

## Balancing exploration and exploitation in public organizations: insights from the National School of Administration in Algeria

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### Abstract:

This paper aims at exploring how public organizations balance between exploration and exploitation, and thus gain ambidexterity.

We use qualitative method based on participant observation, documentary review, semi structured interviews and thematic analysis.

Enabling and inhibitors factors were found and theoretical model was represented in a synthesized figure.

Further research should use multi case studies to gain more results. They also can test our proposed model.

**Keywords:** Exploration, exploitation, organizational ambidexterity, public organizations, qualitative method.

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## **1. INTRODUCTION**

The topic of the relation between exploration and exploitation was first studied in firm's adaptive processes (Aagaard, 2011; March, 1991; Raisch & Birkinshaw, 2008; Simsek et al, 2009; Tushman & O'Reilly, 1996).

Indeed, in his seminal article, J. March (1991) noted that the fundamental adaptive challenge facing firms was the need to both exploit existing assets and capabilities, and provide for sufficient exploration to avoid being rendered irrelevant by changes in the competitive environment (O'Reilly & Tushman, 2013). In other words, the major issue that organizations are facing is the allocation of resources to ensure sufficient exploitation, to secure their current viability and to make enough exploration to maintain their future viability (March, 1991; O'Reilly & Tushman, 2013).

March (1991) considers that exploration in firms is about discovery, innovation, experimentation and risk taking; however, exploitation includes things as execution, efficiency, implementation and production. He illustrated that organizations engaging in one way to the detriment of the other will not obtain many benefits nor long term competitive advantage. He advocates ways of balancing between exploration and exploitation in business organizations.

Public organization would not be set apart of such an issue. In fact, public organizations have to be simultaneously efficient and innovative to face today's challenges. Thus, exploitation in public organization is captured by terms such as the responding to growing demands of citizens, fiscal sustainability and lower costs; while exploration, under the influence of new public management (NPM), is captured by terms like responding to growing citizens' expectations, digitization, and facing climate challenges (Cannaerts et al, 2020).

The ability of an organization for balancing exploration and exploitation is named "organizational ambidexterity" (Cannaerts et al, 2020; Palm & Lilja, 2017; Raish & Birkinshaw, 2008; Simsek et al, 2009; Tushman & O'Reilly, 1996); and research on this topic is rather recent and seldom (Boukamel & Emry, 2017; Cannaerts et al, 2020; Palm & Liljas, 2017).

In Algeria public sector organizations have to deal with current structural changes such as evolutions in legal environment, digitization, ..., led by political and economic reforms. In this article, the main question is: How can executives, in the Algerian public organizations, balance between exploration and exploitation, to gain organizational ambidexterity?

## **2. LITERATURE REVIEW**

Research work on organizations have long viewed the reconciliation of internal tensions with the often contradictory demands of the environment as an insurmountable compromise, until recent work presenting organizational solutions for the creation and sustainability of ambidexterity has been issued (S. Raish & J. Birkinshaw, 2008, p. 375-376).

According to March (1991), both exploration and exploitation are essential for organizations, but they compete for scarce resources and led them to make explicit and implicit choices between them. Furthermore, March (1991) also notes that returns from exploration are less certain, more remote in time and organizationally more distant from the place of adoption, than returns from exploitation. Consequently, adaptive processes – and organizations, in general – improve exploitation more rapidly than exploration.

He & Wong (2004) stated that exploration and exploitation require substantially different structures, processes, strategies, capabilities, and cultures; they may have different impact on firm adaptation and performance. However, authors insisted that firms should balance between exploration and exploitation to achieve sustainable performance and growth (He & Wong, 2004; March, 1991; Tushman & O'Reilly, 1996). This ability is called “organizational ambidexterity” (He & Wong, 2004; Palm & Lilja, 2017; Simsek et al, 2009; Tushman & O'Reilly, 1996). “*Managers need to be able to do both at the same time, that is, they need to be ambidextrous*” (Tushman & O'Reilly, 1996).

Several authors converged relatively on defining organizational ambidexterity. Thus, Tushman & O'Reilly (1996) consider it as the capacity of a firm to simultaneously pursue disruptive innovations and incremental innovations, through the combination of “contradictory” structures, processes, and cultures. Likewise, Raisch & Birkinshaw (2008) define

organizational ambidexterity as the ability of an organization to be efficient in the management of daily activities and simultaneously adapt to changes in its environment. As such, an idea well anchored in management sciences believes that the long-term success of a company depends on its ability to exploit its current capabilities while exploring fundamentally new skills (Raisch et al., 2009).

Simsek et al, (2009) consider that the concept of ambidexterity has been widely used to generally designate the ability of an organization to simultaneously carry out different and often competing strategic acts. Ambidexterity requires leaders to accomplish two critical tasks. First, they must be able to accurately sense changes in their environment, including potential changes in competition, technology, regulations and customers. Second, they must be able to act on these opportunities and threats; be able to seize them by reconfiguring tangible and intangible assets, to face new challenges (O'Reilly & Tushman, 2011).

Moreover, public organizations are not left out of such an evolution in management practices and research (Page et al, 2021). Public organizations have to be efficient and innovative to overcome today's challenges, such as demographic changes and digitization; they should reach ambidexterity (Cannaerts et al, 2020). But it is difficult to find studies exploring the concept of ambidexterity in public sector organizations; this difficulty is increased by the differences between public and private organizations such as shareholders, ownership and cultures (Cannaerts et al, 2020; Page et al, 2021; Palm & Lilja, 2016).

O'Reilly & Tushman (2011) put forward five necessary conditions for the success of organizational ambidexterity, allowing the exploration and exploitation sub-units to be managed separately (within the same unit) by taking advantage of the leverage effect of common assets, which allow the company adapt to new opportunities and threats:

- *“A compelling strategic intent that intellectually justifies the importance of both exploration and exploitation.*
- *An articulation of a common vision and values that provide for a common identity across the exploitative and exploratory units.*

- *A senior team that explicitly owns the unit's strategy of exploration and exploitation; there is a common-fate reward system; and the strategy is communicated relentlessly.*
- *Separate but aligned organizational architectures (business models, structure, incentives, metrics, and cultures) for the exploratory and exploitative units and targeted integration at both senior and tactical levels to properly leverage organizational assets.*
- *The ability of the senior leadership to tolerate and resolve the tensions arising from separate alignments” (O'Reilly & Tushman, 2011, p. 9).*

Therefore, by engaging in the simultaneous pursuit of exploration and exploitation, firms avoid the disadvantages linked to the exclusive focus on one of the two. Consequently, organizational ambidexterity is not just about achieving the same level of exploration and exploitation, but rather about maximizing the achievement of both (Simsek et al., 2009).

According to Raisch et al., (2009) one of the main tensions facing research on ambidexterity is whether ambidexterity manifests itself at the individual level or organizational level. While some works on the topic describe the organizational mechanisms (formal structures, horizontal coordination mechanisms) allowing ambidexterity to be achieved, other studies indicate that ambidexterity is anchored in the individual ability to explore and to exploit.

O'Reilly & Tushman (2013) identify three approaches to organizational ambidexterity in the literature: sequential ambidexterity; structural ambidexterity and; contextual ambidexterity. A summary of the three approaches is presented below:

*Sequential ambidexterity:* this is the oldest approach to organizational ambidexterity identified in the literature. It suggests that taking into account the “conflictual alignment” of innovation and efficiency requires firms to change their structures over time in order to align them with strategy (temporal shifting). Thus, the usefulness of the sequential ambidexterity may be limited to small companies lacking resources, operating in stable, slower moving environments.

In spite of the interesting nature of this approach, literature nevertheless,

does not show how firms vacillate from exploration to exploitation or the reverse.

Boukamel & Emry (2017) do not consider sequential ambidexterity as a category of organizational ambidexterity, because it refers to a temporal ambidexterity that creates a balanced partition between exploration and exploitation, rather than an effective organizational ability to manage them simultaneously.

*Structural (or simultaneous) ambidexterity:* this second path proposes to balance the trade-off between exploration and exploitation by pursuing them simultaneously with separate structures, units or subunits. It is also referred to as “architectural ambidexterity” (Boukamel & Emry, 2017). This approach requires not only distinct structures for exploration and exploitation, but different competencies, incentives, systems, cultures, and processes, each internally aligned. These separate units (or subunits) are linked by a common strategic intent, a set of shared values, and linking mechanisms to take advantage of shared assets. This seems to be a leadership issue more than a structural issue (Cannaerts et al, 2020).

In addition, some studies have explored the effects of structural ambidexterity at the inter-organizational level rather than being limited to the intra-organizational level (Page et al, 2021). They confirmed the positive effects of ambidexterity on firm performance. They concluded that intra-organizational and inter-organizational approaches to ambidexterity are complementary and not substitutable.

*Contextual ambidexterity:* the first two approaches propose to resolve the tensions between exploration and exploitation through structural solutions, while this approach proposed by Birkinshaw & Gibson (2004) suggests resolving this tensions through the individual level. Hence, contextual ambidexterity is a behavioural capacity that characterizes individuals – ambidextrous – within the organization.

Thus, ambidextrous individuals take initiatives and remain attentive to opportunities beyond their own work. They are cooperative and seek opportunities to combine their efforts with others. They always look to establish connections internally by cooperating with different parties.

Finally, they are multitaskers (Birkinshaw & C. Gibson, 2004).

Contextual ambidexterity needs a supportive organizational context characterized by discipline and trust, encouraging individuals to have their own judgments on the best sharing of their time between tasks dedicated to exploration and those dedicated to exploitation. Although different from each other, contextual ambidexterity and structural ambidexterity remain complementary.

Moreover, two particularities that may interfere into the deal of public organizations with exploration and exploitation are (Boukamel & Emry, 2017):

- The lack of competitive pressure: this can lead them to make inappropriate division between exploration and exploitation activities.
- The political pressure: can interfere with the status given to exploration in those organizations.

In addition, the literature on the public sector suggests that exploration is strongly associated with the concept of innovation; thus, it confronts the same hard and soft barriers as innovation in private organizations (Boukamel & Emry, 2017; Nunes, 2018). Also, structures in which decision-making processes are centralized, work processes formalized and work division is specialized promote efficiency and do not encourage innovation (Boukamel & Emry, 2017; O'Reilly & Tushman, 2013). Hence, those recognized features of public organizations (centralization, specialization and formalization), led Cannearts et al, (2020) to assume that those structures are often disadvantageous for exploration activities.

Studying combinations of leadership and design conditions<sup>1</sup> that play a role for ambidexterity in public organizations, Cannearts et al, (2020) realized a survey in public cultural and community centers in Flanders, Belgium. Their results demonstrated, first, how public organizations can implement and foster innovation while simultaneously focusing on efficiency. They

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<sup>1</sup> Organization design is defined as the complete specification of strategy, structure, processes, people, coordination and control, and incentive components of the organization (Burton, Obel, & Håkansson, 2015, p. 26 cited by Cannearts et al, 2020, p. 692).

considered that conditions of both structural and contextual ambidexterity are combined within one configurational path for ambidexterity in public organizations. Second, they assume that there is not one way to ambidexterity; hence, public organizations can follow multiple pathways to become ambidextrous. Finally, they consider that leadership is not a necessary condition for organizations seeking to become ambidextrous; but rather, it is a sufficient antecedent for ambidexterity.

Stating the lack of studies of organizational ambidexterity in the public sector, Palm & Lilja (2017) cited Bryson et al, (2008) who proposed a list of conditions that, if highly available, are likely to increase the possibility of organizational ambidexterity in public agencies:

- *“effective relations with oversight authorities (legislative, executive and judicial), which includes that senior management teams must be given both the support and leeway to pursue ambidexterity;*
- *responsive autonomy in relation to political oversight and influence;*
- *a statement of strategic intent that justifies ambidexterity;*
- *strong organizational culture, linked to mission;*
- *effective strategic leadership;*
- *strong planning and decision-making system;*
- *ambidextrous organizational architecture;*
- *effective relations with partners and suppliers; and*
- *effective utilization of technology, which includes that sustaining and disruptive technologies will be managed effectively”*.<sup>1</sup>

Moreover, Palm & Lilja (2017) study of two regional organizations, Region Halland and Region Jamtland in Sweden, leads them to propose nine key enablers for organizational ambidexterity:

- Organize for the good understanding of user needs and situation: managers should ensure that exploratory and exploitative processes are based on a user perspective.

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<sup>1</sup> Bryson et al, (2008), cited by Palm & Lilja (2017, p. 5).

- A management team that can realize and communicate the need for exploration: the manager team should support other contributors.
- Dialogue: it is very important to have a regular dialogue between those involved in exploration and those involved in exploitation, focusing on how to implement exploration outcomes in ordinary work process.
- Ambassadors: this enabler is closely related to the previous one. It concerns individuals who can act to incorporate exploratory elements into existing work processes.
- A culture that allows mistakes: management must encourage a forgiving and tolerant culture to empower employees to take initiatives and risks. This enabler is also related to the dialogue inside the organization.
- Budget for exploration and exploitation: organization must establish a budget for exploitative activities and for exploratory activities. This includes the formulation of objectives, performance indicators and evaluation system, for both exploration and exploitation.
- A system view: Managers and employees should understand how change in their own unit affects other units. Dialogue is again essential for achieving a holistic approach by staff and employees.
- Focus on implementing innovations: to develop the explorative part of the organization, managers should focus not only on generating ideas, but also on actually implementing them.
- Incentives for both exploration and exploitation: explorative and exploitative activities are equally important when – public – organizations set up incentives for achieving objectives and results.

### **3. METHOD**

To explore whether and how public organizations manage and balance between exploration and exploitation, and gain ambidexterity, we conduct comprehensive research, using a qualitative methodology, studying the case

of the National school of administration in Algiers.<sup>1</sup>

For this purpose, we first collected data using participant observation in the National school of administration, during three years and four months, from September 2020 to December 2023. In the same period, data were also gathered from internal sources such as annual and other periodic reports, projects descriptions, minutes of meetings, in addition to public sources, like published information about different activities.

After that, we conducted semi-structured interviews with the General Director and three directors; all of them are supposed to have experience with innovative projects and ideas (exploration) and maintain a high degree of efficiency (exploitation). Questions were based on the literature review on the topic of organizational ambidexterity, in both private and public sector.

After a brief presentation of the topic of dealing with the trade-off between exploration and exploitation in general, and in public organizations in particular, questions were asked about how the interviewees consider the capability of their organization to innovate, seize opportunities and to explore in general. Then questions were asked to understand at what level the organization master with efficiency issues; or to exploit. Each interview lasted between 50 and 90 minutes.

Following Palm & Lilja (2017) in their research on enabling factors for organizational ambidexterity in the public sector, we used thematic analysis to analyse data (Braun & Clarke, 2006; Paillé et Mucchielli, 2016; 2021).

According to Paillé et Mucchielli (2021), thematic analysis consists in systematically identifying, grouping and, subsidiarily, discursively examining the themes addressed in a corpus, whether it is a transcription of interviews or various types of documents (organizational, governmental, literary). It aims at finding “themes” to answer the • generic • question: what is fundamental about this statement, in this text; what is it about?

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<sup>1</sup> The National school of administration of Algiers is better known under its french denomination (Ecole nationale d’administration – ENA).

By using this method analysis, our purpose is to propose a theoretical model of how public organizations deal with the dichotomy of “explore and exploit”; and hence gain or “lose” ambidexterity.

### **The National school of administration (ENA)<sup>1</sup>**

The National School of Administration was created by the decree n° 64-155 dated June 8th 1964, as a training institution of highly qualified executives for the public administration in Algeria.

Since 1968 up to 2023, the National school of administration has trained 7,414 graduates (52 Promotions) including 302 foreign graduates from African and Arab countries.

The School is headed by a General Director (a Chief executive officer) controlled and supported by the following institutions & bodies:

- The Ministry of the Interior;
- The Board of Directors (the Administration Council);
- The Scientific and Pedagogic Council;
- Standing and ad hoc committees.

In addition, the School includes a Secretary General, in charge of all support functions, and four Directions which are: The Direction of studies; the internship Direction, the long life training and cooperation Direction, the documentation, research and consulting Center.

In the period 2020/2023, the School engaged in different – structuring – projects, mainly:

- The curriculum review: this project concerns the Direction of studies; it was led by a Commission of teachers (associate and permanents), headed by the General Director. It took over two years and resulted in a proposition of a new curriculum, including a new training architecture, ten majors (six of which are completely new). The new curriculum project is currently being validated by the competent authorities (the Ministry of the Interior, Local Authorities and Territorial Planning and the General Directorate of Public Service

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<sup>1</sup> École nationale d'administration (French denomination used).

and Administrative Reform). Its application is planned for the next year.

- The long-life training renewal: since the end of 2020, the Direction of long life training and cooperation, experienced a significant and increasing volume of activity, facing new challenges such as satisfying new training needs of different public institutions (the Mediator of the Republic, Algerian Court of Accounts, different Ministries, ...).
- The launch of expertise and consulting activity: The Documentation, Research and Consulting Center was able to obtain two consulting and expertise projects contracts, from the Social Development Agency, which is a public agency under the supervision of the Ministry in charge of the National Solidarity. The first project was successfully achieved, respecting deadline and quality criteria. The second project is ongoing; it concerns the year 2024. It is the first experience for the National School of Administration, working as a “consulting firm”.
- The ranking of the scientific journal of the school (Idara): in December 2024, the scientific journal of the National school of administration was behind a year's publishing delay. Two teams took turns to remedy this delay. Achievement of this objective is planned for June 2024.

At the same time the school deals with important projects, mainly:

- The civil service exam for the benefit of the Algerian Ministry of Foreign Affairs and National Community Abroad, in 2022: this civil service exam saw the registration of 26,000 candidates spread over five regional examination centers.
- The MENAPAR<sup>1</sup> congress, in 2022: in spite of organizing thematic conferences, this international scientific congress was the first in the school's history.

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<sup>1</sup> Middle East and north Africa public administration research ([www.menapar.org](http://www.menapar.org)).

## **4. RESULTS AND DISCUSSION**

### **4.1. RESULTS**

The purpose of this paper was to provide empirically grounded indications of factors enabling and those inhibiting the finding of an appropriate balance between exploration and exploitation in public organizations.

As it was highlighted by Palm & Lilja (2017), the results show that enablers are important for organizational ambidexterity in public organizations.

We also find that public organizations, in Algeria, are facing inhibiting factors for balancing between exploration and exploitation. “Ambidexterity-inhibitors” must be detected at different levels of the organization. This result was not emphasized in the literature; which focused more on enablers. We assume that it is important to detect “Organizational-ambidexterity-inhibitors” in order to understand them and to reduce – or cancel – their impacts.

The identified enablers and inhibitors of balancing between exploration and exploitation, and thus gaining ambidexterity in our case study are described below.

#### **4.1.1 Enablers of organizational ambidexterity:**

In our case study, the thematic analysis shows that public organizations can balance between both enablers of exploration and exploitation.

##### **a. Exploration enablers:**

*Political and economic reforms:* contexts characterized by important political and economic reforms require important efforts from public organizations to support changes, this leads them to explore. This result somewhat “contradicts” that of Boukamel & Emry (2017), cited above.

*Leadership:* the importance of leadership was previously highlighted by Cannaerts et al, (2020) and by Palm and Lilja (2017). Managers should have strong leadership skills to balance, not only between structures in charge of exploration and exploitation, but also between structures in charge of different explorative projects in terms of resources and time

allocation. Thus, gaining organizational ambidexterity is better than situational or transactional leadership and needs transforming leadership as defined by James MacGregor Burns in 1978.<sup>1</sup>

*Strategic planning:* as mentioned above, O'Reilly & Tushman (2011) indicated the importance of strategic intent and vision as necessary conditions for the success of organizational ambidexterity. In our context, strategic planning seems rather to be a new practice that adds to budget planning, which is already well established. Mezhouda (2019), has shed light on the importance of strategic planning in Algerian universities and scientific research institutions in gaining advantages such as identifying and addressing environmental opportunities and threats.

*Non-financial incentives:* public organizations have less flexibility in term of using their financial resources. Relying only upon financial motivations could have a negative effect on the relation between employees and executives, when there are few possibilities to distribute good bonuses. Non-financial incentives, like trust, respect and empathy could have better impact on employees' motivations, enhancing the capability of the organization to engage in explorative projects.

*Organizational learning:* we propose this enabler in the sense of Argyris & Schön (1978) who consider it as a process involving the detection and correction of an error. They distinguish two types of organizational learning: single-loop and double-loop learning. We assume that exploration can be enabled by double-loop learning which occurs when an error is detected and corrected in such a way that it involves the modification of the fundamental norms, policies, and objectives of an organization.

*Fairness in the allocating financial rewards:* it is important to recognize and reward effort by financial incentives. The particularity of public organization is that managers grant rewards by distributing equal amounts to staff, not according to the participation of each member. This

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<sup>1</sup> James MacGregor Burns, *Leadership* ([HarperCollins](#), 1978) ([ISBN 978-0-06-010588-4](#)).

can lead to demotivation of the most committed members.

### **b. Exploitation enablers**

*Skills improvement:* this should be done through training programs in favour of the employees, covering different fields especially new regulatory disposition, such as public procurement, public accounting, ...

*Digitalization:* public organizations with digitalized processes gain efficiency and innovation capabilities. All interviewees insisted on the importance of conducting digitalized processes in their daily work and new project management.

*Organizational learning:* in the sense of Argyris & Schön (1978), we assume that exploitation is more based on single-loop learning, which allows the organization to pursue its current policies or accomplish its present objectives when an error is detected and corrected.

## **4.1.2 Inhibitors of organizational ambidexterity**

Previous research on organisational ambidexterity in public sector focused on enablers with the implicit hypothesis that the lack of such enablers prevents or delays the achievement of organizational ambidexterity.

In addition to adhering to this implicit hypothesis, our research shows that organizational ambidexterity inhibitors, in the public sector, can be found. Their impact can be simultaneously on explorative and exploitative capabilities. Furthermore, we can distinguish between internal and external inhibitors.

### **a. Internal inhibitors**

*Organizational culture focusing on exploitation:* that culture leads to misunderstand the strategic vision and new strategies, or projects, engaging on exploration. It is also characterized by the coldness to adopt innovations and encouraging initiatives.

*Competition between structures in charge of exploration:* structures in charge of exploration compete for resources (human resources, material resources, financial resources) that are necessary to achieve projects or simply gain efficiency in daily work. If resources are not allocated in accordance with priorities, this will delay explorative projects.

*Outdated processes and structures:* public organizations suffer from outdated processes and the difficulty of revising them. For example, it is very difficult to change the structural organization, even if the current structure does not fit with the needs, missions and the ambitions of the organization.

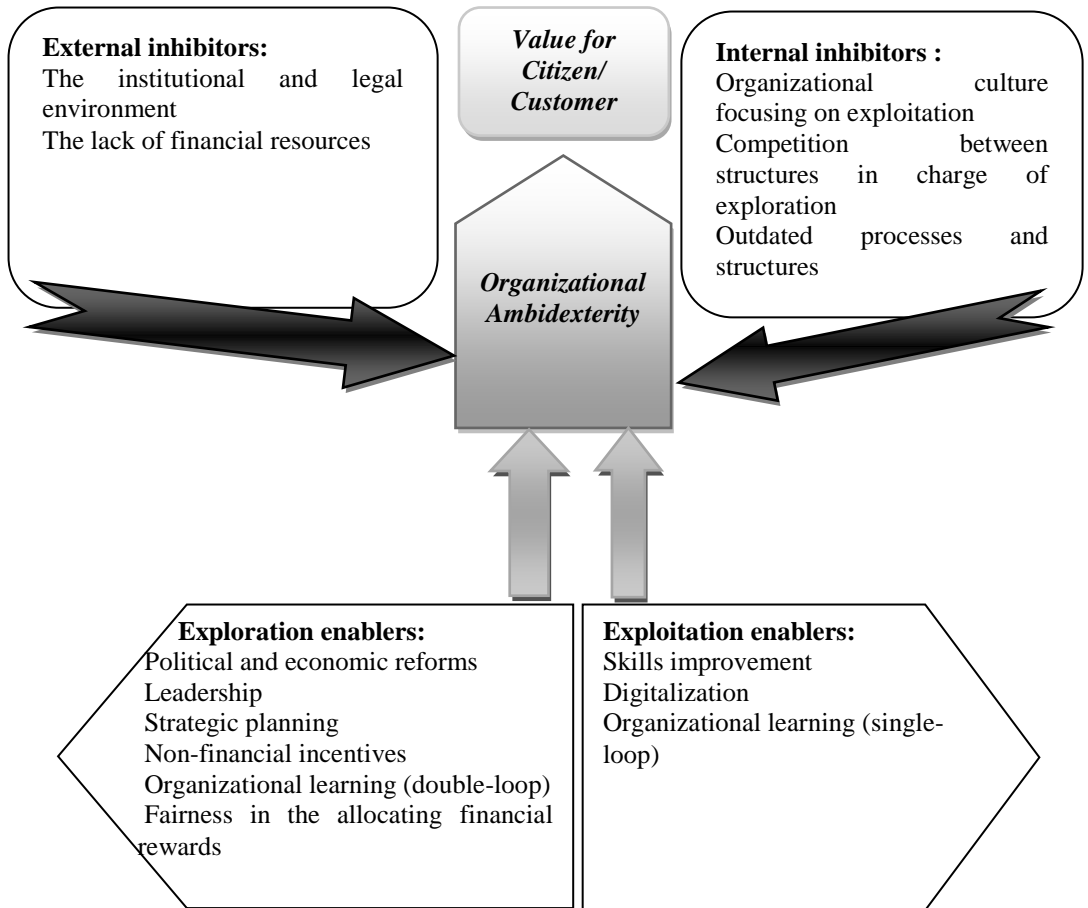
**b. External inhibitors**

*The institutional and legal environment:* despite deep reforms in the legal field such as the budgetary law and the public accounting, public organizations in Algeria are still facing “administrative heaviness”. This strongly inhibits their ability and their willingness to explore and exploit by imposing rigors in partnering, in using budget, recruiting, ...

*The lack of financial resources:* public organizations need financial resources that are scarce, particularly when governments are facing important public spending (healthcare system, education system, ...). For example, public organizations cannot pay high salary to executives and staff; thus, they cannot attract needed talents.

The described enablers and inhibitors for organizational ambidexterity are presented in the figure hereunder.

**Fig.1. Exploration-exploitation dilemma in public organizations**



**Source:** Proposed by the author

## 4.2. DISCUSSION

Our research first limitation is that it used a single case study with four interviewees. We intend to remedy to this constraint by the long period of participant observation, that lasted more than 3 years.

The second limitation is that our research took place in a single country which highlights the contextual nature of the results. This same limitation was previously expressed by Palm & Lilja (2017).

Moreover, previous research on public organizations focused on gaining ambidexterity with less interest to “loosing ambidexterity”.

## **5. CONCLUSION**

This paper tried to shed light on enablers and inhibitors of balancing between exploration and exploitation in a public organization.

Our research contributes to the literature on public management in the specific topic of organization ambidexterity in Algerian context.

We found that in their attempt to balance between explore and exploit, public organizations need enablers, but also face inhibitors.

Ambidexterity inhibitors are not directly found in the lack or the inexistence of enablers. For instance, we found that “the environment” can represent an enabler (political and economic reforms) or an inhibitor (institutional and legal environment).

Organizational ambidexterity is more an ongoing process, rather than a state point situation; it is a journey rather than a destination.

Further research should use multi-case studies and inductive approaches to address original results. They can also explore the topic by focusing more on the new public management paradigm and by testing our theoretical model.

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