

Balancing exploration and exploitation in public management: Proposal for an organizational model

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Over the last 30 years, a wave of reforms has reshaped the panorama of public administrations around the world, which have also stimulated debates on the subject reform in public sector relations. Much research has focused on discussing the validity of New Public Management (NPM) as a paradigm, including the recognition of regional versions of a number of universal problems in the Public Governance, NPM, and Public Value areas. This debate is focused on the need to give concrete answers to the new management needs of policy makers and to the growing demands of citizens. Increasingly public administration is based on meeting two needs: society requires creative, flexible, and innovation-oriented approaches, whilst economic pressures and budget cuts are forcing uses and models oriented toward efficiency, competitiveness, and cost savings. As regard the changing requirements of the public government, the new organizational system needs to incorporate the creativity, innovation capacity, and flexibility necessary to achieve sustainability and public value. The purpose of this research is to offer an organizational model, which balances exploration activities with those of exploitation, thus being able to meet the changing needs within the Administration, and the actions envisaged for its operations. This article also introduces the requirements for a decision support system to measure regional performance and service quality. It is hoped that we add to our knowledge and understanding of coordinated public policy and good governance that is effective even in these radically demanding Covid-19 times.

1 | INTRODUCTION

Governments are currently under pressure because of the urgent need to innovate (Osborne & Brown, 2011) which arises from grand challenges (Ferraro, Etzion, & Gehman, 2015). In these times, the dramatic challenges of the Covid-19 health emergency represents a further problem to be solved in the economic, social, and environmental fields to achieve the objectives of the 2030 Agenda for Sustainable Development, that is, an action program for people, the planet and prosperity signed in September 2015 by the governments of the 193 UN member countries. It incorporates 17 Sustainable Development Goals into a major action program for a total of 169 targets. The official launch of the Sustainable Development Goals was in 2016 and will continue for the next 15 years: in fact,

the countries have committed themselves to achieving them by 2030. The Goals for Development follow the results of the Millennium Development Goals that preceded them, and represent common goals on a set of issues important for development: the fight against poverty, the fight against climate change, the health and wellbeing, quality education, fair and responsible new infrastructure for businesses, to name just a few. "Common goals" means that they concern all countries and all individuals: nobody is excluded, nor should he be left behind on the path necessary to bring the world on the path of sustainability. But how can the Public Sector respond to this pressing need to innovate?

Traditionally, public administrations are mostly directed to organize and provide standardized services and not to promote radical innovation (Lodge & Wegrich, 2014). Specialized agencies (such as

those focused on health, education, culture, or the environment) adhere to New Public Management (NPM) values (Bryson, Crosby, & Bloomberg, 2014; Christensen & Lægreid, 1999; Gruening, 2001) of efficiency and efficacy but, in the recent years, are also strategically involved to develop innovation thorough improved plans and policies (Boukamel & Emery, 2017). The launch of autonomous units aimed to promote innovation has been significantly investigated in the private sector (O'Reilly & Tushman, 2013), where organizational ambidexterity has been at the center of the academic debate for the past 30 years.

Many scholars of organizational theory have focused on this topic, which concerns an organization's ability to explore and exploit at the same time: on the one side, competing in technologies and mature markets where efficiency, control, and incremental improvement are appreciated; on the other side, being able to also compete in new technologies and markets where flexibility, autonomy, and experimentation are needed (Aagaard, 2011; Benner & Tushman, 2003; Duncan, 1976; Lubatkin, Simsek, Yan, & Veiga, 2006; March, 1991; O'Reilly & Tushman, 2013; Tushman & O'Reilly, 1996). The concept of ambidexterity comes from the idea that to some degree an organization's task environment is always in a situation of conflict between exploration and exploitation, so there are always trade-offs to be made (Carmeli & Halevi, 2009). Although these trade-offs can never be eliminated, most successful organizations are able to reconcile them and, in doing so, can prosper on a long-term perspective (Gibson & Birkinshaw, 2004).

Many studies have highlighted the validity of finding a balance between exploration and exploitation to obtain a stable and lasting competitive advantage (Gilsing & Nootebbom, 2006; McNamara & Baden-Fuller, 1999; Rothaermel & Deeds, 2004; Soosay & Hyland, 2008). Nevertheless, their coexistence at the organizational level is notably difficult since their interplay occurs in the form of a zero-sum game. In fact, using March's (1991) arguments, exploration and exploitation compete for scarce organizational resources and, thus, more resources are devoted to exploration can imply fewer resources left for exploitation, and vice versa. In addition, both types of activities are self-reinforcing, because exploration leads to more exploration, and exploitation to more exploitation. Finally, routines and processes needed for exploration are fundamentally different from those needed for exploitation, making their concurrent adoption a difficult task (Gupta, Smith, & Shalley, 2006).

However, while organizational ambidexterity has been extensively studied in the private sector, with many research studies on most aspects (e.g., Cao, Gedajlovic, & Zhang, 2009; Lubatkin et al., 2006), few and only recently studies have investigated the public administration and public companies in an adequate and thorough way (Boukamel & Emery, 2017; Cannaerts, Segers, & Henderickx, 2016; Nowacki & Monk, 2020; Palm & Lilja, 2017; Palmi, Corallo, Caforio, & Scialpi, 2019; Umans & Smith, 2013; Smith & Umans 2015). In particular, the case studies that arise from concrete experiences in the public sector are still very marginal, and no experimental organizational models have been proposed to be tested by policy makers in public bodies.

This article refers to organizational ambidexterity in the public sector and, by doing so, aims to help bridge and fill the gap in the public sector, through the proposal of an ambidextrous organizational model, designed to be implemented in an Italian public body, at the regional level. In particular, this research investigates if and how, in the age of post-bureaucracy, the choice of the ambidextrous structure could help public bodies to be efficient and to innovate at the same time, proposing a concrete new organizational model especially in the public sector. Furthermore, innovation has been argued to be one of the core outcomes of ambidexterity in organizations (March, 1991).

With the introduction of a post-bureaucratic culture, public governance has undergone a paradigm change that is flat, connected, and flexible, where individual autonomy is key to addressing environmental complexity (Palmi et al., 2019). This new system should balance the trade-off between creativity, innovation, and flexibility needed to solve emerging social challenges, and efficiency as a basis for sustainable competitiveness (Nowacki & Monk, 2020). This article presents an ambidextrous organizational model that could be adopted by public administrations at the regional level. The model is designed to optimize four interconnected dimensions: *organizational*; *individual*; *inter-organizational*; and *decisional*; it has been designed for a public body, namely the administration of a Southern Italian region.

A double perspective is deployed: on a theoretical level, expanding the international discussion on the implementation and integration of organic and mechanistic models as privileged organizational archetypes in dynamic and collaborative scenarios; at the level of professionals, through the preliminary adoption of a complete technology system for public organizations. The innovative capacity of public organizations has become one of the most important outcomes in this sector (Hartley, 2005): by studying ambidexterity as an organizational outcome, we take a step toward understanding the antecedents of innovation.

2 | THEORETICAL BACKGROUND

2.1 | The evolution of bureaucracy in Western democracies

The public sector governance, starting from the birth of centralized States, has undergone a number of rather significant paradigm changes. While during the 18th century, liberal values were essential, in the 19th and 20th centuries, western democracies evolved through the concept of the welfare state, mainly adopting the *bureaucracy model* proposed by Weber (1978), in which the predominant concepts are the division of functions, the centrality of decision-making power and the hierarchical structure. Bureaucracy was subject to scrupulous criticism, highlighting a structure that is far from the powerful, diligent, discreet, efficient, and rational apparatus oriented to the purpose described by Weber (Adler, 2012).

Merton (1949) first identified the main unexpected consequences of the Weberian bureaucracy, essentially found in the inability to adapt to the new, as well as in the bureaucratic ritualism and the so

called *esprit de corps*. According to Gouldner (1955), bureaucracy is never a *super partes* tool at the behest of an impersonal authority, apt to guaranteeing the best possible operation of a structure. This concept was reiterated by Selznick (1949), who states that bureaucracy is not a neutral, valid, and all-purpose tool, but it is rather the final product of human action characterized by hardness, tackiness, and internal resistance.

Since its beginnings, bureaucracy is considered a rigid organism Crozier (1963): inefficient, fastidious, and devoid of charm, however, granting unsuspected niches of private independence. However, even for bureaucracy there comes the time to change, and since it does not allow for a continuous and physiological change, it changes in a sudden and dramatic fashion. According to Crozier (1963), crises occur as a traumatic change that generates emotional participation, releasing innovative forces from within the bureaucratic apparatus.

At this point, political power takes hold of the situation and imposes from above a reform capable of alleviating the causes of hardship, providing more efficient services. At the end of this stormy phase of change, the events are part of the norm and the reformed bureaucracy starts performing again. This phenomenon of radical change can be transformed into an incremental innovation process, thanks to:

1. *cultural growth* and increasing *intellectual sophistication* of subjects in charge of entrusting workers with more complex and demanding tasks, transferring greater margins of freedom and creativity;
2. the growing availability of *information and communication technologies*, apt to speed up change and make public processes efficient and transparent throughout the administration.

The 21st century, with the definitive crisis of the Weberian bureaucracy, has experienced novel needs connected with *participation*, *transparency*, and *collaboration*, through the dissemination of information and communication technologies, and the rise of *empowerment*. Many contemporary works suggest the shift, through a transitory phase of reforms, from the Weberian model of bureaucracy to a more current concept of post-bureaucracy. Grey and Garsten (2001) connect this concept with the reduction of formal levels of hierarchy, emphasizing flexibility, thus creating a more permeable border between the inside and the outside facets of organizations. Comparably, Johnson, Wood, Brewster, and Brookes (2009) refers to post-bureaucracy as one flat organization, less hierarchical, more connected, and flexible. Under this perspective, technology allows to support managers and *decision-makers*, offering them advanced management or support tools, addressing the different variables that characterize the uncertain and turbulent socio-economic contemporary context.

2.2 | Designing ambidextrous models

The range of public governance action is currently squeezed between organizationally opposed needs, as the evolution of

society demands public administrations to face the emerging challenges of society. Recent technological innovations, such as the availability of open data, the dissemination of social media, as well as the availability of low cost connectivity, have brought widespread openness and transparency. All of the above require a creative, flexible, and constantly innovative administrative machine. On the other side, economic pressures and budget cuts force governments to adopt structured models oriented toward efficiency, able to guarantee greater competitiveness, and significant cost reductions (Boukamel & Emery, 2017; Palmi et al., 2019; Sorensen & Torfing, 2014).

All these requirements become compulsory at the time of the Covid-19 health emergency. Indeed, the pandemic crisis also has a serious economic impact, the most shocking catastrophe after the Second World War, certainly more serious than the crisis of 2008. In all countries, the GDP is in sharp decline, the turnover in almost all economic activities and sectors has fallen by about 30% in 2 months and governments must guarantee economic support measures to entrepreneurs and citizens, trying to stem economic and social collapse. At the time of Covid-19, therefore, two things are happening in the public sector: on the one hand, technology is used extensively, with remote work or intelligent work to ensure social distancing between employees; and on the other, Governments are putting in place many financial measures to support businesses and families. Therefore, the public sector pursues the objective of reducing costs by maximizing utility, rethinking, and redesigning work structures and processes, and pursuing, even more than before, the balance between exploration and exploitation activities.

However, how can public administrations be efficient and innovative at the same time? In order to address the needs for change in an operational manner, the first instance is intended to introduce, as an instrument of reading the context, a contingent-oriented perspective, identifying organizational choices as a natural response to the environment's complexity and variability.

It is now necessary to introduce, across the broad spectrum of possible organizational strategies, the concepts of exploration and exploitation. We shall here refer to the term *exploration* as including all possible strategies that aim at generating sustainable competitive advantage based on the acquisition of new organizational knowledge, through the experimentation and the constant search for possible curves of innovation. According to March (1991), we will then refer to the concept of *exploitation* meaning all strategies that aim at efficiently exploiting the knowledge existing within the organization. A mechanical structure is characterized by the combination of formalization and standardization. It guarantees maximum efficiency in exploiting the accrued competitive advantage in the organizational knowledge base (*exploitation*), but needs to curtail the variety of behaviors. Unlike mechanical structures, the organic structure (Levinthal & March, 1993) is characterized by low levels of formalization and standardization, as it grants greater freedom of decision, and it encourages creativity enriching the organizational knowledge base and favoring the development of a new competitive advantage (*exploration*) (Table 1).

TABLE 1 Comparison between mechanical and organic systems

Variables	Mechanical system	Organic system
Work environment	Stable	Unstable market and/or technology
Business goal	Efficiency Standard product	Innovation Response to the market
Work organization	Well-defined tasks Specialization Standardization of processes and outputs Direct supervision	Poor formalization Teamwork Multi-purpose versatility Emphasis on skills Mutual adaptation
Type of authority	Formally defined hierarchy Importance of seniority	Authoritativeness Importance of skills and competences
Communications	According to the hierarchical ways	Horizontal, free, and informal relationships
Employee commitment	Responsibility for their duties Loyalty and compliance	Commitment to achieve the goal Ability to manage uncertainty

Source: Own elaboration.

In this perspective, the Weberian bureaucracy is a mainly mechanical type of structure, and as such is concentrated on efficiency, rationality, and stability of own organizational processes. The hypothesis behind this article is that being ambidextrous represents a potential innovation tool for the public administration, bearing three closely interrelated dimensions:

Organizational Dimension—relating to the separation between structures *exploration* and *exploitation*;

Individual Dimension—relating to *empowerment* as a tool for personal, and therefore organizational growth;

Inter-organizational Dimension—relating to the implementation of network models as a tool to acquire new knowledge.

According to the Organizational Dimension (D1), the differentiation or integration of structures dedicated to exploit existing knowledge is central, rather than structures designed to create new knowledge. Almost all researchers favor organizational differentiation, since *exploration* units are typically smaller, more decentralized and more flexible than corresponding units dedicated to *exploitation*. On the other hand, the two processes require a strong integration, since from an external perspective *exploration* and *exploitation* represent a *continuum* of complementary activities.

According to the Individual Dimension (D2), especially in management, it is necessary to develop ambidextrous skills, namely the ability of each organization's member to make choices between *exploration* and *exploitation* activities, or to identify organizational conditions that autonomously integrate, differentiate, or mix the two perspectives,

setting goals and taking decisions. Public employees, having greater decision-making autonomy, would increase their individual learning opportunities and, consequently, would positively reinforce an ambidextrous organization logic (an individual with more autonomy would be more receptive in implementing innovations in the *exploitation* structure as developed in the *exploration* structure). In addition, it is necessary for the management to connect with structures other than its own, participating in cross-functional decisions, influencing the internal environment, and building organizational culture.

The Inter-Organizational Dimension (D3) emphasizes the ability to integrate internal knowledge with external knowledge (Cohen & Levinthal, 1990). The new knowledge needed to build a sustainable competitive advantage can be acquired by exploiting partnerships and strategic alliances with other organizations. This ability depends in part on the managerial attitude to build networks of relationships with organizations capable of generating value, and in part from the capacity to recognize, assimilate, and apply new knowledge, on the basis of already acquired one (Hargadon & Fanelli, 2002).

2.3 | Decision theory in the organizational context

Organizations grow, develop, thrive, or die as a function of complex chains of decisions, taken in contexts of rapid change, starting from incomplete information and often contradictory judgments. This makes the Decision Dimension (D4) an extremely relevant and debated element in the context of organizational literature. From the organizational literature standpoint, a decision is formally defined as the identification and solution of problems. According to the logic of a planned decision, it is not necessary to make new decisions for every single performed act, but it is possible to deploy a well-defined procedure for the solution of the problem, resorting to pre-established, repetitive decisions based on experience.

However, when facing completely unknown issues, the need to make unscheduled decisions generates novel and poorly defined resolutions, with large margins of uncertainty. At the individual level, the rational model is defined through a series of steps ranging from environmental monitoring to the definition of possible solutions, their selection and implementation, including the best known model. When decisions are less defined and superimposed on each other, a manager should still try to use a rational approach. Deviations from the rational approach are explained from the perspective of limited rationality, where experience and judgment are used to take decisions, rather than sequential logic or explicit reasoning. In situations of great complexity or ambiguity, the experience and judgment gained in the past must incorporate intangible elements, both in the identification phase of the problem, in the solution phase.

The relationship between an organization and its decisions is not a functional link but, if we consider the limits of human rationality—understood as the objective limits of knowledge—it is the inability to consider too many variables, and given the uncertainty within each hierarchy of preferences and mental dispositions, of cultural and social convictions, it becomes an ontological link. As a matter of fact, human

rationality is limited and this constitutes the premise to explain why organizations are established and why, according to Simon (1955), they represent behavioral models, essential for achieving rationality in the broader sense. In other words, according to Simon's perspective (Simon, 1991), the organization is a correctional tool of the cognitive and therefore decisional limits of the human being. A decision at the organizational level, therefore, is not the hypothetical maximization of the absolute value according to a logic of perfect rationality, but is rather an often conflictual process between actors who converge on the alternative deemed as most acceptable. Therefore, an organizational decision is made according to concrete criteria of sufficient and minimal satisfaction, and not according to a more rational logic of maximizing efficiency and optimizing results. The organizational decision can be alternatively modulated as a programmed resolution based on established rules and routines, or be configured as an unscheduled decision, taken by a group of managers in the shape of a convergent discussion toward a solution deemed acceptable. In the latter case, the reduction of uncertainty takes a strategic role, which can be implemented through the application of tools and models capable of extracting data both from within the organization and from the external environment, so as to offer a concrete decision support. Courtney (2001) was one of the first to state that *Decision Support Systems* (DSS) are among the most effective management tools of unstructured or semi-structured decision-making processes. The implementation of DSS solutions also allows for the reduction of information latency, meaning the time that intervenes between the reception of useful information for taking a decision and the decision itself.

3 | PURPOSE OF THIS RESEARCH

In the past 30 years, a wave of reforms has reshaped the landscape of public administrations around the world (Palmi et al., 2019; Pollitt & Bouckaert, 2011; Vigoda-Gadot and Meiri, 2008), sparking debate on the subject of reforms in public sector relations. Some studies are focused on discussing the validity of NPM as a paradigm (Barzelay, 2001; Bryson et al., 2014; Christensen & Lægred, 1999; Gruening, 2001), including the support of new paradigms or the recognition of regional aspects of universal problems of Public Governance, New Public Governance, Public Value, and the New Weberian State (Van Wart, 2014). Nowadays, Public governance is increasingly challenged by two opposing needs: the evolution of society requires creative, flexible, and innovation-oriented approaches, but the economic pressures and budget cuts are forcing governments to adopt models oriented to efficiency, competitiveness, and cost savings (Pollitt & Bouckaert, 2011). Therefore, in order to address the public governance needs, increase citizen participation, and adopt transparent procedures (Vigoda, 2002), a new organizational system should incorporate creativity, the capacity for innovation, and the flexibility needed by social challenges, as well as the efficiency and effectiveness to achieve sustainability and public value (O'Flynn, 2007). All these requirements are more and more relevant at the Covid-19 times.

In this context, the purpose of this research is to propose an organizational model that appropriately balances *exploration* activities with those of *exploitation*, thus meeting these changing needs within the Administration.

The Ambidextrous Organizational Model (AOM) is designed to optimize four interconnected dimensions: (a) *Organizational*, related to the balance between *exploration* and *exploitation* activities; (b) *Individual*, related to *empowerment* as a reason for people's growth and organizational development; (c) *Inter-organizational*, connected to networks as a means of acquiring new knowledge; and (d) *Decision-making*, linked to the complex decision-making process that requires analytical tools. The model is based on a matrix structure that integrates the skills related to project management systems, business process management systems, the creation of dynamic policies, and research and innovation networks. The model was designed to innovate the administrative machine of an Italian region.

This article also introduces the functional requirements for a decision support system able to measure regional performance and service quality.

4 | RESEARCH METHODS

The need to fill the literature gap with a proposal for new organizational models in the public sector at regional level led us to conduct an inductive study (Easton, 1995; Eisenhardt, 1989; Roethlisberger, 1977). The case study was considered a well-suited research strategy to achieve the research purpose. As a matter of fact, the single case study offers "depth and comprehensiveness" (Easton, 1995, p. 475) apt to understand the topic's organizational complexity. In order to address our research questions, we have conducted an analysis (Yin, 2009) adopting a qualitative approach of investigation. We proposed an ambidextrous organizational model because "grand challenges require novel ideas and unconventional approaches to tackle their complex and evolving mix of technical and social elements" (Eisenhardt, Graebner, & Sonenshein, 2016, p. 1113). Through an exploratory analysis of the Hierarchical Organizational Model (HOM) case in a Southern Italian region, we investigated the former organizational model, by identifying its weaknesses and limitations; subsequently, we further studied the new Ambidextrous Organizational Model (AOM) proposed for this region. The analyzed region has a surface of 19,345 km² (7,469 sq. mi), and about four million inhabitants. Its economy is mainly based on agriculture and tourism, experiencing a growing GDP in innovative industrial sectors such as Aerospace and ICT. The number of employees of the Regional Administration includes about 150 managers and 2,900 specialists with an average age of about 52. Following Yin (2009), we conducted a number of semi-structured interviews with concerned policy makers and public managers, in charge of various sectors and services, mapping the entire organizational structure. We have also used numerous documentary sources, as is the case of official documents from the Region's records, carefully reading and selecting over 700 pages of relevant reports, thoroughly examining organization charts and job descriptions.

5 | ANALYSIS AND RESULTS

5.1 | Former organizational model

The Region's former organizational model (Hierarchical Organizational Model [HOM]) was strictly bureaucratic and characterized by a subdivision of responsibilities and decisions across different levels, with an orientation toward the functional specialization of skills, deployed through eight high-level complex units, called coordination areas, with six coordination areas in charge of: rural development; mobility and urban quality; economic development, employment, and innovation; promotion of local resources, know-how and talents; promotion of health, people, and equal opportunities; retraining, environmental protection, and safety and implementation of the main public infrastructures. Two staff areas were in charge of organization and administration reform; finance and control.

The Coordination Areas were organized in "Services," the management units were responsible for operational planning, implementation, and control, further divided into "Offices," with the functional units at the base of the regional management system. The services were supported by the personnel and project units of their area, which respectively aim at ensuring uniformity, consistency, and efficiency in the planning operations, management, and development of technical, financial, and human resources, and in the implementation of specific time-related and inter-functional objectives. Furthermore, integrating structures ensured coordination between the areas of administrative activity and regional operational programs.

In a subordinate position, eight regional agencies and three subsidiary companies operated to support the bureaucratic machine's activities in various sectors, rarely carrying out exploratory activities.

The limitations of the examined "HOM" can be discussed alongside four dimensions:

D1. *Organizational Dimension*: major organizational limitations lied in the rigidity caused by the high number of Services and Offices forming a highly vertical and centralized organization, and by the Agencies' inability to innovate, despite their entrustment with strategic activities. *Exploitation* was hindered by both a proliferation of units and a limited horizontal coordination. *Exploration* was carried on between internal and external structures, respectively, the Coordinating Areas and the Regional Agencies, the latter having the same degree of bureaucracy and therefore being inherently inadequate to develop processes geared toward change, despite a significant allocation of resources and a well-recognized role.

D2. *Individual Dimension*: there were no actions in place to support personal growth and empowerment. Only the job rotation of managers within the Coordinating Areas was adopted as a measure to comply with the anti-corruption national law. Organizational development, innovation and change require connectivity, creativity and self-organization, and the rise of new organizational and professional visions that already appeared in communities and professional networks.

D3. *Inter-organizational Dimension*: inter-organizational limitations were caused by the lack of a clear strategy in the definition and management of relations with other organizations, and third parties able

to bring about new organizational, technical, and scientific knowledge. The strategy pursued by the regional administration to interact with research centers and universities was only partially effective, because of the critical mass of skills within this network, and their management's rigidly bureaucratic procedures.

D4. *Decisional Dimension*: the process of gathering the information required to support decisions concerning the implementation of new policies—and the evaluation of already implemented ones—was fragmented (spread across Offices, Services, other Structures, and the Regional Agencies), and not coordinated. The decision-making process within the organization should shift to a managerial model, where coordination is performed by managers at the top level of the organization. Furthermore, in order to enable a structured decision-making process, it is necessary to standardize organization, methods, and formats across the information gathering process.

5.2 | Plan toward the new model

The new organizational model will be implemented through a set of actions aimed at overcoming the limitations described above, which will result in an ambidextrous organization.

Referring to dimension D1, three actions have been planned to overcome organizational limits:

1. Creating, by replacing the coordination areas, a small number of departments reflecting the strategic objectives, thus conferring power to the regional presidency through a departmental support unit called the General Secretariat of the Presidency. The skills necessary to optimize the administrative activity and maximize the effectiveness of the action will be concentrated on the departments (with a lower number of Services), called Sections in the AOM, thus creating a horizontal organizational model based on the affinity and interdependence of the operational fields;
2. Strengthening the exploration capacity by establishing strategic regional agencies that work closely with each department. These dynamic organisms, constructed as matrix-based organizations, will enable us to achieve efficacy and efficiency objectives by guaranteeing high quality standards in the development of distinctive skills, at the same time respecting the constraints imposed by the central government's stability law. Staff units operating in departments will be gradually transferred to the corresponding strategic agencies;
3. Integrating, coordinating and balancing the action of six new departments and agencies through an organizational entity called the Coordination Commission of the departments. A new organizational entity called the Management Board, which will become part of the Directors of the Agencies and Departments, will be responsible for supporting the President in the strategic choices that promote innovation, change, and competitiveness.

Referring to dimension D2, three actions have been planned to support organizational progression through employees' individual growth:

1. Promoting empowerment by ensuring opportunities of professional growth to those willing to undertake improvement and innovation. Administration officials will be solicited to propose administrative and technical innovation projects, as well as scientific research projects, with a direct and indirect impact on its organizational unit. These projects will be carried on with the support of a service for Project Management (*Project Management Office*) in the context of explorative activities performed by the corresponding Strategic Agency;
2. Increasing job rotation practices in order to foster an organizational permeability between Departments and Agencies, allowing individuals to both increase their sense of belonging and understand the needs of different organizational areas;
3. Endorsing advanced training of personnel as a means for cultural change in the logic of continuous improvement, so as to help asserting organizational principles of effectiveness, efficiency, and sustainability.

Referring to dimension D3, two actions have been planned to enhance inter-organizational relationships:

1. Strengthening the capabilities of developing international relationships by instituting, within every Strategic Agency, a *Research and Innovation* unit responsible for creating, according to typical patterns of *network organizations*, a hub to develop and support networks of relationships on a global scale, with a large number of nodes, setting up network operations and scaling up solutions;
2. Identifying actions and tools for the *Research and Innovation* services to be able to establish relationships with different engagement levels, enabling network models designed to support researchers' exchange at a regional, national, and international level, and to create permanent *listening points* connected with global research networks.

Finally, three actions have been planned to develop monitoring and analysis tools (referred to in D4):

1. Defining a model supporting structured decision-making by establishing, within every Strategic Agency, a *Process Management and KPI* service in charge of developing methods and tools for measuring and monitoring effectiveness and efficiency of the corresponding Department processes.
2. Developing methods for assessing impact of policies adopted by the regional government. To this purpose, within every Strategic Agency, a *Policy Making* service responsible for identifying and collecting context data relevant to the evaluation of the regional system health status will be established, issuing an implementation status and the results of policies adopted by the corresponding Department.
3. Developing a decision support tool to access data (in open format) coming from all information sources collected and normalized by the Agencies' *Process Management and KPI*, and *Policy Making* services.

The "AOM" structure is based on ambidextrous organizations (the Department and the Regional Strategic Agency), including five high-level units, responsible for the implementation of regional policies and governance, and a staff unit dedicated to the financial sector, asset management, and organizational innovation.

A fundamental step toward the construction of this model consisted in circling the action of each ambidextrous organization. After careful evaluation, activities have been concentrated on the ambidextrous structures on the following topics: (a) Promotion of health, wellbeing, and sport; (b) Economic development, innovation, education, training, and labor; (c) Agriculture, development of the environment; (d) Tourism, cultural economy, and enhancement of the territory; (e) Mobility, urban quality, and public infrastructure; (f) Financial and asset management, personnel and organization (Figure 1).

The main units (supporting the President's Regional Committee) to govern the entire ambidextrous organizational system of "AOM" are: the Presidency General Secretariat, the Departments Coordination Council, and the Management Board. The Secretariat is in charge of coordinating strategically relevant sections, whose action is directly linked to the prerogatives of the Cabinet and the President of the Region (Figure 2).

The reorganization criteria also respond to the need for greater effectiveness and efficiency, transparency and traceability of processes, and functional consistency. Departments are responsible for exploitation activities, committed to solving relevant issues that refer to specific territorial growth and development objectives. Within the departments, each facet will be dealt with by a specific section and its subordinate services.

The search for greater effectiveness and efficiency in administrative action is pursued by decreasing the number of line units in the various levels and maintaining the Integration Structures, which ensure coordination and unity of processes, Staff Structures, for the unification of similar skills and the efficient use of resources.

The reduction in the number of organizational units, together with the expansion of their functions and dedicated staff, allows for cost savings and better coordination. It also allows each business unit for greater autonomy and staff empowerment to carry out tasks. This is widely confirmed in literature (Bartlett & Ghoshal, 1997) where it is stated that every organization influenced by change must focus on the individual dimension by favoring recognition.

As explained above, regional strategic agencies will be established to complete the ambidextrous model. Their role is extremely important, as they are tasked with identifying, planning, and promoting their sectors' development. To this end, the agencies carry out exploratory activities aimed at analyzing existing best practices (Jansen, Tempelaar, van den Bosch, & Volberda, 2009), undertaking improvement initiatives and involving all types of stakeholders in order to meet specific needs, gaining attractiveness and competitiveness with respect to the national and international context.

The agencies will have a structure based on a matrix in which the vertical lines represent the operational issues addressed by the executive areas. These areas are at the center of exploration activities, as

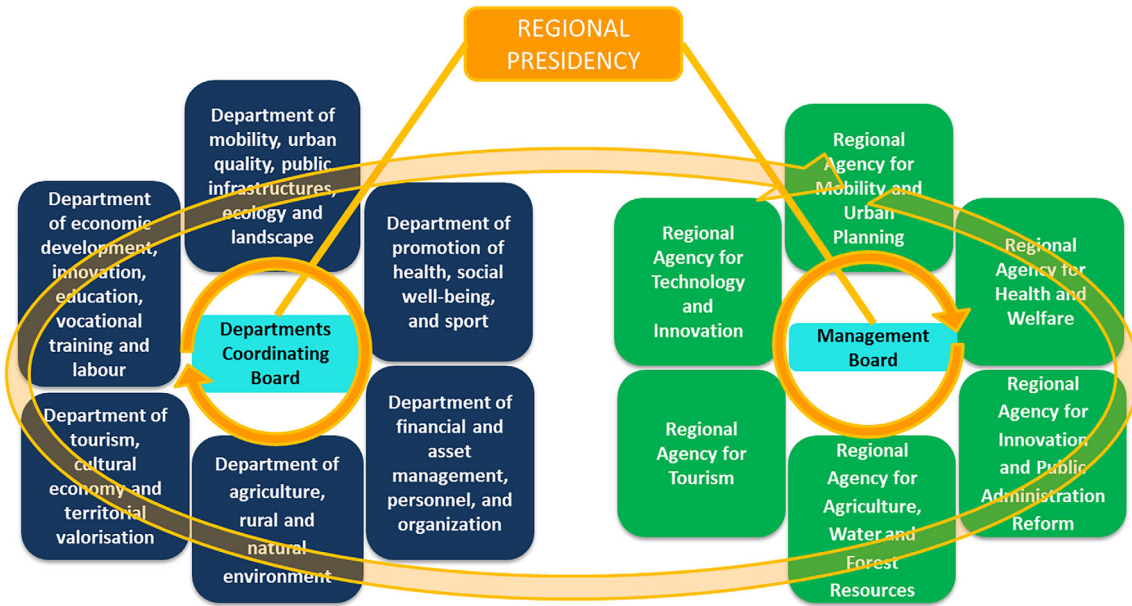


FIGURE 1 The ambidextrous organizational model. Source: Adapted from Palmi et al., 2019

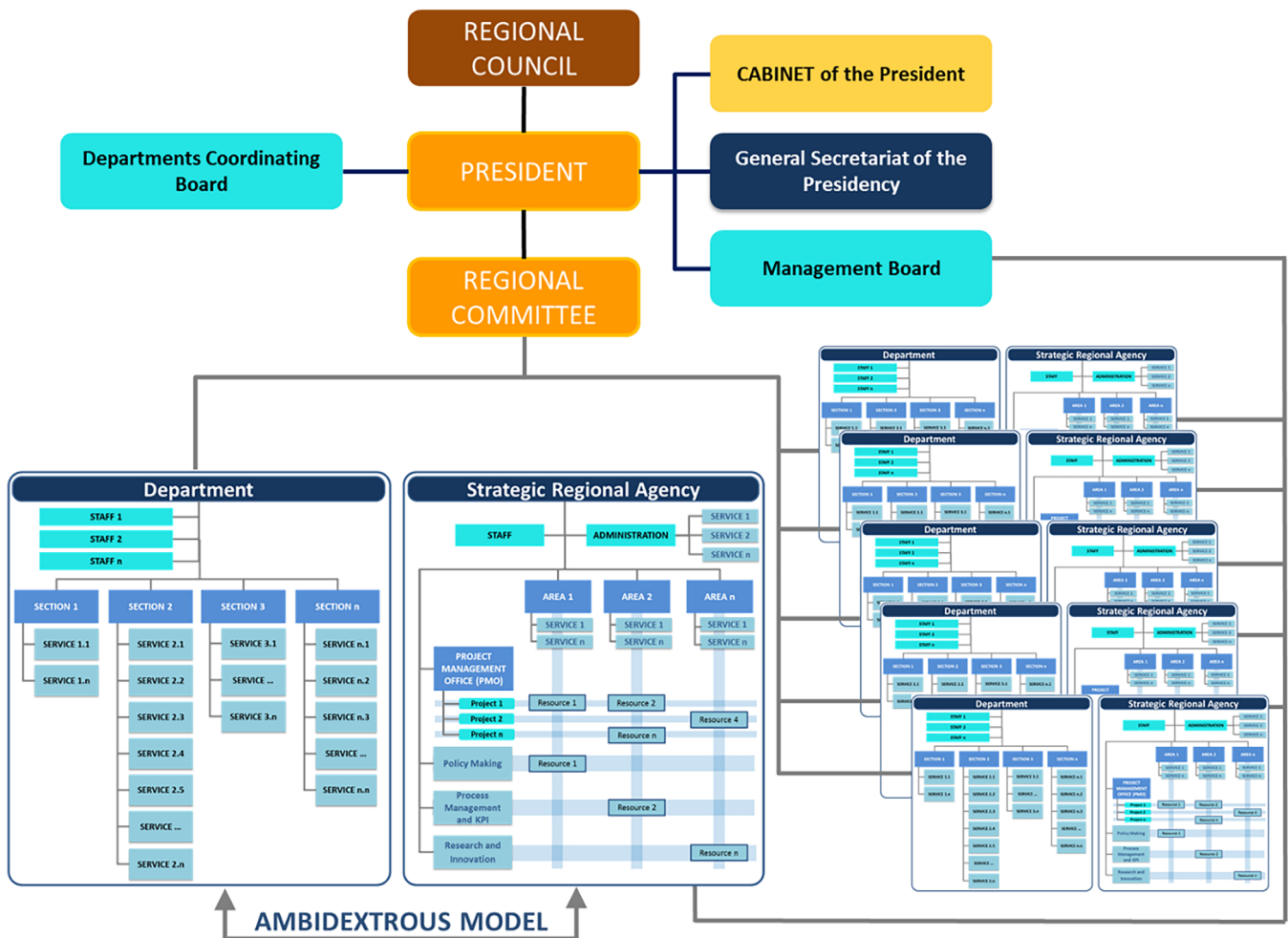


FIGURE 2 The ambidextrous organizational model: Departments and strategic regional agencies. Source: Adapted from Palmi et al., 2019

they represent organizational entities that should transmit the ability to develop research, experimenting innovation paths. By allowing the Areas' activities to change dynamically, the organization based on a matrix makes the Regional Strategic Agencies flexible, quickly responding to sudden changes and decentralizing the decision-making process. At the same time, in the matrix, the sustainable development of strategic skills is made possible by the turnover in the various areas, and by more streamlined and efficient structures. The horizontal lines of the matrix represent the distinctive technical and professional skills required to develop the activities of each Strategic Agency. The Project Management Office (PMO) represents the unit that manages the project activities developed for the departmental Sections and the entire portfolio of strategic projects (Kerzner, 2010). The project management office is a strategic tool to successfully operate in a turbulent and constantly evolving environment (Crawford & Helm, 2009; Figure 3).

The Process Management and KPI unit goal is to explicitly represent the Department's operation. The Business Process Management approach (Harmon, 2010) and the subsequent representation of process logic allows for the development of a reliable system for personnel performance measurement, strengthening transparency, and

collaboration through ICT tools and raising services' quality standards (Radu, Sendroiu, & Ionita, 2008).

The Policy Making unit goal is to study and propose new policies to the regional management, related to the topics of interest of the Agency's operational areas. The Research and Innovation unit goal is to monitor the change in cognitive questions expressed by national and international research, that is to manage the necessary know-how and provide professional assistance to the formalization and development of best project proposals, their control and on-time reporting, as well as the promotion of interconnections with regional, national, and international organizations operating on issues related to the Agency's operational mandate. As mentioned before, the design and development of a decision support system (DSS) are part of the actions to complete the implementation of AOM. The DSS must be developed, at a first level, as an environment for data collected within the organization, on the basis of the explicit representation of the internal processes and the general aspects of the quality of the service. Therefore, understanding the administrative processes is the necessary starting point for taking actions to improve and innovate services.

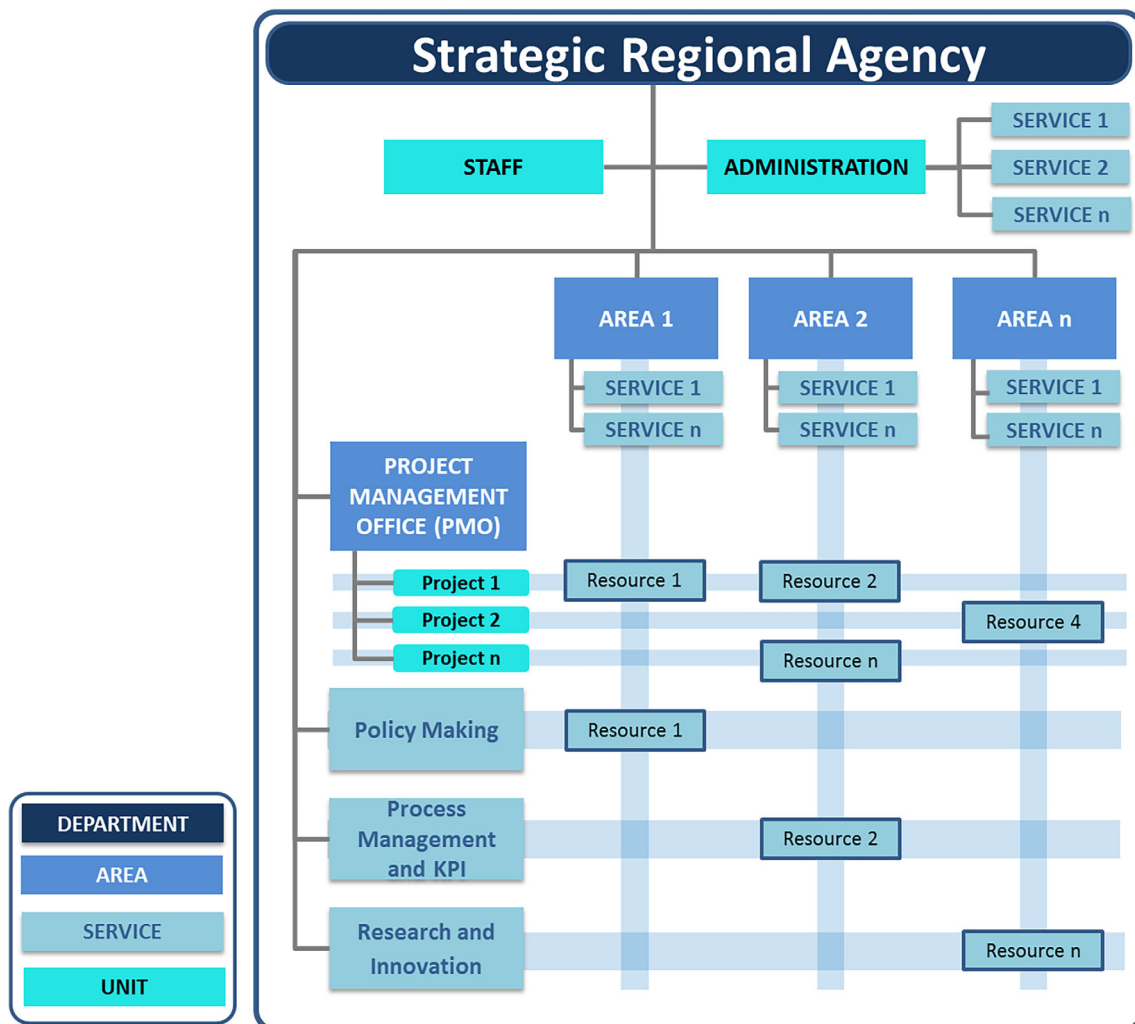


FIGURE 3 Matrix-based organization of strategic regional agencies. Source: Adapted from Palmi et al., 2019

A second level of the DSS will be dedicated to the analysis of data from the external environment, so as to evaluate the real effectiveness of the bureaucratic machine's operational capacity to face problems deriving from economic and social change.

The third level of the DSS will be dedicated to the measurement of perception, by citizens and businesses, by the state of the region and by the administrative capacity to provide services through transparent and participatory processes. "Vox populi" as primary source (Ang, 2011) and consensus will be able to grasp the level of citizens' trust (Ahn, Han, Kwak, Moon, & Jeong, 2007).

6 | CONCLUSIONS AND FUTURE DEVELOPMENTS

To be innovative and respond with increasing effectiveness and efficiency to stakeholders, the new public bodies observe an emergency perspective as a natural response to the complexity and variability of the environment, and the challenges of society, especially in the current context of difficulties for the Covid-19 health emergency and the consequent economic catastrophe.

This article presented the static (forms) and dynamic (elements) constituents of an ambidextrous organizational model. In the authors' perspective, if adopted by central administrations and public bodies, especially at the regional level, it can reach four interconnected dimensions, that is: organizational, individual, inter-organizational, and decision-making. This article also introduces requirements for a decision support system aimed at measuring regional performance and service quality.

The model is presented as a suitable organizational proposal that innovates the administration of a southern Italian region. The model envisaged ambidextrous roles assigned to a couple of regional departments and strategic agencies: the departments are responsible for *exploitation* activities; in the Agencies, *exploration* activities are carried out in a matrix structure. A specific Agency matrix is provided, based on four specific services capable of offering and managing innovation projects, updating policy effectiveness and public value, building research networks and improving the knowledge base, while keeping together the *exploration* function with *exploitation* activities. A possible drawback is the lack of control over the real impact of the model. Furthermore, regulatory constraints and delays controlled by the strict bureaucratic procedures required can render the AOM unit a difficult system to deal with.

Further research will therefore be directed to assess the real benefits of the new model, with respect to hierarchical organizational needs. As suggested by the literature (O'Reilly & Tushman, 2013), the model's update can be provided by a person in charge of managing the interfaces between *exploitation* and *exploration*, on the enhancement of integrated resources, on the role of organizational culture and on the involvement of the community in the path of innovation.

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