Internal audit as a managerial innovation in the context of Moroccan local authorities: exposure of the explanatory determinants of its adoption

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Abstract— The academic literature on innovation has grown into a substantial body of literature and has drawn attention to sources of knowledge. However, little is known about the determinants of audit innovation. This paper seeks to identify, outline and categorize the explanatory determinants of the adoption of internal audit as a managerial innovation with an adaptation to the context of Moroccan local authorities.

The research initiated in this context agrees on a set of determinants that explain the adoption of managerial innovations within organizations. We use the theories of diffusion of innovation, neo-institutional and contingency to identify the determinants that may influence the decision to adopt internal auditing by Moroccan local authorities. Based on these theories, we highlight the influence of the organizational context of local authorities, in this case the size and personal characteristics of decision-makers, the institutional pressures of a coercive, normative and mimetic nature to which they are exposed, and finally the perceived characteristics of internal auditing as a managerial innovation in relation to the benefit it provides, its complexity of implementation and compatibility with the needs of the organization. Our article contributes to the dynamics of the introduction of internal control tools in Moroccan local authorities by highlighting the determinants of its adoption as a managerial innovation.

Keywords: internal audit ; managerial innovation ; local authorities.

Introduction

Studies in the field of innovation often focus on tech-

nological innovations. However, some researchers have extended theoretical and empirical models to non-R&D, technical or non-technological innovation. Indeed, the so-called "administrative" innovation was introduced following the work of Damanpour (1987), Teece (1980) and Evan (1966). In addition, Damanpour & Evan (1984), Ménard (1994) and Ayerbe (2006) were interested in "organizational" innovation. However, "managerial" innovation was introduced following the work of Damanpour & Aravind (2012), Birkinshaw & al. (2006, 2008), Hamel (2006), Evan & Black (1967), Downs Jr & Mohr (1976). The objective is to give new dimensions (other than technological) to managerial, administrative and organizational innovation by considering its impact on the development of the organization.

Efforts to identify and categorize the antecedents of innovation in managerial activities and systems have focused on proposing definitions based on the specific characteristics of managerial innovation, which can be defined as "the implementation by an organization of a new management method or the adoption of an existing practice, but perceived as new by the organization that adopts it, whose objective is the effectiveness and efficiency of internal organizational processes. Thus, the internal audit, through its objective of controlling risks for the creation of added value and the improvement of performance, is presented as a managerial innovation.

Many researches have tried to highlight the different motives that drive companies to adopt innovations. Indeed, Le Roy & al (2013) following a study of the work of Birkinshaw & al (2008), Hamel (2006) who identified the 175 most significant managerial innovations of the 20th century, categorizes the most remarkable innovations into 12 categories that mainly affect management control, accounting and costs, R&D, organizational structure, Balance Scorecard...Etc. Apart from Bassrih's (2019) survey in Morocco, no study, to our knowledge, has focused on understanding the determinants of internal audit adoption. However, the study conducted in Morocco attempts to determine the factors that influence the adoption of internal audit in Moroccan public institutions and companies. On our part, we have based ourselves on the general theory of diffusion of innovation of Rogers (1962, 1983, 1995, 2003), Moore & Benbasat (1991), Damanpour and Schneider (2006, 2008, 2009), Birkinshaw & Mol (2006, 2008, 2009, 2014) and Kimberly (1981), on the structural contingency theory of Bruns & Stalker (1961), Woodward (1958, 1965, 1970) and Lawrence & Lorsch (1967) and on the neo-institutional theory of Powell & Di-Maggio (1983, 1991) to highlight the explanatory determinants of the adoption of internal audit as an innovation in the context of Moroccan local authorities.

1) Definition of the concepts

1-1) The concept of managerial innovations

Research on innovation in management occupies a

prominent place in this systematic effort to broaden the field of analysis of innovation, several authors have directed their attention to so-called administrative, organizational and managerial innovations (Jaouen & Le Roy, 2013). The Petit Robert gives the following definition to the term innovation : « the introduction of new things, ideas or ways of doing something ». In terms of the literature, innovation is defined as « the generation and implementation of a practice, process, structure, or management technique that is new in relation to the state of the art and intended to advance organizational goals » (Birkinshaw & al., 2008, p. 829). Furthermore, Hamel defines managerial innovation « as a significant departure from traditional management principles, processes and practices, or as a departure from current organizational forms that significantly changes the way managerial work is done. Simply put, managerial innovation changes the way managers do what they do. » (Hamel, 2006, p.65). The concept "managerial innovation" was introduced by (Kimberly, 1981) to consecrate the will of researchers to highlight non-technological innovations. The actors in the field of innovation (companies, managers, public authorities, researchers, etc.) have focused their attention only on technological innovations. They have rarely been interested in other forms of innovation such as managerial innovation (Le Roy & al., 2013). In the early 1960s, researchers such as Evan (1966), Evan & Black (1967), Downs Jr & Mohr (1976) and Daft (1978) focused their work on nontechnological innovations to give rise to the new organizational and managerial dimensions of innovation. However, managerial innovations are difficult to identify from other technological innovations, as Hamel, Mol and Birkinshaw found. Indeed, managerial innovations are not patentable and have a tacit character, which is why the literature still does not reach a common definition of the concept of managerial innovation.

Referring to the work of Gilbert (1998), Kimberly (1981) and Schumpeter (1935), Alcouffe (2004) defines managerial innovation as « a new combination of material and/or conceptual means, already existing and/or new, in relation to the state of the art of management at the time when it first appears, and which makes it possible to implement a management technique that may be perceived as more or less new by the individual or any other unit of analysis considering it » (Alcouffe, 2004, p.65).

The literature review enabled us to identify a number of managerial innovations. We summarize them in the table below (appendix 1):

1-2) The concept of internal audit

On the occasion of the 58th International Conference, the IIA Board of Directors approved in its meeting of June 26, 1999 the new definition of internal audit: « Internal auditing is an independent, objective assurance and consulting activity designed to add value and improve an organization's operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes ¹». Following this definition, we deduce that the activity of internal auditing is based on specific characteristics. Indeed, the creation of added value and its contribution to organizations in terms of risk control and evaluation of internal control systems as well as to all departments of the organization in order to contribute to better managerial governance. This definition of internal auditing is a statement of the fundamental purpose, nature, and scope of internal auditing. The definition is an authoritative guide for the internal auditing profession and is part of the International Professional Practices Framework.

Dubouloz (2013) emphasizes that this definition validates the characteristics of managerial innovation since it is (i) new for the adopting organization, (ii) does not propose technical elements but organizational and managerial aspects, (iii) its main objective is the effectiveness and efficiency of activities, (iv) it concerns the entire organization. Moreover, internal audit is considered an innovative tool for an organization that seeks to control its activities by monitoring the risks that may affect the achievement of its objectives. Internal auditing brings about changes in the social system of the organization, it can lead to a reorganization of tasks and responsibilities as well as an organizational change, which is precisely what characterizes the managerial innovation put forward by Birkinshaw & al (2008).

2) The current dynamics of internal audit in Moroccan local authorities

In recent years, and under the effect of pressure from legislators and regulators, the public sector has

become increasingly involved in modernization movements, which have become a complex and exhilarating necessity, in order to be able to meet the needs of its users, and the demands for greater transparency in the use of public resources².

Moroccan public institutions and companies form the circle of major stakeholders in the country's development model and the reduction of territorial disparities. Their strong commitments in terms of governance, transparency, social and environmental responsibility and accountability show the great need for internal auditing, especially because of their growing economic and social weight, and the management requirements related to the rationalization of public spending and the optimization of resource use³.

The regionalization process in Morocco was strengthened through the new constitution of 2011, which constituted a qualitative leap in state management. By adopting the option of an advanced regionalization, considered following the speeches of His Majesty King Mohammed VI as the guiding thread and framing to define a roadmap for the regionalization project as a new approach for comprehensive reforms of the Kingdom.

The organic laws⁴ and circulars of the Minister of the Interior⁵ stipulate that local authorities must set up internal audit and provide their structures with internal

⁵ Circular No. 43 of July 28, 2016, Circular No. 13 of March 22, 2016 and Cir-

control tools.

The need for local authorities to implement internal auditing as a control activity that contributes to the effective and efficient exercise of their control powers is a necessity imposed by the size and complexity of the functions they perform, monitoring the degree of compliance with policies and procedures and verifying financial commitments by evaluating the effectiveness of their management system. This has led to the recognition of the role of internal auditing as an activity that affects all financial, human and operational aspects within local authorities. Moreover, the scope of internal auditing can be broadened to become a tool that provides a cross-functional view of departments and produces reliable information for decision-makers. Aware of the role of internal audit in the development of local authorities, the Ministry of the Interior has enshrined its adoption in the organic laws that set out the constitutional guidelines for new public management and good local governance. The central government has initiated its project to implement internal audit in local authorities through training, support and capacity building within the framework of Local Governance Programs (LGP) in partnership with the World Bank, US-Aide and the French Development Agency (AFD). In fact, the General Directorate of Local Authorities (DGCT) has launched a project to activate the internal audit service in the regions in 2021⁶. The objective is to diagnose the internal control of the re-

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² ED-DOUADI, S., & BAKOUR, C. (2022). L'efficacité de l'audit des programmes INDH : Balise d'une évaluation pertinente des programmes sociaux. International Journal of Accounting, Finance, Auditing, Management and Economics, 3(3-2), 477-501. https://doi.org/10.5281/zenodo.6582438

³ Ouriachi, N., & Bakhtaoui, M. (2021). The independence of internal audit in Public Institutions and companies in Morocco: Existence or absence -Case of a public companie-. International Journal of Accounting, Finance, Auditing, Management and Economics, 2(1), 184-205. https://doi.org/10.5281/zenodo.4474568

⁴ Organic laws no. 111-14, no. 112-14, no. 113-14 relating to regions, prefectures and provinces and communes respectively.

cular No. 32 of June 22, 2016.

 ⁶ In order to support the region in the promotion of good governance and the modernization of its management system, the Ministry of Interior has concludefeced a partnership agreement with the French Development Agency (AFD), aiming to activate the project of the internal audit function in the 12 regions of Cir the kingdom.

gions, to assess the risks, to carry out test missions, as well as to strengthen the capacities of the executives previously proposed by the regions to carry out the internal audit mission.

In the same context and at the level of communes, the General Directorate of Territorial Collectivities organized in October 2019, a meeting to raise awareness of the heads of 40 communes on the project of activation of internal audit services. This project is part of a partnership with the Fund for the Modernization of the Administration and aims to enable the target communes to concretely activate the internal audit service, this by equipping the executives occupying this function with the tools and techniques of execution and programming of internal audit missions as well as the follow-up of the recommendations issued.

3) Internal audit as a managerial innovation according to the theory of diffusion of innovation

Diffusion of innovation theory has been widely applied in the literature to study organizational behavior and its influence on the transfer of information technology, the adoption of new innovative practices, and the use of change agents to communicate innovative methods to organizational members. The diffusion approach focuses on the relationship between innovations and their successful implementation in the organization. The analysis of innovation diffusion typically begins with the design and continues with the implementation of the innovation.

Rogers' (1995) diffusion of innovation model is widely used to explain the adoption of managerial innovation. Rogers proposed the following description of an innovation « the process by which an innovation is communicated through certain channels of communication, over time and among members of a given social system » (Rogers, 1995, p.5), an innovation may have been invented a long time ago, but if individuals perceive it as new, then it may still be an innovation for them. This model, distinguishes five elements that act on the speed of adoption of an innovation within a group. Rogers (2003) described the process of innovation diffusion as «a process of uncertainty reduction » (p. 232), and he proposes attributes of innovations that help reduce uncertainty about the innovation. The attributes of innovations include five characteristics of innovations: (1) relative advantage, (2) compatibility, (3) complexity, (4) trialability, and (5) observability. Rogers (2003) stated that « individuals' perceptions of these characteristics predict the rate of adoption of innovations » (Rogers, 2003, p.219).

Relative advantage: Rogers (2003) defined relative advantage as *« the degree to which an innovation is perceived to be better than the idea it replaces »* (Rogers, 2003, p.229). Cost and motivation aspects of the social status of innovations are elements of relative advantage. Furthermore, Rogers classified innovations into two categories: preventive and incremental (nonpreventive) innovations; *« A preventive innovation is a new idea that an individual adopts now in order to reduce the probability of an undesirable future »* (Rogers, 2003, p.233). This definition fits perfectly with internal auditing as a preventive managerial innovation against risks that hinder the achievement of local government objectives, as well as with the remarks of statutory auditors. In addition, the relative advantage can be perceived from an economic, prestige, convenience or satisfaction point of view (Rahmouni, 2008).

To increase the adoption rate of innovations and make the relative advantage more effective, direct or indirect incentives can be used to support organizations in adopting an innovation. Incentives are part of the supporting and motivating factors. Indeed, the adoption of internal audit by local authorities can be associated with political and administrative support from the Ministry of the Interior and other stakeholders (political parties, the General Inspectorate of Territorial Administration, The General Inspectorate of Finance, Regional Court of Accounts... etc.) by ensuring permanent follow-up and support at different levels (training, communication, financing...).

Another motivating factor in the dissemination process is the compatibility attribute.

Compatibility: In some diffusion research, relative advantage and compatibility have been considered similar, although conceptually different. Rogers (2003) notes that *« compatibility is the degree to which an innovation is perceived to be compatible with existing values, past experiences, and the needs of potential adopters » (Rogers, 2003, p.15). Tornatzky & Klein (1982) note that compatibility refers to both the consistency of the innovation with the values or norms of the potential adopter as well as the consistency with the adopter's current practices. In her literature review, Hoerup (2001) describes that each* innovation influences teachers' opinions, beliefs, values, and views about teaching. If an innovation is compatible with the needs of an organization, then uncertainty will decrease and the adoption rate of the innovation will increase. Thus, the very naming of the innovation is an important element of compatibility. The name of the innovation must be meaningful to the potential adopter. The meaning of the innovation must also be clear. This is part of the complexity attribute.

It is clear that internal audit as a managerial innovation is perceived to be compatible with the values of accountability, transparency and responsibility, and with the experience and internal control needs of Moroccan local authorities. Moreover, the adoption factor associated with the size and financial resources of some local authorities, particularly rural communes, constitutes an element of inconsistency and incompatibility of internal audit with their needs as a result of the management style adopted and the possibility of establishing an internal control system exercised by the council of elected officials.

Complexity: Rogers (2003) defined complexity as *« the degree to which an innovation is perceived as relatively difficult to understand and use »* (Rogers, 2003, p.15). As Rogers indicated, unlike the other attributes, complexity is negatively correlated with adoption rate. Thus, excessive complexity of an innovation is a significant barrier to its adoption. Agarwal and Prasad (1997) suggest that innovations that are perceived as easier to use and less complex have a higher probability of being accepted and used by potential users. In this context, internal auditing may face

psychological resistance related to the acceptance of change and may be confused with inspection and spying. However, the implementation of internal auditing can be hindered by the lack of skills (internal auditors), which are not abundant in local authorities.

Trialability: According to Rogers (2003), *« trialability is the degree to which an innovation can be tried on a limited basis »* (Rogers, 2003, p.16). Furthermore, trialability is positively correlated with the rate of adoption. The more an innovation is experimented with, the faster its adoption. Second, the innovation can be changed or modified by the potential adopter. Increased reinvention can lead to faster adoption of the innovation. Another important factor in innovation adoption is vicarious testing, which is particularly useful for late adopters. However, Rogers stated that early adopters view the attribute of trying innovations as more important than late adopters.

Observability: The final characteristic of innovations is observability. Rogers (2003) defined observability as "the degree to which the results of an innovation are visible to others" (Rogers, 2003, p.16). The observability of innovation has been divided into two components by Moore & Benbasat (1991), they point out that observability is made up of two distinct constructs: tangibility of results and innovation in the context of adoption.

Like relative advantage, compatibility and trialability, observability is also positively correlated with the rate of adoption of an innovation.

In summary, Rogers (2003) argued that innovations with more relative advantage, compatibility, simplici-

ty, trialability, and observability will be adopted more quickly than other innovations. Rogers cautions, however, that « *getting a new idea adopted, even if it has clear advantages, is difficult* » (Rogers, 2003, p.1), so the availability of all of these innovation variables speeds up the innovation diffusion process.

According to Birkinshaw and Mol (2006), the process of adopting managerial innovation typically occurs in several recognizable stages. The key central phase, invention, is preceded by a combination of dissatisfaction with a problem within the organization (inside the organization) and inspiration from others (usually outside the organization). The invention is then followed by a process of internal validation and external diffusion to other organizations.

In addition, other explanatory factors of the adoption of the innovation are put forward by Rogers and Scott (1997) such as the communication channel which corresponds to the means by which messages are transmitted from one individual to another and the social system in which the innovation will be diffused and the perception of the influence of the adopted innovation. In addition, the promotional efforts of the change agents or leaders and promoters who take charge of the adoption of the innovation can influence the attitudes and behaviors of individuals towards the adoption of the innovation. In this context, the implementation of internal auditing is faced with internal resistance and blockages. As a result, change agents play a key role in the process of innovation adoption.

Moore and Benbasat (1991) add that the adoption of managerial innovation is associated with the voluntarist behavior of the various stakeholders. In the context of local authorities, this is the behavior of deciding whether or not to adopt internal audit.

Kimberly & Evanisko (1981) conceptualized innovation adoption as a multidimensional phenomenon. They emphasize that innovation must be associated with a program, product, or technique that is perceived as new to the organization considering its adoption and that is likely to affect the nature, location, quality, and quantity of information available for decision making. Indeed, based on their results, it can be accepted that the adoption of internal auditing is influenced by determinants of cosmopolitanism (degree of openness to new ideas and ways of doing things), competitive pressure and the degree of professionalism of leaders. Thus, the organizational level, size in particular, is clearly defined as a better determinant of innovation adoption.

4) Behavioral dynamics of change and innovation adoption : focus on neoinstitutional theory and contingency theory

This section examines the behavioral dynamics of change and the adoption of innovation in local governments. Internal audit is considered by the 2011 constitutional guidelines and the organic laws of Moroccan local authorities as a managerial condition for implementing the principles of good governance. Internal audit is part of a recent dynamic for local authorities which are now called upon to equip their structures with internal control tools and make the necessary behavioral adjustments. The study of institutions in general, and local authorities in particular, is not limited to understanding the consequences of an institutional arrangement, but focuses on the likely effects of dealing with different situations or problems. This is essential for developing a framework for discussing how best to design institutions to set the standards for good governance of public services as well as the decision-making processes to ensure good quality service (Ferris & Tang, 1993). Moreover, the concept of institution is defined as *« a set of durable, stable, abstract and impersonal rules, crystallized in laws, traditions or customs, and embedded in devices that implement and enforce, by consent and/or coercion, ways of organizing transactions »* (Menard, 2003).

4-1) Neo-institutional theory and the behavioral dynamics of change and adoption of managerial innovation

Institutional and neoinstitutional frameworks for modeling organizational behavior assert that organizations attempt to incorporate the norms of their institutional environments in order to gain legitimacy, resources, stability, and development (DiMaggio & Powell, 1983, Meyer & Rowan, 1977). These organizational behaviors can be described in terms of isomorphism, which is caused by institutional pressures and expectations. Isomorphism is a constraining process that forces one unit within a group to resemble other units that face a similar set of environmental conditions. From this perspective, organizational action largely reflects a pattern of operation that evolves over time and becomes legitimized within an organization and its environment (Chizema & Buck, 2006). Each organization is embedded in both its own internal institutional environment, which consists of structures, systems, and practices established in the past (Meyer & Rowan, 1977), and an external institutional environment, which is a context it shares with many other organizations.

The history of institutionalism is ancient, the current trend is largely inspired by the work of Selznick (1949 and 1957) classified under the label of early institutionalism. Selznick is considered the foundational founder for the development of institutional theory (Greenwood & Hinings, 2015). The development of neo-institutional theory was marked by the work of Meyer and Rowan (1977), Scott (2005), and (Boyne, Gould-Williams, Law, & Walker, 2005) which are of classified under the label of modern institutionalism.

To thrive, organizations must meet institutional expectations, even if these expectations have little to do with short-term technical notions of efficiency or performance (DiMaggio & Powell, 1983, Scott, 1991). Thus, institutional theory shows how organizational behaviors are responses not only to contextual pressures, but also to institutional pressures (e.g., political, normative, and general social expectations pressures). In fact, as noted earlier, institutional theory is not usually viewed as a theory of organizational change, but as an explanation of the uniformity (isomorphism) and stability of organizational arrangements in a given group or domain of organizations.

How do organizations respond when they perceive the existence of organizational innovations? Neoinstitu-

tional theory attempts to answer this question by suggesting that the response of organizations will be determined by homogenization of organizational forms, their practices and devices as well as isomorphism (Alexandra & Marie-Luce, 2017). It is proposed that the neoinstitutional theory contains ideas and suggestions that, once developed, provide the basis for the elements and proposals that follow. Indeed, for Di-Maggio and Powell (1983), this finding allows the study of the process that leads a unit of a group to resemble other units that are in the same conditions and environment. DiMaggio and Powell argue that this legitimacy-seeking process suggests that organizational characteristics change to become progressively compatible with the dominant traits of the environment (Huault, 2009).

DiMaggio & Powell (1983, 1991) distinguish three types of isomorphism to explain institutional change: coercive isomorphism, normative isomorphism and mimetic isomorphism.

Coercive isomorphism: occurs when external constituents on which an organization depends or cultural expectations in the society in which organizations operate force organizations to change in a certain way. These are pressures exerted or felt as a major force, as persuasion, or as invitations to join a community or to conform to its way of doing things (DiMaggio & Powell, 1983). Coercive pressures may also arise from the need to comply with official government regulations.

Coercion is exercised through the process of legitimization, authority, and central power to compel organizations to establish internal audit services that do not examine the adequacy of the internal control system but engage in a broader process of economy, efficiency, and effectiveness of the organization's activities and their effect on organizational performance (Al-Twaijry, Brierley, & Gwilliam, 2003).

Coercive isomorphism in the context of Moroccan local governments can be traced back to the constitutional orientations in terms of public sector government and to the various legal texts and laws that govern the activity of the latter. In this context, the organic laws 111-14 article 250, 112-14 article 212, 113-14 article 276 relating to Moroccan local authorities, the Decree n° 2.17.304 fixing the mechanisms and tools necessary to support the region in order to achieve good governance in the management of its affairs and in the exercise of the competences devolved to it, and the circulars of the Minister of the Interior relating to the norms of organization of local authorities.

Mimetic isomorphism: it arises from uncertainty. Building on earlier studies, DiMaggio and Powell (1983) argue that when conditions are uncertain, due, for example, to rapid changes in technology or the environment, organizations deal with this uncertainty by imitating what other apparently successful or legitimate organizations are doing. They refer to this behavior as "modeling" (an organization models itself on other organizations), with organizations copying successful models either because their actions are considered rational or because they want to avoid appearing deviant or backward. Indeed, when organizations are faced with problems with unsafe solutions, decision makers succumb to mimetic pressures from the environment to save on costs and avoid the risks borne by early adopters (Teo, Wei, & Benbasat, 2003). Mimetic pressures are manifested either by the prevalence of a successful practice or by its success in the context of adopting organizations (Haveman, 1993).

Normative isomorphism: stems from professionalization. DiMaggio and Powell (1983, p. 152) described professionalization as: « the collective struggle of members of a profession to define the conditions and methods of their work ... the conditions and methods of their work ... and to establish a cognitive basis and a and legitimation of their professional autonomy.» Scott (2005) points out that normative isomorphism is about society's moral duties and expectations of a social actor. At this stage, local authorities are governed by the norms and principles of good governance and new public management of which internal audit is an integral part. Thus, the standards of quality of services provided, labelling and certification can influence the adoption of internal audit. These normative pressures manifest themselves through dyadic interorganizational channels as well as through professional organizations (Powell and DiMaggio 1991).

Isomorphism has been used by several authors to explain the dynamics of behavioral change for the adoption of managerial innovations, we cite the conceptual framework of institutional effects in the legitimacy process of an organization by Mignerat and Rivard (2005). The model explains the legitimacy process of an organization through a study that combines ismophormism and the work on legitimacy strategies proposed by Oliver (1991) which are: acquiescence, compromise, avoidance, resistance and manipulation. On the other hand, Seyfried & al (2019) proposed a conceptual model of interaction of isomorphic pressures and institutional entrepreneurship for the management of higher education institutions, the study addresses the topic of isomorphism processes in the adoption of quality management and its impact to perceived effectiveness in the quality of teaching and learning. In addition, Bassrih (2019) proposed a conceptual model of the adoption of internal audit in Moroccan companies and public institutions. Bassrih mobilized neoinstitutional theory to explain the institutional pressures that Moroccan public companies and institutions face in adopting internal auditing.

Furthermore, one of the strengths of neoinstitutional theory is its ability to focus on aspects neglected by other theories of organizations. It addresses the institutional influences exerted by the state, standard-setting bodies and the context of the adopting organization. As well as the influence of regulation rather than that of the actor's autonomy (Huault, 2009).

4-2) Contingency theory and the explanation of the behavioral dynamics of change and the adoption of managerial innovation

In the last twenty years, contingency theories have become widely used in the management literature, following criticism of classical theories advocating a "*better way*" to organize and manage. In contrast to classical theories, contingency theories argue that organizational structure and management style depend on a set of contingency factors. The basic foundations of contingency theories are widely accepted by the underlying logic that states that there is no one best way to manage and the results of early research by Bruns and Stalker (1961), Woodward (1967) and Lawrence and Lorsch (1967) and later developments by Thompson (1967) and Galbrait, (1977) which provided theoretical bases for explaining the effectiveness of organizational models as a result of the study of contingency factors (size, environment, resources, technologies ...).

The organization is therefore faced with contingency factors to adapt its structure to its internal organization and its external environment. It must take into consideration internal and external contextual variables related to size, management, culture, politics, regulations, economy.

In what follows, we cite the reference works that have marked the history of the theory. We begin with Woodward (1958, 1965, 1970) following a study of the relationship between the organization and technology, he emphasizes that the structure of the organization must be adapted to its technology and with its work system. Indeed, the level of authority increases with the technical complexity. On their part, Bruns and Stalker (1961) following a research on the impact of the environment in 20 industrial companies in Great Britain, they affirm that the structure of an organization varies according to the degrees of complexity and stability of its direct environments. They distinguish two types of organization: the mechanistic structure characterized by a stable and not very innovative environment and the organic structure: adapted to a turbulent, evolving and uncertain environment. Furthermore, Lawrence and Lorsch (1967), following their research conducted between 1963 and 1966 on the analysis of 10 companies in different sectors, formulate and verify that in the presence of a turbulent and complex environment, organizations must be differentiated, but also the more they are internally differentiated between their departments, the more they need internal integration mechanisms to coordinate the action of the different departments (Cliche, 1993).

Among the works that have highlighted the influence of size on the organization, we can distinguish the works of the group of British researchers of the AS-TON school (Pugh et al., 1968, 1969) following a study carried out on 52 English organizations. The results of Aston's group support the idea that "the size of the organization is an important factor explaining differences in structure".

Azon & al (2010), in a contingent modeling of factors influencing the design of the management control system in local governments in sub-Saharan Africa, based on determinants arising from the institutional (legal, regulatory, financial and political pressures) and sociocultural (family, clan, ethnic and religious pressures) frameworks. Their results highlight that organizational and extra-organizational factors from the institutional and socio-cultural frameworks are key determinants of the design, adoption and effectiveness of the management control system of these local governments. Azon & al (2010) identify four types of factors that determine the effectiveness of an organization: (i) the or-

ganizational culture with two types of values⁷ associated with the notion of "control" and "flexibility" that managers must be aware that their organization must rely on; (ii) the organizational strategy that managers must implement, Azon & al invite them to two types of strategies: (iii) The organizational strategy that managers must implement, Azon & al invite them to two types of strategies: the so-called defensive strategy, which is characterized by targeted objectives following a formal performance measurement, and the prospective (offensive) strategy, which requires a more open and informal control system characterized by subjective control; (iv) The organizational structure and its influence on work efficiency, motivation, the flow of information and the control system; The human resource management policy and its importance in the development and effectiveness of organizations, Azon & al (2010) associate human capital with the overall performance of the organization, they also assert the importance of the incentive policy to shape the behavior of employees and orient them towards the objectives set by the organization.

5) Conceptual models explaining the adoption of managerial innovations

In the literature on the adoption and diffusion of managerial innovation in local governments, several conceptual models have been identified. We cite the conceptual model of Carassus & al (2013) on the factors that determine or influence managerial innovation in the context of French local authorities; Carassus & al.

7 The "control" value refers to predictability, stability, formalism, rigidity and conformity. On the other hand, the value "flexibility" refers to spontaneity, change, openness, adaptability and accountability.

LISER @ 2022 http://www.ijser.org (2013), based on the work of Damanpour and Schneider (2006, 2008), Lancer Julnes (2008) and Johansson and Siverbo (2009), identify three types of factors that influence the adoption and implementation of managerial innovation in French local governments, these are (i) factors that trigger adoption (the search for legitimacy, (i) factors triggering adoption (the search for legitimacy, political commitment and leadership), (ii) development factors (the commitment of administrative leadership, political support, the organizational and methodological system and financial resources) and (iii) the favorable environment (the collective will to change, the positive perception of the concepts of management and performance) (Carassus & al., 2013, P.21).

The results of Carassus & al. highlight the importance of the commitment of local political and administrative actors; the need for voluntary, self-directed, planned and gradual change; the influence of an enabling environment on the adoption and implementation of local managerial innovation initiatives and the introduction of managerial approaches. The analysis of the results also illustrates a balanced view of the human, technical and contextual factors behind managerial innovation. The adoption of management techniques in the public sector cannot be reduced to a simple quest for institutional legitimacy.

Furthermore, Damanpour & Schneider (2008) in their conceptual model of the factors that determine or influence managerial innovation in the context of US municipalities, develop direct and moderating hypotheses on the relationship between the characteristics of the innovation, the characteristics of the managers and the adoption of the innovation (Damanpour & Schneider, 2008, P.9). The analysis of their results can be exploited to explain the adoption of internal auditing by the characteristics of internal auditing as an innovation (cost, complexity, relative advantage) and the characteristics of the manager (age, experience, level of training, gender, attitude, political orientation), as well as internal communication to reduce the risk of uncertainty in the adoption decision.

6) Synthèse des déterminants susceptibles d'expliquer l'adoption de l'audit interne dans les collectivités territoriales marocaines

The literature review allowed us to detect several determinants that can be mobilized to explain the adoption of internal audit as a managerial innovation in local authorities. Three theories are the most frequent in the context of the adoption of innovations: the theory of diffusion of innovation that has been mobilized with reference to the work of Rogers (1962, 1983, 1995, 2003), Kimberly and Evanisko (1981), Moore and Benbasat (1991), Damanpour and Schneider (2006, 2008, 2009) and Birkinshaw and Mol (2006, 2008, 2009, 2014) ; structural contingency theory following the work of Bruns and Stalker (1961), Woodward (1958, 1965, 1970), and Lawrence and Lorsch (1967), and the neoinstitutional theory of Powell and DiMaggio (1983, 1991) (Appendix 2).

Discussion and Conclusion

The literature agrees on the importance of internal au-

diting within an entity. It aims to control risks and improve performance and helps its members to carry out their responsibilities effectively. Given that effective management control can be achieved, and that internal audit plays a key role in ensuring effective management in local governments, it is necessary to consider the determinants that may influence its adoption. Again, the literature often focuses on the factors of effectiveness of internal audit, but to our knowledge little is known about the determinants of audit adoption. Therefore, we have tried to propose a set of determinants that could explain the influence of the adoption of internal audit as a managerial innovation in local governments. Three theories constitute the basis for the analysis of the adoption of innovations, namely the theory of diffusion of innovation that has been mobilized with reference to the work of Rogers (1962, 1983, 1995, 2003), Kimberly and Evanisko (1981), Moore and Benbasat (1991), Damanpour and Schneider (2006, 2008, 2009) and Birkinshaw and Mol (2006, 2008, 2009, 2014); structural contingency theory following the work of Bruns and Stalker (1961), Woodward (1958, 1965, 1970), and Lawrence and Lorsch (1967), and the neoinstitutional theory of Powell and DiMaggio (1983, 1991).

The results of our research have allowed us to identify institutional pressures (coercive, normative and mimetic), the characteristics of internal auditing (relative advantage, compatibility and complexity), the size and personal characteristics of local authority managers, internal and external communication and finally voluntarism as determinants that can explain the adoption of internal auditing in Moroccan local authorities.

References

- (1) Agarwal, R., & Prasad, J. (1997). The role of innovation characteristics and perceived voluntariness in the acceptance of information technologies. *Decision sciences*, *28*(3), 557-582.
- (2) Al-Twaijry, A. A. M., Brierley, J. A., & Gwilliam, D. R. (2003). The development of internal audit in Saudi Arabia: An institutional theory perspective. *Critical Perspectives on Accounting*, 14(5), 507-531. https://doi.org/10.1016/S1045-2354(02)00158-2
- (3) Alcouffe, S. (2004). La diffusion et l'adoption des innovations managériales en comptabilité et controle de gestion : le cas de l'AFC en France École des Hautes Etudes Commerciales. HEC.
- (4) Alexandra, C., & Marie-Luce, G. (2017). L'innovation managériale sous le prisme du changement institutionnel: de la contrainte à l'entrepreneuriat. Dans *Conférence Internationale de Management Stratégique* (pp. 7-9).
- (5) Armbruster, H., Bikfalvi, A., Kinkel, S., & Lay, G. (2008).
 Organizational innovation: The challenge of measuring non-technical innovation in large-scale surveys. *technovation*, 28(10), 644-657.
- (6) Ayerbe, C. (2006). Innovations technologique et organisationnelle au sein de PME innovantes: complémentarité des processus, analyse comparative des mécanismes de diffusion. *Revue internationale PME Économie et gestion de la petite et moyenne entreprise*, 19(1), 9-34.
- (7) Azon, D. A. T., Caillie, D. V, & Pichault, F. (2010). Une approche théorique contingente du design des systèmes de contrôle de gestion : le cas des collectivités locales du Bénin.
- (8) Bassrih, M. (2019). L'audit interne dans les établissements publics marocaines: analyse des facteurs d'adoption et d'efficacité. Université Ibn Zohr.
- (9) Birkinshaw, J., Hamel, G., & Mol, M. J. (2008a). Management innovation. Academy of Management Review, 33(4), 825-845. https://doi.org/10.5465/AMR.2008.34421969
- (10) Birkinshaw, J., Hamel, G., & Mol, M. J. (2008b). Management innovation. *Academy of management Review*, 33(4), 825-845.
- (11) Birkinshaw, J. M., & Mol, M. J. (2006). How management innovation happens. *MIT Sloan management review*, 47(4), 81-88.
- (12) Boyne, G. A., Gould-Williams, J. S., Law, J., & Walker, R. M.
 (2005). Explaining the Adoption of Innovation: An Empirical Analysis of Public Management Reform. *Environment and Planning*

60

- *C: Government and Policy*, *23*(3), 419-435. https://doi.org/10.1068/c40m
- (13) Bruns, T., & Stalker, G. M. (1961). The management of innovation. *Tavistock, London*, 120-122.
- (14) Carassus, D., Favoreu, C., & Gardey, D. (2013). Factors that Determine or Influence Managerial Innovation in Public Contexts: The Case of Local Performance Management. *Public Organization Review*, 14(2), 245-266. https://doi.org/10.1007/s11115-013-0217-z
- (15) Chizema, A., & Buck, T. (2006). Neo-institutional theory and institutional change: Towards empirical tests on the « Americanization » of German executive pay. *International Business Review*, 15(5), 488-504. https://doi.org/10.1016/j.ibusrev.2006.05.007
- (16) Cliche, L. (1993). *l'influence de la relation structuretechnologie sur la satisfaction et la motivation*. l'université du québec à chicoutimi.
- (17) Daft, R. L. (1978). A dual-core model of organizational innovation. *Academy of management journal*, *21*(2), 193-210.
- (18) Damanpour, F. (1987). The adoption of technological, administrative, and ancillary innovations: Impact of organizational factors. *Journal of management*, *13*(4), 675-688.
- (19) Damanpour, F., & Aravind, D. (2012). Managerial innovation: Conceptions, processes, and antecedents. *Management and organization review*, 8(2), 423-454.
- (20) Damanpour, F., & Evan, W. M. (1984). Organizational innovation and performance: the problem of" organizational lag". *Administrative science quarterly*, 392-409.
- (21) Damanpour, F., & Schneider, M. (2008). Characteristics of innovation and innovation adoption in public organizations: Assessing the role of managers. *Journal of Public Administration Research and Theory*, *19*(3), 495-522. https://doi.org/10.1093/jopart/mun021
- (22) DiMaggio, P. J., & Powell, W. W. (1983). The Iron Cage Revisited: Institutional Isomorphism in Organizational Fields. *American Sociological Review*, 48(2), 147-160. Repéré à http://www.jstor.org/stable/2095101.
- (23) Downs Jr, G. W., & Mohr, L. B. (1976). Conceptual issues in the study of innovation. *Administrative science quarterly*, 700-714.
- (24) Dubouloz, S. (2013). L'innovation organisationnelle : antécédents et complémentarité : une approche intégrative appliquée au Lean Management. Université de Grenoble.
- (25) Evan, W. M. (1966). Organizational lag. *Human organization*, 25(1), 51-53.
- (26) Evan, W. M., & Black, G. (1967). Innovation in business organizations: some factors associated with success or failure of staff

proposals. The journal of Business, 40(4), 519-530.

- (27) Ferris, J. M., & Tang, S. Y. (1993). The new institutionalism and public administration: An overview. *Journal of Public Administration Research and Theory*, 3(1), 4-10. https://doi.org/10.1093/oxfordjournals.jpart.a037161
- (28) Galbraith, J. R. (1977). *Organization Design*. (S.I.): Addison-Wesley Publishing Company.
- (29) Gilbert, P. (1998). L'instrumentation de gestion. La technologie de gestion, science humaine. *Economica, Paris*.
- (30) Greenwood, R., & Hinings, C. R. (Bob). (2015). Institutions and Ideals: Philip Selznick's Legacy for Organizational Studies, iii. https://doi.org/10.1108/s0733-558x20150000044020
- (31) Hamel, G. (2006). The why, what, and how of management innovation. *Harvard business review*, *84*(2), 72.
- (32) Haveman, H. A. (1993). Follow the leader: Mimetic isomorphism and entry into new markets. *Administrative science quarterly*, 593-627.
- (33) Hoerup, S. L. (2001). Diffusion of an Innovation: Computer Technology Integration and the Role of Collaboration, 106.
- (34) Huault, I. (2009). Paul DiMaggio et Walter Powell . Des organisations en quête de l'egitimité. Les grands auteurs en management, 18. Repéré à http://halshs.archives-ouvertes.fr/docs/00/67/17/97/PDF/DiMaggio_Powell.pdf
- (35) Jaouen, A., & Le Roy, F. (2013). L'innovation managériale: Comptabilité Finance Marketing Contrôle Stratégie Management SI Production Entrepreneuriat RSE. (S.1.): Dunod.
- (36) Johansson, T., & Siverbo, S. (2009). Explaining the Utilization of Relative Performance Evaluation in Local Government:
 a Multi-Theoretical Study Using Data From Sweden. *Financial Accountability and Management*, 25(2), 197-224. https://doi.org/10.1111/j.1468-0408.2009.00474.x
- (37) Kimberly, J. R. (1981). "Managerial innovation". Handbook of organizational design, Nystrom P.C. et Starbuck W.H., vol. 1, Oxford University Press, New York, p. 84-104.
- (38) Kimberly, J. R., & Evanisko, M. J. (1981). Organizational innovation: The influence of individual, organizational, and contextual factors on hospital adoption of technological and administrative innovations. *Academy of management journal*, *24*(4), 689-713.
- (39) Lawrence, P. R., & Lorsch, J. W. (1967a). Differentiation and integration in complex organizations. *Administrative science quarterly*, 1-47.
- (40) Lawrence, P. R., & Lorsch, J. W. (1967b). Differentiation and Integration in Complex Organizations. *Administrative Science*

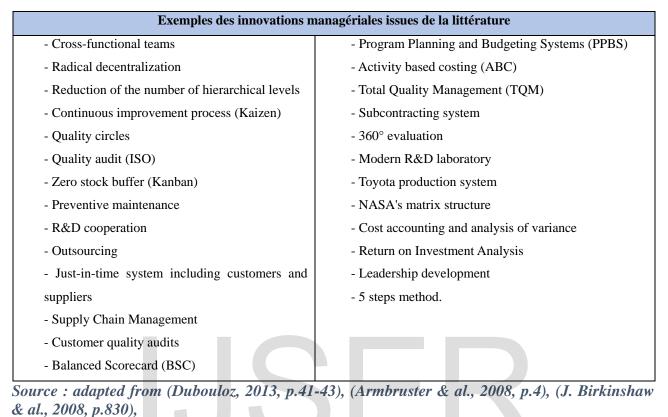
Quarterly, 12(1), 1. https://doi.org/10.2307/2391211

- (41) Le Roy, F., Robert, M., & Guiliani, P. (2013). L'innovation managériale. Généalogie, défis et perspectives. *Revue française de* gestion, 39(235), 77-90. https://doi.org/10.3166/rfg.235.77-90
- (42) Ménard, C. (1994). La nature de l'innovation organisationnelle: éléments de réflexion. (S.l.): (s.n.).
- (43) Ménard, C. (2003). l'approche néo-institutionnelle : des concepts, une méthode, des résultats. *L'Harmattan « Cahiers d'économie Politique »*, 103 à 118.
- (44) Meyer, J. W., & Rowan, B. (1977a). Institutionalized organizations: Formal structure as myth and ceremony. *American journal of sociology*, *83*(2), 340-363.
- (45) Meyer, J. W., & Rowan, B. (1977b). Institutionalized Organizations: Formal Structure as Myth and Ceremony. *American Journal of Sociology*, 83(2), 340-363. https://doi.org/10.1086/226550
- (46) Mignerat, M., & Rivard, S. (2005). Positioning the institutional perspective in information systems research. *Journal of Information Technology*, 24(4), 369-391.
- (47) Moore, G. C., & Benbasat, I. (1991). Development of an instrument to measure the perceptions of adopting an information technology innovation. *Information systems research*, 2(3), 192-222.
- (48) Oliver, C. (1991). Strategic responses to institutional processes. *Academy of management review*, *16*(1), 145-179.
- (49) Powell, W. W., & DiMaggio, P. J. (1991). *The new institutionalism in organizational analysis*. (S.l.): University of Chicago press.
- (50) Pugh, D. S., Hickson, D. J., & Hinings, C. R. (1969). An empirical taxonomy of structures of work organizations. *Administrative science quarterly*, 115-126.
- (51) Pugh, D. S., Hickson, D. J., Hinings, C. R., & Turner, C. (1968). Dimensions of organization structure. *Administrative science quarterly*, 65-105.
- (52) Rahmouni, A. (2008). La mise en œuvre de la comptabilité par activités dans les entreprises françaises : caractéristiques et facteurs d ' adoption et de succès To cite this version : HAL Id : tel-00348036 Ecole Doctorale de Toulon Institut d ' Administration des Entreprises d. Universite du sud toulon – var Ecole.
- (53) Rogers, E. M. (1995). *diffusion of innovations* (4th Editio). (S.I.): The Free Press.
- (54) Rogers, E. M. (2003). Diffusion of innovations 5e edition. New York: Simon & Schuster, Inc.
- (55) Rogers, E. M., & Scott, K. L. (1997). The diffusion of innovations model and outreach from the National Network of

Libraries of Medicine to Native American communities. *Retrieved March*, 22, 2006.

- (56) Schumpeter, J. (1935). Théorie de l'évolution économique. Recherches sur le profit, le crédit, l'intérêt et le cycle de la conjoncture. dalloz, paris. (S.l.): (s.n.).
- (57) Scott, W. R. (1991). Unpacking Institutional Arguments. S. 164–182 in: WB Powell, PJ DiMaggio (Hrsg.): The New Institutionalism in Organizational Analysis. Chicago, London: University of Chicago Press.
- (58) Scott, W. R. (2005). Institutional theory: Contributing to a theoretical research program. *Great minds in management: The process of theory development*, *37*(2), 460-484.
- (59) Selznick, P. (1949). *TVA and the Grass Roots*. (S.I.): University of California Press.
- (60) Selznick, P. (1957). *Leadership in administration: A sociological interpretation.* (S.I.): Evanston, IL: Row Peterson.
- (61) Seyfried, M., Ansmann, M., & Pohlenz, P. (2019). Institutional isomorphism, entrepreneurship and effectiveness: the adoption and implementation of quality management in teaching and learning in Germany. *Tertiary Education and Management*, 25(2), 115-129. https://doi.org/10.1007/s11233-019-09022-3
- (62) Teece, D. J. (1980). The diffusion of an administrative innovation. *Management science*, 26(5), 464-470.
- (63) Teo, H.-H., Wei, K. K., & Benbasat, I. (2003). Predicting intention to adopt interorganizational linkages: An institutional perspective. *MIS quarterly*, 19-49.
- (64) Thompson, J. D. (1967). Organizations in action: Social science bases of administrative theory. (S.I.): McGraw-Hill.
- (65) Tornatzky, L. G., & Klein, K. J. (1982). Innovation characteristics and innovation adoption-implementation: A metaanalysis of findings. *IEEE Transactions on engineering management*, (1), 28-45.
- (66) Woodward, J. (1958). Management and technology: Problems and progress in technology. *London: HMSO*.
- (67) Woodward, J. (1965). Industrial Organization, Theory and Practice. *London: Oxford University Press.*
- (68) Woodward, J. (1967). Industrial Organization: Theory and Practice. London: Oxford University Press. (S.l.): (s.n.). https://doi.org/10.2307/2229326
- (69) Woodward, J. (1970). Industrial organization: Behaviour and control. *Oxford: Oxford University Press*.

Appendix 1 : Examples of managerial innovations from the literature



Appendix 2 : factors that may explain the adoption of internal auditing

Theory	Authors and year	General contributions and determinants extracted
The diffusion of innovations theory	0	The adoption of internal auditing can be explained by the perceived attributes of internal auditing as an innovation: relative advantage, compatibility, complexity, trialability and observability.
	(Moore & Benbasat, 1991)	The adoption of internal auditing can be explained by the perceived characteristics of in- ternal auditing as an innovation: relative advantage, compatibility, complexity, trialability, observability, visibility, and demonstrability. Voluntarism: the behavior of deciding at will to adopt or not to adopt internal audit- ing.
	Damanpour	The adoption of internal auditing can be explained by:
	& schneider (2006, 2008,	-The characteristics of internal audit as an innovation (cost, complexity, relative ad- vantage).
	2009)	-The characteristics of the manager (age, experience, level of education, gender, attitude, political orientation).
		-Internal communication is a determining factor for the adoption of internal auditing, the objective being to reduce the risks of uncertainty around the adoption decision.

	Birkinshaw & Mol (2006 , 2008, 2009, 2014)	 Motivation concerns the facilitating factors and circumstances that lead individuals to consider developing their own management innovation. -Invention is an initial act of experimentation from which a hypothetical new management practice emerges. - implementation is the technical process of establishing the value of the new management innovation (i.e. in a real setting); - theorizing and labeling is a social process by which individuals within an organization are led to develop a new management practice. Internal and external communication is a determining factor in the adoption of innovations, the objective of which is to explain the benefits of adoption and the effects and contributions of internal auditing in dealing with avoidance and blockages.
	Kimberly & Evanisko (1981)	 internal audit adoption is influenced: -At the individual level by variables of cosmopolitanism (degree of openness to new ideas and ways of doing things), competitive pressure, and the degree of professionalism of leaders; -At the organizational level, size in particular is clearly defined as a better determinant of innovation adoption.
Structural contingency theory	Bruns & Stalker (1961) Woodward (1958, 1965, 1970)	The structure of an organization depends on two essential elements: The complexity of gathering information and the uncertainty of its environment. The organizational structure is a determining factor for the adoption of internal audit as a managerial innovation. Two types of structures are distinguished: Organic favorable to the adoption of the innovation and mechanistic. Structural characteristics (specialization, differentiation, formalization, and centralization) are determinants of organizational innovation; the first two act positively while the other two (mechanistic) act negatively. Thus, the size of the organization is a determining factor in the adoption of internal audit- ing following the ability to mobilize financial and human resources. Technology is the explanatory variable for perceived differences in organizational span of control, levels of authority, and modes of communication. The technology factor is more important than the history, ownership and size of the organizations. It is important to adapt the organization to the specific constraints of its environment. The organizational context is a determining factor in the adoption of internal auditing.
	Lawrence & Lorsch (1967)	 Differentiation: organizational segmentation into subsystems, each of which tends to develop attributes in relation to the requirements of the external environment. Integration: this consists of achieving unity of effort between the various subsystems in the accomplishment of the organization's tasks. In the face of the organization's openness to a turbulent and complex environment, internal audit is a determining factor in facilitating organizational coordination between departments.

Theory neo- institutional theory	(Powell DiMaggio, 1983, 1991)	The search for legitimacy contributes to the development of the phenomenon of isomorphism in the context of local authorities for the adoption of internal audit as a management tool: Coercive isomorphism : it comes from the pressures exerted by the STATE via public finance. Corresponds to the response of local authorities to various legal texts. Normative isomorphism : comes from compliance with professional standards by local
		Normative isomorphism: comes from compliance with professional standards by local authorities to establish a legitimate basis for their activities and working conditions. Mimetic isomorphism: local governments tend to imitate the most easily identifiable practices or those that are frequently adopted by local governments that appear legitimate.

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