursues elements of efficiency related to local initiatives. From the above we highlight that, although structural ambidexterity takes place in banks (i.e. some branches are exploitative while some others are exploratory), some branches are able to conciliate the efficiency vs. flexibility dilemma. Table 1 provides a synthesis of the relationship between the governance, sales and operations processes in exploitative, exploratory and ambidextrous branches.

**Table 1.** Reference models in branch

Process	Reference model		
	Model 1 (exploitation)	Model 2 (exploration)	Model 3 (ambidextrous)
Governance	Formalization; planning and frequent review meetings with branch directors; active role of HRM (centralized) in recruitment and training	Policies of incentives with controls over outputs; ICT used to control customer satisfaction	ICT used to control both short- and long-term branch performance
Sales	Specialization; focus on processes	Job enlargement and job enrichment with training in branch; focus on output	Field specialization for segments of clients; job rotation
Operations	Routines; exploitation of ICT to centralize tasks; BPM/continuous improvement	Experimentation of new channels for clients; ICT used for peripheral autonomy	Centralization of ICT; short-term MBO <sup>a</sup> managed by branch directors

<sup>a</sup> Management by Objectives.

*Model 1: exploitative activities*

*Governance processes.* The focus is on creating specific rules and procedures to be exploited in branches supported by ICT, frequent feedback and regular reporting. Reports of financial performance are required on a weekly basis and the main focus is on inputs rather than outputs. For instance, the headquarters HR department is responsible for allocating (and relocating) employees based on their specific and technical competencies. Training is developed and provided centrally.

*Sales processes.* The focus is on formalization of roles; the headquarters assigns specialists for segments of clients, to specific branches. Employees receive specialist training, and are relocated to those branches requiring their specific competences. Customer (and employee) segmentation in retail banks involves mass, affluent and small business clients, assigned according to their behavior patterns and their product/service preferences. The headquarters assigns portfolios to employees, which provides a way of controlling and monitoring their results.

*Operations processes.* The focus is on centralization and control; employees' tasks are supported by routines and headquarters use ICT to monitor them. ICT are used to achieve greater efficiency in all branch processes (front, middle, back office). Frequent assessment promotes continuous improvement and allows cost control.

*Model 2: exploratory activities*

*Governance processes.* The focus is on the development of policies that allow branches to work autonomously; ICT used to support cross-unit processes, that is, to accelerate flows of information from risk center (headquarters) to branch, and vice versa. MBO (Management by Objectives) is the technique commonly used to assess branch performance. Recruitment and training are developed in branch (locally) and the headquarters HR department provides guidelines, courses and training for branch managers.

*Sales processes.* The focus is on flexibility achievable by the branch owing to its greater autonomy. Employees are trained in the branches; the branch may assign them more than one portfolio identifying sales objectives. Competencies focus on products or services rather than a particular customer segment. There is substantial flexibility in the management of branch portfolios. This model requires more time devoted to competency development since employees require broader knowledge. Because employees are trained in branches, they become branch-dependent, which is a barrier to job rotation. Nevertheless, job rotation within branches is high.

*Operations processes.* The focus is on decentralization: information systems are generally standardized across branches through ERP (Enterprise Resource Planning) systems such as SAP (Systems, Applications, Products). However, customizations can be implemented to support local needs related for example to: (a) branch size, (b) types of customers, (c) types of financial service offerings. Operations are customized to branches, which increases costs

in terms of training new employees even if they are recruited from other branches of the same bank.

### *Model 3: ambidexterity*

*Governance processes.* The focus is on short-term objectives. However, branches have autonomy to decide about local strategies to achieve best performance. In other words, there is short-term control based on outputs. Centralized ICT systems support frequent review and assessment. HR processes involve both centralized (headquarters) and local (branch) policies. For instance, training is generally the responsibility of headquarters while recruitment is a branch activity.

*Sales processes.* The focus is on flexibility, but with short-term monitoring of financial performance. Sales processes can continue to be managed by the branch as long as they achieve short-term results targets. There is no formalization, and within-branch job rotation is frequent. Employees (trained within branches) achieve branch-specific competences and also general skills. Although this is a more expensive means of HR formation (i.e. training periods are longer), it enables greater flexibility in terms of job rotation across different branches.

*Operations processes.* Branches customize their local technology to suit the particular situations associated with their specific customer segments. Although operations may be designed by headquarters (i.e. to support standard processes), branches can customize parts of them to satisfy contingencies (i.e. market issues, a particular rural/urban branch location) in order to meet clients' needs. In sum, operations are centralized, but can be managed locally as required, in line with a client-centric view of commercial processes. The above leads us to argue that there are three base strategies in banks' branch management. Model 1 focuses on short-term results and control is on inputs (i.e. HR is centralized) and process (BPM). On the contrary, Model 2 focuses on long-term results and control is on outputs (i.e. the branch can hire employees and make ad hoc strategies). Model 3 is a "compromise": high centralization takes place (weekly assessment of performance), which leads to leverage of incremental innovation to pursue efficiency in the short term; however, local initiatives can take place, and this encourages exploratory innovation.

In the next section, we introduce fieldwork where we ground our framework and assess some results drawing from contextual variables.

### **Illustrative Fieldwork**

In 2004–2005, the authors of this paper were involved in a research study of a number of major Italian banks in collaboration with the Association of Italian Banks.<sup>1</sup> The findings of the research are included in a more comprehensive research report delivered to and approved

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<sup>1</sup>During this research the authors of this paper were supported by colleagues, PhD students and consultants belonging to a research center on Finance and Banking of an Italian University. However, at this stage we are not mentioning both people and structures involved in this project in order not to disclosure the identity of the authors.

by the Bank of Italy, which holds copies of the data collected and some preliminary comments. The research focused on innovation processes in retail banks and empirical evidence was collected at headquarters and branch levels.

### *Outlook of the Italian Banking Industry in the 2000s*

Since 2001, the financial services industry in Europe has undergone considerable consolidation (De Nicolò *et al.*, 2004; Berger and Udell, 2006; Figueira *et al.*, 2007), and particularly in Italy, where the number of independent banks reduced from 604 in 2001 to 495 in 2006 (– 18 per cent), while the number of banking groups increased from 76 to 87 (+ 14 per cent). This dynamic scenario represents the Italian banking industry's pursuit of efficiency and effectiveness. In respect of the former, Italian banks are conforming to the main European trends and a focus on the creation of banking conglomerates that distribute financial products and services. In Europe, for instance, Deutsche Bank, RBS-ABN Ambro, Unicredit Group, Barclays and BNP Paribas have made changes to their management processes and are concentrating on the de-bureaucratization of structures, as well as unit differentiation (Lawrence and Lorsch, 1967). Organizational structures have been subject to major changes to increase sales effectiveness through customization of products and services for diverse clients, centralized operations and greater exploitation of ICT (Srivastava *et al.*, 1999). At the same time, Italian banks are focusing on customer relationships and developing personalization strategies to segment the customer base and create product bundles suited to the needs of each segment/sales channel (Wind, 2001; Huang and Lin, 2005). In some cases, sales orientation has led banking groups to differentiate banks (belonging to the same group) to highlight specializations, for example, in customer clusters, financial instruments and ICT. To maintain client-oriented and efficiency strategies, banks have started to explore new ways of conducting their business, introducing areas of innovation in their services, practices and structures to offer the most complete array of services possible (Quinn *et al.*, 1996).

### *Data Collection and People Involved*

#### *Quantitative data collection*

We conducted the quantitative part of our data collection in early 2004 and we involved 73 Italian banks. The questionnaire was sent electronically using the ABI network and the percentage of valid responses was 37.6 per cent of the whole Italian retail banking system (in terms of total amount of branches). The composition of the sample is as follows: in terms of bank size, 19 banks are major, large and medium; 54 banks are small.<sup>2</sup> Fifty-eight banks belong to a banking group while 15 are independent banks. The questionnaire focused on three main themes: (1) system data: composition of bank's network (i.e. branches, financial institutions that give supporting services such as ICT, focus, strategy, specialization); (2) quantification of ongoing projects that involve major changes and improvement in structure,

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<sup>2</sup> The classification of banks into major, large, medium and small is from Annuario ABI (2005). The classification takes into consideration total annual assets.

policies, strategy and specification of the type of change (i.e. radical, incremental), decision-making processes and negotiation activities associated to such changes; (3) ICT and operation that currently support organizational processes in branch as well as in headquarters.

#### *Qualitative data collection*

In 2005, we conducted qualitative data collection with 16 banks that actively participated in the research project. Three international banks and seven ICT consultant companies contributed with interviews and participated in discussion groups. Interviews of 39 participants among the 16 banks were taped.

#### *People involved*

In terms of the quantitative data collection, we decided to address the survey to those people who could contribute to their bank's innovation processes. In turn, we identified general managers and VPs of key departments such as (1) HR, (2) ICT, (3) Marketing, (4) Organization and (5) Sales. We called this the "cross-functions survey". In contrast, only one questionnaire per bank was sent in order to collect (objective) bank's data (i.e. number of ongoing projects, number of people involved, length of each project and so on). The bank's information was collected from our bank contact (that we called the "reference contact"). In turn, the reference contact was in charge of collecting those numbers that were required by the questionnaire going through the bank's archive or asking competent people (i.e. financial data). More perceptual data was collected from a number of managers belonging to different departments. For instance, in some cases we needed to triangulate the data to clearly define a change as radical or incremental. The questionnaire with perceptual data provided also demographic information and organizational role and competences. While we did not include the demographic information in our analysis, the role and competences of the respondents were helpful to create data sub-sets. For instance, we had the possibility to group data by organizational function, by project and by seniority (i.e. senior project managers vs. junior resources). In terms of the qualitative data collection, we selected mainly senior project managers. The interview protocol was semi-structured. Since we conducted interviews one year after the survey (survey, 2004; interviews, 2005), on the one hand, general questions were helpful to comment on the quantitative analysis; on the other hand, more specific questions were addressed to shed light on how and why particular innovation strategies have been pursued. Discussion groups enabled themes to emerge as well as issues that the bank's managers faced in their everyday work.

The evidence presented in the next section draws on the data collected by the authors and highlights the applicability of our framework to the Italian banking industry. Moreover, a number of details were introduced and/or enriched by the researchers' perceptions developed during the fieldwork.

## **Discussion**

### *Potential Drivers of Ambidexterity*

The application of our reference framework to the investigation sheds light on some interesting themes related to ambidexterity. For instance, we relate empirical information

on exploratory, exploitative and ambidextrous branches to the geographical dispersion (Landier *et al.*, 2006) of branches and bank size. The concept of geographical dispersion is relative and depends on the boundaries of the study. Our research is undertaken on the national scale; in line with Landier *et al.* (2006), we do not define dispersion (and proximity) of branches using regional boundaries: in fact a branch “might be located close to state boundaries leading to an incorrect classification of proximity” (Landier *et al.*, 2006: 1127). On the contrary, we agree with Landier *et al.* that a more accurate measure of geographical dispersion can be associated with the “physical distance” (i.e. mileage).

Firstly, we find that the geographical dispersion of bank branches affects the extent to which banks differentiate their innovation strategy at the peripheral level. Analyzing the questionnaires, we find that some local banks have a specific client focus (e.g. mass market, affluent, small and medium firms) or have branches specialized in a particular client segment (see, i.e. Sherwood, 1995). Banks that cover a wide territory (many regions or the whole country) tend to have both specialized and non-specialized (in terms of client segment and business focus) branches. While banks with specialized branches prefer exploitative strategies, banks that manage both specialized and non-specialized branches are more likely to pursue: (a) exploitative strategies if their branches are focused on a particular client typology; and (b) exploratory strategies if their branches do not have a specific client focus. Thus, banks that operate across a large territory are more likely to be ambidextrous, that is, the variable “geographical dispersion” influences the extent to which banks need to differentiate exploratory and exploitative strategies at branch level. Namely, our empirical investigation (the 2004 cross-functions survey) suggests that high geographical dispersion leads to branch differentiation. The above are examples of structural ambidexterity where both organic and mechanic design are used (Tushman and O’Reilly, 1996; Benner and Tushman, 2003). Structural differences can help firms manage both exploitative and exploratory innovation within organizational boundaries (Gilbert, 2005).

Secondly, we find that the smaller the branch the more focused is its exploratory strategy (2004 cross-functions survey). This suggests some implications: that it is more difficult for small branches to achieve efficient economies of scale (EOS) and consequently small branches are more likely to aim at flexibility rather than greater efficiency; that small branches are more likely to suit clients that prefer direct and informal relationships with bank branch employees (e.g. in small towns). While small branches need to manage the requirement for flexibility through an exploratory strategy (Model 2), large branches are more able to choose between efficiency (Model 1) and flexibility (Model 2). However, we find that branch size does not affect the degree of ambidexterity of the bank since, as emerged from our quantitative investigation (questionnaire, theme 1), even small banks have small and large branches. In addition, although larger branches are more likely to operate in big cities while smaller branches are more likely in villages, branch size is not related specifically to bank size or to the extent to which a branch operates in a small rather than a larger urban district. In sum, while small branches are more likely to adopt an exploratory strategy in line with their small size and greater flexibility, large branches are able to be more focused (and specialized) or flexible: in turn, *bank size does not affect the degree of process ambidexterity*. Interestingly, from our fieldwork it emerged that Model 3 (ambidexterity) is pursued by major and large banks. This suggests that while branch size affects the extent to which it focuses on an exploitative or explorative strategy, banks with branches in different geographical areas are more likely to be ambidextrous because they need to satisfy

heterogeneous client needs based on the fact that their focus includes more than one client segment and that, since they operate in a broader (and heterogeneous) area, they are faced with different client needs within the same segments (mass market, affluent, SME). This second finding is a confirmatory example of the possibility to deal with efficiency and flexibility within the same organizational unit (Gibson and Birkinshaw, 2004).

Banks that operate in a vast area (e.g. countrywide) need to differentiate organizational units (branches) from an organizational design strand (i.e. Child, 1972); this suggests that Model 3 takes place. Following the literature and driven by our quantitative analysis we argue that geographical dispersion determines client heterogeneity. The fact that geographical dispersion affects ambidexterity reinforces our argument about the need for banks to differentiate when managing different client typologies. We understand that the literature on ambidextrous organizations does not refer to the relationship between management of client needs and ambidexterity. However, we can assume that better attention to client needs is related to the ability to be flexible. Thus, our findings show that some banks, in order to be competitive at branch level, need to differentiate their branches according to the context, in order to satisfy their clients. In sum, process ambidexterity in banking (in terms of the application of Models 1 and 2 in different branches) is achieved when a bank is spread across a sufficiently large area of the country (and different areas such as big cities and small villages) and is focusing on being competitive in different regions. However, large banks also make use of Model 3. Model 3 is more costly (HR management does not benefit from EOS for recruitment and sometimes for training) and risky (the internal job market is weak due to the high branch specificity of employees). Thus, reconfiguration of employees is difficult. One could think that the idiosyncratic flexibility of branches that pursue Model 3 leads to general rigidity of the bank. This is in part true, as some managers (from headquarters) told us during the interviews. However, the branches that pursue Model 3 are less in number, according to our interviews.

The above analysis discusses structural ambidexterity in branch and shows that it occurs both when Models 1 and 2 are used in different branches and when Model 3 is used in specific branches. While using Models 1 and 2 in different branches involves the application of ad hoc management for branches, Model 3 deserves further investigation.

#### *Contextual Factors Affecting Ambidexterity within the Same Organizational Unit (Model 3)*

From an organizational design perspective, service organizations face conflicting demands in the pursuit of efficiency vs. flexibility (Spreitzer *et al.*, 1999; Damanpour *et al.*, 2009). While banks acknowledge the importance to reduce costs, managers recognize that in order to retain clients and innovate in a radical way they need to achieve flexibility, using mechanisms that allow autonomy, often at the expense of control. Our fieldwork shows that configurations of branch strategies in terms of exploitative and exploratory innovation, underpin two different approaches to process management. Model 1 is more focused on centralization of activities, thus processes are managed in relation to efficiency. Rules and defined tasks apply to governance, sales and operational processes. Model 2 is focused more on decentralization of activities where rules are not formalized and there is more attention to flexibility and autonomy. In other words, we suggest that high centralization and formalization support exploitation while low centralization and formalization support exploration; and this is in line with the literature (see, i.e. Sheremata, 2000; Jansen, 2005).

Moreover, the managers we interviewed explained that it is often difficult at branch level to manage both efficiency and flexibility in processes. Namely, using Model 3 is more complicated than managing Models 1 and 2. Interestingly, although centralization and formalization predominate in most branches, those that implement Model 2 achieve flexibility not only because they are managed with different degrees of centralization and formalization, but also because branch directors' incentives are more oriented to results. Consequently, process variability (Frei and Harker, 1999; Frei *et al.*, 1999; Tsikriktsis and Heineke, 2004) is more likely to increase when senior (headquarters) management decides to impose Model 2 (exploration) on some branches. Process variability emerges because the process design is less rigorous in terms of defining the tasks and activities that are the parts of a process usually performed by organizational units or departments (Harrington *et al.*, 1997). Our fieldwork (in particular the discussion groups) shows that: (a) process variation in banks emerges because of client heterogeneity; and (b) banks try to control process variation; in line with Frei *et al.* (1999) a measure of process variation is required to determine the efficiency with which a set of outputs is produced from a set of inputs, for instance, when banks want to pursue efficiency at branch level, headquarters tries to control and monitor the activities of branch managers, for example, using Model 2 operational processes. When the bank's objective is more flexibility at branch level, they encourage process variation through informal (and cultural) control (Harris and Ogbonna, 2011) over activities rather than through the imposition of bureaucratic organizational mechanisms addressed at centralized control. Finally, assuming that large organizations, such as banks, need to exploit centralization and formalization to manage peripheral units (Tsouderos, 1955; Grusky, 1961; Blau and Schoenherr, 1971), we argue that in order to have both exploitative and exploratory branches, banks need to increase the cultural control in those branches where it is more strategic to be flexible—with respect to their geographical location and typology of clients. According with our discussion of Model 3, it involves short-term control; however, control is addressed to performance instead of inputs. Namely, MBO in branch is achieved with cultural drivers.

In sum, we found that participative management and a strong organizational culture (Ravasi and Schultz, 2006) are crucial to manage flexibility and promote exploratory innovation (Model 3). Our argument related to exploiting an organizational culture in order to achieve a degree of flexibility is consistent with parts of the literature. Durisin and Todorova (2003) argue that management leadership (acknowledged as an antecedent of ambidexterity, for instance, in Beckman, 2006; Lubatkin *et al.*, 2006) plays a crucial role in exploration activities where alignment between the organizational culture (of innovation) and the strategy (of ambidexterity) is fundamental. O'Reilly and Tushman (2007) suggest that culture and trust can sustain ambidexterity since the overlap between two such different processes of innovation is not sustainable without some organizational design guidelines. Again, following the theoretical claims in O'Reilly and Tushman (2007), we point to the importance of addressing culture and stimulating behaviors to build the capability to face radical and incremental innovation (Teece, 2006). Teece (2006) highlights in particular the importance of aligning business and governance to pursue “the continuous need to modify products offering, business models, enterprise boundaries, and organizational structures” (1339) and argues that “the enterprise will need sensing, seizing, and transformational/reconfiguring capabilities to be simultaneously developed and applied for it to build and maintain competitive advantage” (1341). Thus, ambidexterity in a branch seems

to be rooted in the cultural approach of managers and based on trust and decentralization in boundary activities, and builds on the ability to manage both long- and short-term innovation activities, viewed as complementary rather than conflicting.

As highlighted in Birkinshaw and Gibson (2004), structural ambidexterity resides “at the top of the organization” and “alignment-focused and adaptability-focused activities are done in separate units or teams” (50). On the contrary, contextual ambidexterity assumes that “individual employees divide their time between alignment-focused and adaptability”, and decisions are made “on the front-line, by salespeople, plant supervisors, office workers” (50). O’Reilly and Tushman point to the importance of leadership and management styles: charismatic leaders can drive a team, or task force to both exploit and explore novelties, even if the two innovation processes are antithetic. We believe that our research integrates those three perspectives highlighting: (1) the extent to which ambidexterity can be planned (top-down innovation strategy); and this is shown in our framework. (2) That, in order to have “micro-ambidexterity” (i.e. within the same organizational unit), employees need to have “more generalist” skills (Birkinshaw and Gibson, 2004: 50). (3) That managing employees with wide and general competencies requires leadership to address the unit’s effort to specific unit performance.

### **Conclusions and Implications**

This paper reviews parts of the literature on ambidexterity and concentrates on the banking industry to examine how ambidexterity emerges and is managed at the branch level from a structural perspective. We made use of three reference models, Mode1 1 (exploitative), Model 2 (exploratory) and Model 3 (ambidextrous), supported by an illustrative case study using quantitative and qualitative methods.

Our quantitative analysis provided a number of implications for banks: firstly, we showed that banks that cover a wider geographical area are more likely to have ambidextrous branches because the wider spread of their operations implies that they need to satisfy the different needs of different branch clients (providing low-cost as well as flexible services). Secondly, we found that while size affects the exploitative or exploratory nature of a branch, this does not affect the degree of ambidexterity of a bank because we did not find a correlation between branch size and bank size. That is, some small banks have (few) large branches. Thirdly, we found that geographical dispersion is associated with client heterogeneity and we drew the conclusion that the need for a bank to be ambidextrous can originate from the necessity to provide different services to a different typology of clients. For instance, some clients are interested in speed—which implies the need for higher efficiency and innovation addressed to improving processes and procedures; others prefer to develop relationships with employees, based on trust and informality, customized treatment and ad hoc services, which implies the need for flexibility and innovation addressed to new services supported by radical changes in organizational processes.

Our qualitative analysis unfolded some issues related to how exploitative, exploratory and ambidextrous branches are managed. While our “numbers” supported the finding that organizational mechanisms, such as centralization of decision-making and formalization, play a determining role in whether the focus is on exploitative or exploratory innovation, the interviews shed light on the difficulties for headquarters to manage different branches in different ways—for example, using ad hoc organizational mechanisms depending on

whether the goal is efficiency or flexibility. This suggests that a contextual perspective of ambidexterity should be taken; for instance, we found that managing branches through control based on cultural and informal means is the solution adopted when there is a need to moderate branch rigidity, to enable the delivery of specific services to specific clients in specific geographical districts (Model 3). Our results are in line with the literature on ambidexterity highlighting that management style and culture are determinants of ambidextrous activity and its management. Moreover, one important implication of our study lays in the integration of our structural lens with some contextual insights.

In terms of avenues for further research, in our view the present study represents a starting point for a broader analysis of other service organizations. Moreover, we acknowledge that our model represents ambidexterity in a very static way. Although we incorporate insights from our fieldwork that show the dynamic nature of ambidexterity, we argue that a more complex model that takes into account the three main strands of the construct and capture the idiosyncratic evolutionary characteristics of ambidextrous organizations might be developed. It would be interesting to study what (if any) differences in process innovation occur in the boundary organizational units of other types of organizations. It would also be interesting to make comparisons based on similar studies in different countries. Since culture and management styles are identified as potential ways to manage ambidexterity we would argue that it would be useful to conduct a cross-country analysis, which might yield different results in terms of the cultural approach to ambidextrous innovation. Finally, we argue that the results of studying ambidexterity from a multilevel perspective should be useful to both academics and practitioners—especially at senior management level.

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