

DOI: 10.5281/zenodo.20068228

DIFFUSION OF MANAGEMENT ACCOUNTING INNOVATIONS TO IMPROVE ORGANIZATIONS PERFORMANCE: PUBLIC SECTOR DRIVEN EVIDENCE

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Received: 06/04/2026
Accepted: 29/04/2026

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ABSTRACT

This study investigates the dynamics of management accounting change by exploring the initiation and implementation of the Balanced Scorecard (BSC) within Northern Ireland Executive Agencies (NIEAs). While prior research has primarily focused on the later stages of change, this paper addresses a critical gap by opening the "black box" of the initiation phase. Adopting a multi-theoretical framework that integrates Old Institutional Economics (OIE), New Institutional Sociology (NIS), and Diffusion of Innovation (DOI), the research employs a multiple-case study design involving ten agencies, utilizing 35 semi-structured interviews and extensive document triangulation. The findings identify three distinct patterns of change: fully-routinized, partially-routinized, and non-routinized (symbolic) change. A primary contribution of this research is the identification of principles knowledge as the critical determinant of change outcomes. The analysis demonstrates that the initiation phase functions as a "techno-institutional filter," where the depth of managerial understanding determines whether the innovation becomes embedded in organizational routines or remains a decoupled, cosmetic exercise. Contrary to traditional institutional assumptions, the study provides empirical evidence that routinized change can occur even under coercive external pressures, provided managers acquire sufficient principles knowledge before implementation. These results underscore the strategic importance of specialized training and adequate preparation periods to ensure the effective institutionalization of management accounting innovations in public sector organizations.

KEYWORDS: Diffusion-of-innovation, management accounting-change, public sector management, balanced-scorecard, institutional-theory.

1. INTRODUCTION

The question of why organizations subject to similar institutional pressures show different change outcomes remains a central yet vague issue in management accounting literature (Liguori & Steccolini, 2012; Contrafatto, 2014; Parker et al., 2021; Rana et al., 2022). Most extant studies have investigated the change process through a binary perspective: first, the adoption phase, focusing on motivations and drivers; and second, the implementation phase, examining inter-organizational factors that lead to specific outcomes. Consequently, previous research has tended to overlook a critical stage in the transformation process: the "initiation phase." This phase is where a new idea or system is first introduced and knowledge—both theoretical and practical—is acquired by individuals at various organizational levels (Rogers, 2003).

This research addresses this knowledge gap by employing a multiple-theory approach to propose a comprehensive framework for investigating the dynamic process of change. This framework emphasizes the crucial role of the initiation phase and offers new insights into the conceptualization and execution of management accounting innovations. Building upon Old Institutional Economics (OIE) (Burns and Scapens, 2000; Burns & Baldvinsdottir, 2005; Parker et al., 2021) and New Institutional Sociology (NIS) (Meyer & Rowan, 1977; Powell & DiMaggio, 1991; Rana et al., 2022; Wanderley et al., 2022), supplemented by Diffusion of Innovation (DOI) theory (Rogers, 1983, 1995, 2003), the proposed framework interprets the change process by placing significant emphasis on the initiation stage.

The primary purpose of this study is to empirically investigate the adoption and implementation of the Balanced Scorecard (BSC) as a management accounting innovation within Northern Ireland Executive Agencies (NIEAs), situated within the broader UK public sector. To achieve this objective, the study addresses the following research questions (RQs):

- RQ1: What are the main drivers of management accounting change, and how do they influence organizational actors' efforts during the initiation phase?
- RQ2: How do organizational actors' efforts during the initiation phase influence their perception, persuasion, and attitude towards change?
- RQ3: How does the initiation phase of the change process influence the subsequent

stages of its implementation?

To provide comprehensive answers to these questions, the empirical component of this research is designed as an exploratory case study.

2. THEORETICAL BACKGROUND

One stream of previous research has analysed management accounting and organizational innovations using the contingency theory. Research in that realm has initially identified the key contingencies out of which prescriptions to suit different scenarios of change could be developed (Otley, 2016). However, one of the main criticisms of research based on the contingency theory is the lack of process-based models, which enable the researcher to consider the dynamic context of change and to examine its mechanisms (Otley, 2016).

Another stream of research has taken the institutional theory perspectives to study management accounting change and how it evolves (Hopper & Bui, 2016). While NIS focuses on the role of external environmental forces in shaping and constraining organizations (Meyer & Rowan, 1977; Powell & DiMaggio, 1991; Ribeiro & Scapens, 2006; Scott, 2008; Rautiainen & Scapens, 2013; Wanderley et al., 2022), OIE concentrates on the importance of internal rules and routines in shaping the processes of change (Burns & Scapens, 2000; Burns & Baldvinsdottir, 2005; Taylor & Scapens, 2016). Both approaches are considered appropriate for this research as they shed light on the processes of management accounting change and the reasons and processes that drive the introduction of innovation into organizations. However, the literature has showed that researchers, who relied only on one institutional theory have paid a scant attention to the initiation phase of the process of change.

A third stream of research has studied accounting change from the perspective of DOI (Ax & Bjørnenak, 2005; Alcouffe et al., 2008; Jun & Weare, 2010; Ezzamel et al., 2014). In addition to the external and internal factors that facilitate or hinder the emergence of new management accounting techniques, DOI theory is also concerned with the process of implementing these techniques at the micro-level of organizations. Moreover, DOI theory sheds light on the different stages of the process of change and provides more insights into the initiation stage of this process (Rogers, 2003; Ezzamel et al., 2014). Although, most of the prior studies have focused on the diffusion of management accounting innovations and the motivations behind that diffusion, relatively little attention has been paid to the different stages of the change process and how

these stages might be affected by the external and internal factors in a manner that shapes the whole transformation process (Arnaboldi et al., 2010; Fältholm & Nilsson, 2010; Ezzamel et al., 2014). Thus, this study adopts a multi-theory approach combining the DOI and the institutional theory perspectives to achieve a better understanding of the change process. Integrating both theories is expected to shed more light on some areas of analysis, such as the interactions amongst different stages of the change process, that are always underestimated when researchers rely on a single-theory approach to study management accounting change.

3. THE PROPOSED FRAMEWORK

Among many models that emerged in the stream of DOI research, Rogers' framework (1983, 1995, 2003) is the most renowned one. Although it has attracted criticism, it has been defended as a widely used model in accounting research (Ezzamel et al., 2014). This study draws on Rogers' (1983, 1995, 2003) framework for two reasons beyond its wide use and longevity. First, it can be applied at both the individual and the organizational levels and involves investigation of different stages of adoption at different units of analysis. Second, this model provides a link between the motivations behind the change decision, the implementation gaps and the outcomes of the change process, allowing for accommodation of other theories, such as NIS and OIE, in order to develop a more comprehensive theory of the change.

According to Rogers' framework (2003), there are five stages of the change process in organizations grouped into two phases. First, the initiation phase, which comprises of the agenda-settings and the matching stages, is where all of the information-gathering, conceptualizing, and planning for the adoption of an innovation are taking place leading up to the decision to adopt or reject the innovation. Second, the implementation phase, which comprises of redefining, clarifying and routinizing stages, is where all the actions and decisions to put the innovation into use are supposed to be taken. Rogers (2003) indicated that these five stages usually occur when the innovation is imported by the organization from external sources. Later stages in the process cannot take place until earlier stages have been settled, either explicitly or implicitly. However, this may differ in the case when the innovation originated within the organization.

It is important to highlight the crucial role of information gathering and gaining adequate level of knowledge in the "initiation phase". According to

Rogers' (2003), the innovation-decision process is an information-seeking and processing, which reduce uncertainty about the innovation. Rogers (2003) differentiated between three types of knowledge in relation to an innovation; Awareness-knowledge: which means that the individual (or the decision-making unit) get some initial information about the existence of an innovation and about the possible advantages of this innovation. How-to knowledge: it consists of information which is required to implement the innovation properly. Adopters of an innovation would face greater problems if they had not obtained an adequate level of how-to knowledge prior to the trial and adoption stage of the innovation. Rejection or discontinuance is likely to be the result in this case. Principles knowledge: it consists of information regarding the functioning principles underlying how the innovation works. Although it is possible to adopt an innovation without this type of knowledge, the risk of misusing the new idea would be greater in this case, and may result in its failure.

In addition to describing the five stages of the innovation process, Rogers (2003) identified that prior conditions, such as crisis or problems in the previous practice, and the norms in the social system influence the diffusion of innovation. He defined the social system as "a set of interrelated units that are engaged in joint problem solving to accomplish a common goal" (Rogers, 1983, p. 24). The unit of social system according to Rogers (1983) can be individuals, informal groups or organizations. At the same time, Rogers (1983) highlighted the fact that system's norms, which are "the established behavior patterns for the members of a social system" (Rogers, 1983, p. 27), can become a barrier or an enabler to change. Therefore, Rogers' DOI theory is consistent with the NIS theory in that the organization might be under pressure to change in response to the norms of its organizational field (Meyer & Rowan, 1977; DiMaggio & Powell, 1983). Moreover, in line with the assumptions of the OIE, this change is constrained by the institutions embedded within the organization itself (Burns & Scapens, 2000). Figure 1 proposes a new way through which DOI theory can complement NIS and OIE theories to provide a more comprehensive framework for management accounting change.

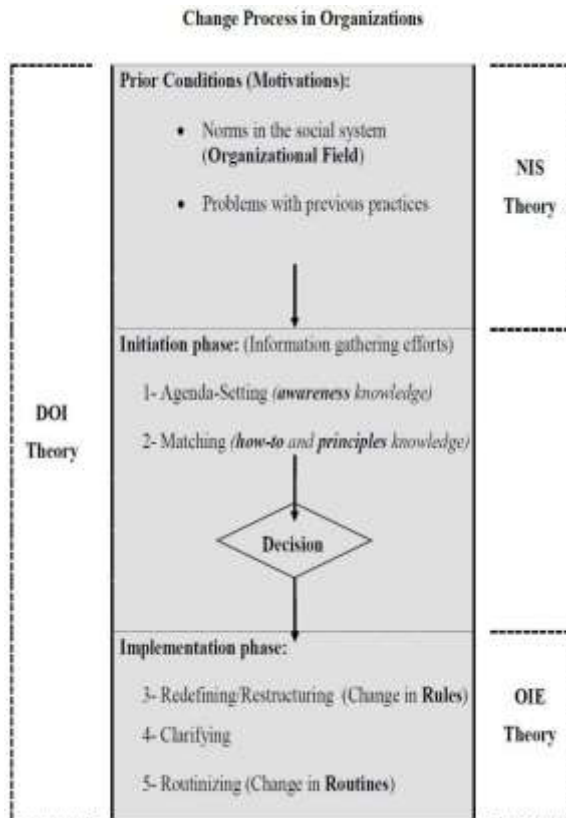


Figure 1: Research framework

According to the proposed framework, management accounting change is driven by prior conditions arising from both external and internal pressures. From a New Institutional Sociology (NIS) perspective, organizations are subject to coercive, mimetic, and normative pressures originating from their organizational field, which shape these prior conditions and compel conformity to gain legitimacy (DiMaggio & Powell, 1983, 1991). In addition, internal drivers—such as organizational crises and deficiencies in existing practices—may similarly motivate change by prompting the search for innovative solutions. Collectively, these external and internal conditions constitute the drivers that initiate the change process (Figure 1).

The initiation phase involves the acquisition of information and knowledge to reduce uncertainty surrounding the proposed change (Rogers, 1983, 1995, 2003) and the formation of organizational consensus and attitudes. This phase comprises two stages. The first, agenda-setting, occurs when organizational actors either identify salient problems and propose innovations or proactively scan the environment for ideas that may enhance efficiency or legitimacy. At this stage, “awareness knowledge” is developed, whereby key actors gain initial understanding of the innovation and its potential benefits. The second stage, matching, entails

assessing the feasibility and organizational fit of the proposed change. During this stage, actors form favourable or unfavourable attitudes based on their perceptions and persuasion. Accordingly, “how-to knowledge” (implementation-related information) and “principles knowledge” (understanding of underlying logic and assumptions) must be acquired, disseminated, and internalized. As emphasized by Rogers (2003), insufficient knowledge at this stage increases the likelihood of misuse and failure. The outcomes of this phase culminate in a decision to adopt or reject the innovation. However, such decisions vary in form: optional (independent organizational choice), collective (consensus-based), or authority (imposed by powerful actors). Collective and authority decisions are particularly prevalent in public sector contexts (Rogers, 2003), often reversing the ideal sequence of stages and increasing the risks of resistance, misuse, and decoupling.

Following adoption—whether voluntary or imposed—the implementation phase begins, defined as the set of actions and decisions required to operationalize the innovation (Rogers, 1983). This phase comprises three stages. The first, redefining, involves adapting the innovation to organizational context, potentially establishing new units and modifying formal rules and procedures. From an Old Institutional Economics (OIE) perspective, such changes primarily affect formal rules rather than entrenched routines (Burns & Scapens, 2000). The second stage, clarifying, entails the dissemination and explanation of new rules across the organization. This stage requires substantial investment in training and sufficient time to ensure that organizational members understand both how-to and principles knowledge. Accelerated or insufficient clarification may jeopardize the overall success of the change process (Rogers, 2003). The final stage, routinizing, occurs when new rules become embedded in daily organizational practices, reflecting alignment between formal structures and operational routines. However, OIE suggests that such alignment is not guaranteed; significant discrepancies between new rules and existing norms may delay or prevent routinization, resulting in symbolic rather than substantive change (Burns & Scapens, 2000). In such cases, the innovation may ultimately function as a superficial modification—“a modern bottle for the same juice”.

Although there have been many attempts to combine assumptions of DOI theory and institutional theories to investigate and analyse organizational changes (Perera et al., 2003; Jun & Weare, 2010; Arnaboldi et al., 2010; Falholm & Nilsson, 2010;

Ezzamel et al., 2014), the initiation phase of the change process has received relatively little attention and has been overlooked by researchers. This study aims to fill this gap by exploring the crucial role that this phase plays in shaping the managers' perceptions and attitudes towards the change and how this can, in turn, influence the whole process of transformation and its outcome.

3. RESEARCH METHOD

This is exploratory research, which aims to investigate how the initial stages of management accounting change influence and are influenced by other development stages of the change process. The current research investigates the implementation of the Balanced Scorecard (BSC) as a contemporary management accounting innovation tool. The case study method was adopted, since it allowed the researcher to have open conversations with the senior manager, who were involved in the event. This has provided a source of evidence that was not available in other historical methods (Yin, 2009). Data were gathered through conducting personal interviews with experts in management accounting change from ten executive agencies in the UK.

This research is designed as a holistic multiple-case study (Yin, 2009). A total of 35 interview sessions were conducted, on a one-to-one basis, with senior managers from 10 executive agencies in NI (27 interviews). In order to further triangulate the interviewees' data and collect additional evidence, seven interviews, with governmental parent departments, were also carried out. During three interview sessions, the researcher interviewed two participants. Therefore, this research reports the views and perceptions of 37 senior managers, including five CEOs, in addition to one external senior consultant.

Other forms of field secondary data were used to support the interviewing technique such as press, media, and other types of publications that may provide information about the organizations under investigation. This included official governmental reviews of the UK and NI agencies sector, business plans, corporate plans, and annual reports of the ten cases. All forms of secondary evidence were used to corroborate evidence from the primary data of interviews (Yin, 2009). All web-based data were eventually triangulated with the data collected from

the interviews to form the final case studies. Moreover, other internal documents including BSC guidance papers and older business plans that were not available online have been gathered during the interviews either upon request from the interviewer or voluntarily provided by the interviewee. The qualitative software (QSR NVivo) was used to facilitate the process of data analysis. This started with creating specific themes, according to the proposed research framework and the three research questions, in order to code the interviewees' responses. All transcripts of the interviews, in addition to other documents (i.e. business plans, annual reports and internal guidance), have been coded using the NVivo software into these themes. As a secondary source of data, collected documents were used to corroborate evidence from the primary data of interviews (Yin, 2009). Thus, document analysis has been made manually by the researcher to find more evidence supporting the claims of the interviewees. The results of the data analysis are presented in the next section.

4. FINDINGS AND ANALYSIS

This research focuses on Northern Ireland Executive Agencies (NIEAs) as a critical case study within the wider UK agency sector. While the average size of NIEAs is smaller than their British counterparts, their modes of operation and the guidance supporting business planning and performance reporting are largely identical (Hyndman & Eden, 2001). Since the early 2000s, a significant wave of management accounting change has impacted NIEAs, primarily centered on the adoption of the Balanced Scorecard (BSC).

4.1. *The Diffusion and Patterns of BSC Adoption*

As illustrated in Table 1, the adoption of the BSC as a multi-dimensional performance management system followed two distinct waves. Early adopters, such as the Ordnance Survey and Driving and Vehicle agencies (2001), were followed by a larger group of late adopters in the second half of the decade. This surge was primarily driven by the 2006 Review of Public Administration, which emphasized public service efficiency through "better ways of working" (Secretary of State for NI, 2006).

Table 1: Time of Change to the BSC in NI Executive Agencies (NIEAs).

Agency	Date of change	Category
Ordnance Survey	2001	Early Adopters
Driving and Vehicle	2001	
Social Security	2003	
Forensic Science	2006	
Land and Property Service	2007	Late adopters
Statistics and Research	2007	
Environment	2008	
Road Service	2008	
Prison Service	2008	
Courts and Tribunals	2009	

A comprehensive review of the corporate and business plans and annual reports of NIEAs revealed that 10 of 13 agencies in NI were adopting the BSC approach in their performance management systems at that time. However, initial analysis of the agencies internal and external publications revealed that many of the agencies had adopted the BSC approach in a symbolic manner, as a merely new presentation instrument to pack their old traditional plans. This phenomenon highlighted the need to investigate the change process in details in order to understand the reason for this incomplete implementation of the BSC in NIEAs.

The data analysis revealed different scenarios for management accounting change. These scenarios were grouped into three patterns: fully-routinized change, partially-routinized change, and non-routinized change. This section discusses these three patterns to find answers to the main and sub research questions.

4.2. First Pattern: Fully-Routinized Change

Only four agencies showed a management accounting change that was fully routinized and

changed their routine tasks of business planning and performance management. The four agencies that followed this pattern are: Ordnance and Survey agency, Land and Property agency, Forensic Science agency and Driving and Vehicle agency. Table (2) summarizes the common factors of the change process in these four agencies using the stages of change as proposed in the research framework.

As an outcome of change, the BSC approach was found to affect the whole planning process, as the agency’s plan was routinely designed using a strategy map to ensure that all measures and targets are aligned with the agency's strategic objectives. Moreover, the corporate scorecard was used as a base for designing the directorates and the teams’ annual plans, which in turn affected the individuals’ tasks and activities through the personal performance agreement of each member of staff.

In addition, the scorecards were always present in the annual, monthly and weekly reviews of performance. Therefore, the agencies in the first pattern group represent a case of management accounting change which was not only in organizations' rules but also reached the routines level.

Table 2: Change process and fully-routinized pattern.

Key Change Drivers	Normative pressure steamed by: <ul style="list-style-type: none"> ○ Professionalization ○ Norms related to the New Public Management
Initiation Phase	<p>1) Agenda setting:</p> Awareness knowledge about the proposed change (BSC) had been gained through the CEO's external training or previous experience. <p>2) Matching:</p> <ul style="list-style-type: none"> ○ The agencies had invested significant resources and efforts to gain the 'how-to' knowledge and the 'principles' knowledge through extensive training programs from external consulting firms. ○ Senior managers seemed to have a complete perception for the BSC as a strategic corporate planning and a comprehensive performance management approach that is applicable in their organizations. ○ Senior managers showed a favorable attitude towards the change and its potential to solve some of their previous practice's problems. Hence, a strong persuasion and attitude

<p style="text-align: center;">Decision</p>	<p style="text-align: center;">to change has been noticed across the organization. The decision to adopt the BSC was taken</p>
<p style="text-align: center;">Implementation Phase</p>	<p style="text-align: center;">3) Redefining/Restructure:</p> <ul style="list-style-type: none"> ○ The BSC was modified to fit the agencies' operations and its public sector context. ○ A specific implementation team was appointed to facilitate the change. ○ Significant changes in the rules of business planning and performance management had been set according to the proposed change.
	<p style="text-align: center;">4) Clarifying:</p> <p>Big efforts have been in place to clarify the new system and its associated rules to managers and staff members across all organizational levels.</p> <p>The new system is clearly understood by managers, teams and individuals.</p>
	<p style="text-align: center;">5) Routinizing:</p> <p>The new system (BSC) is fully routinized and has been embedded in the planning and performance management routinely tasks.</p>

According to the research framework, these outcomes were shaped by prior conditions and the Initiation Phase.

The introduction of the Balanced Scorecard (BSC) in the four agencies within this pattern did not follow a problem-initiated trajectory – where specific issues trigger the search for solutions – but rather an innovation-initiated trajectory, whereby the BSC was adopted as a potentially beneficial innovation. CEOs in these agencies possessed awareness knowledge of the BSC through external training, consultancy firms, accreditation bodies, and prior organizational experience. This aligns with NIS assumptions that normative pressures arise from professional training and managerial mobility across organizational fields (DiMaggio and Powell, 1991; Scott, 2008). An exception is the Land and Property Agency, which adopted the BSC under coercive pressure from its parent department yet still achieved a fully routinized change pattern. This outcome is attributable to experienced managers who joined the agency with substantial prior BSC expertise. Thus, while change drivers may initiate change, intra-organizational factors – particularly managerial knowledge and experience – significantly shape change dynamics, consistent with Liguori and Steccolini (2012).

Within the framework, the initiation phase entails gathering information and knowledge to reduce uncertainty surrounding the proposed change, encompassing activities of conceptualization, evaluation, and planning leading to adoption decisions (Rogers, 2003). Managerial perceptions and attitudes are also formed at this stage. Agencies in

this group, except Land and Property, invested substantial resources to acquire BSC-related knowledge. Rogers (2003) distinguishes three knowledge types: awareness, how-to, and principles knowledge. Together, these enable managers to understand the rationale of change, assess applicability, and adapt innovations to their context. CEOs initially introduced awareness knowledge to key actors, followed by the formation of specialized teams with training budgets to attend extensive external programs. These programs provided sufficient how-to and principles knowledge, enabling adaptation of the BSC to organizational and public sector contexts. Consequently, senior managers perceived the BSC as a valuable planning and management framework, fostering favourable attitudes toward change.

Adoption decisions in these agencies were generally voluntary and followed adequate preparation periods, except in the Land and Property Agency, where adoption was imposed prior to sufficient knowledge acquisition. Limited awareness knowledge was provided via brief internal workshops and guidance documents. However, the agency’s merger with the Ordnance and Survey agency introduced experienced managers with extensive BSC expertise. Their transfer of how-to and principles knowledge compensated for initial deficiencies, resulting in similarly favourable managerial attitudes despite coercive adoption.

The framework conceptualizes implementation in three stages: restructuring, clarifying, and routinizing. During restructuring, agencies significantly adapted the BSC – originally designed

for private sector contexts—to suit public sector priorities. For example, the “finance” perspective was relabelled “results” in the Land and Property and Driving and Vehicle agencies, while in the Ordnance and Survey and Forensic Science agencies it was retained but repositioned to reflect its secondary importance. These adaptations demonstrate the high level of principles knowledge acquired during initiation, enabling flexible application of the BSC.

Further evidence of effective implementation is the adoption of strategy maps (Kaplan and Norton, 2000), which operationalize the BSC’s underlying cause-and-effect logic by linking performance dimensions. All agencies incorporated strategy maps into planning processes to ensure alignment between objectives and overall strategy. Dedicated implementation teams were established to facilitate deployment and cascade the BSC to individual performance agreements. Additionally, BSC metrics were embedded in periodic performance reviews, reinforcing their centrality in organizational evaluation systems.

The clarifying stage involves disseminating and explaining new rules across the organization, requiring substantial effort to ensure that staff understand both how-to and principles knowledge. Agencies in this group demonstrated strong commitment to clarification, with implementation teams acting as expert units delivering internal training, workshops, and individualized support. These teams, composed of managers with extensive prior knowledge, also held responsibilities for resource allocation and performance monitoring against BSC targets.

Data analysis indicates that senior managers widely endorsed the BSC as an effective management tool and emphasized the importance of staff participation in its design and implementation, thereby reinforcing organizational alignment and facilitating the routinization of change.

4.3. Second Pattern: Partially-Routinized Change

According to the results of the data analysis, the Environment agency and the Statistics and Research agency showed a management accounting change that was also routinized but to a limited extent. In both agencies, the BSC was routinized only as a performance monitoring and measuring device. For instance, the BSC was accepted by the agency’s senior managers as a useful device to assess their teams’ performance. Moreover, it was used regularly during the directorates meetings to review their achievements and to take any necessary actions to lead the agencies’ performance towards the direction of their key performance indicators (KPIs). However, as a strategic planning framework, the BSC was decoupled from the planning process and did not make any change in the agencies’ regular planning activities. In other words, the BSC model was used in both agencies as a new presentation format to summarize the agencies’ traditional KPIs, rather than being a comprehensive approach for strategic business planning activities. Table (3) summarizes the common factors of the change process in both agencies, according to the stages proposed in the research framework. The trajectory of this pattern was heavily influenced by coercive pressure and time constraints.

Both agencies in this second group were subject to coercive pressure to change their management accounting systems. The decision to adopt the BSC, as a new planning and management system, was imposed on both agencies from their parent departments which also adopted the same technique. The agencies received the request to change from their parent departments with a very limited timescale to prepare for that change. Thus, agencies in this group started the initiation phase with a decision had been already taken to adopt the new system.

Table 3: Change process and partially-routinized pattern.

Change Drivers	Coercive pressure by the parent department
Decision	The agencies were forced by their departments to adopt the BSC

Initiation Phase	<p style="text-align: center;">1) Agenda setting:</p> <p>Awareness knowledge about the proposed change had been gained through some guidance documents and a sample structure of the BSC received from the parent department.</p>
	<p style="text-align: center;">2) Matching:</p> <ul style="list-style-type: none"> ○ The agencies invested some resources to get the 'how-to' knowledge through a very short external training by external consultants in addition to some internal workshops but only for a little number of managers in the top level. ○ The BSC is perceived by key organizational actors as a good communication and performance monitoring device. ○ A favorable attitude is found towards the BSC as a useful tool in measuring and monitoring performance but not as a strategic planning framework. Thus, managers' persuasion and attitude to change seemed to be less strong than the first group.
Implementation Phase	<p style="text-align: center;">3) Redefining/Restructure:</p> <ul style="list-style-type: none"> ○ The BSC model is slightly modified by the department and imposed to the agencies as a template to use. ○ The agencies did not change any of the planning rules except the format of the corporate and business plans which is presented in a four-quadrant BSC model. ○ Some limited changes in the rules of performance monitoring and individuals' assessment had been set according to the proposed change.
	<p style="text-align: center;">4) Clarifying:</p> <p>Little efforts have been made to clarify the how-to knowledge to senior and middle level managers only through short internal workshops and internally published guidance papers.</p>
	<p style="text-align: center;">5) Routinizing:</p> <p>The BSC is partially routinized in the agencies as a performance measurement device, but not as a strategic business planning approach.</p>

During the initiation phase of change, information gathering efforts in both agencies took place under a time pressure. Therefore, the change did not go through the initiation stages as supposed by the research framework. Instead, these agencies gained some awareness knowledge about the BSC through some guidance documents which they received from their departments along with an imposed decision to adopt this new system. Thus, the managers in both agencies requested additional training from outside the public sector to gain more knowledge about this new management technique. The agencies' key actors were not convinced that there was a real need to change as they did not find any problem in their previous practice. As a result, both agencies in the second group invested little' resources and efforts, in comparison to the first group, to gather information and to gain an adequate level of knowledge about the BSC. Both agencies relied on external consultants to deliver some in-place workshops, almost a one-day session, to a little number of managers at the senior level. However, due to the limited time and

resources, these workshops did not go intensely into the principles knowledge and the fundamental assumptions underlying the BSC as a comprehensive planning and performance management framework.

The results of the data analysis were in line with the DOI assumption that, the risk of misusing the new system would be greater and may result in its failure without having 'principles' knowledge about it (Rogers, 2003). The lack of the principles knowledge of the BSC affected the managers' perceptions of the BSC that they considered it, simply, as a new monitoring system through which they can measure their teams' performance against a set of KPIs. Favourable attitudes towards the new system were found in one agency (Environment agency), but unfavourable attitudes were found in the other agency (Statistics and Research agency). These different attitudes were more likely related to the managers' perception of the BSC as merely a new performance monitoring system that the latter agency's managers found unnecessary as they did not find any problem with their previous practice.

The implementation phase of change, in both agencies of this second pattern, seemed to be significantly affected by the managers' perceptions and knowledge of the BSC. In the 'restructuring' stage, managers in both agencies used the BSC template that they received from their parent departments. These templates were slightly modified by the departments to reflect the nature of the agencies as public sector organizations. The change in rules in both organizations was limited as they only changed the performance monitoring rules to accommodate the use of the BSC as an effective communication and measurement device. No change was found in the agencies' business planning rules but to present their annual business plans in a BSC four-quadrant format. This limited change in the agencies' rules implies that, the BSC was re-invented by the agencies' managers to work as a KPIs framework rather than a strategic planning framework. This result also is in line with the DOI assumption that, innovations may be re-invented during their implementation due to the adopter's lack of knowledge about these innovations, their ignorance of the innovation, or their inadequate learning (Rogers, 2003).

In the clarifying' stage, both agencies in this group showed little' efforts to clarify the new rules only through some internal guidance documents.

Moreover, the clarification of the new performance measurement rules was provided only to the managers at the senior and the middle management levels to show them how to use the BSC in their tasks of performance monitoring and review.

4.4. Third Pattern: Non-Routinized (Symbolic) Change

According to the results of the data analysis, four agencies of NIEAs showed an outcome of change that could only be seen as symbolic and did not reach the actual routine of the organizations. The agencies that showed this pattern of the change process were, Road Service agency, Social Security agency, Courts and Tribunals agency and Prison Service agency. In these agencies, the BSC was decoupled and made no change in either the business planning or the performance management activities of the agencies. As a result of this ineffective implementation, the Prison Service agency decided to terminate the use of the BSC in 2011, based on official criticisms that the agency received about its performance management procedures. Table 4 summarizes the common factors of the change process in these agencies' according to the stages proposed in the research framework. The dynamics of this pattern illustrate the risks of treating accounting change as a "fashion".

Table 4: Change process and non-routinized pattern.

Change Drivers	Coercive pressure by parent departments Normative pressure (professionalism) Innovativeness
Initiation Phase	1) Agenda setting: Awareness knowledge about the BSC had been obtained from the parent departments' guidance and some internal publications, or from previous experience of one of the senior managers.
	2) Matching: <ul style="list-style-type: none"> ○ The agencies had put little resources to get the 'how-to' knowledge through a very short internal workshops provided only to one or two of senior managers. ○ The BSC is perceived by key organizational actors as a good format to summarize and present their ordinary business plans. ○ Managers feel comfortable with the BSC but merely as a good presentation format that summarizes the agencies business plans in a fashionable way. Thus, managers' persuasion and attitude to change seemed to be weak in these agencies.
Decision	Forced/optional decisions to use the BSC were taken
Implementation Phase	3) Restructuring: <ul style="list-style-type: none"> - The agencies had re-invented the BSC framework to be merely a presentation format to be attached to their business plans. - No change in the planning or performance management rules have been made Except using the BSC four-quadrant model to present the annual plan in its annexes.
	4) Clarifying: No efforts were made to clarify the change to the agencies' managers, teams or individuals as the change is only in the shape of presenting the corporate and business plans.
	5) Routinizing: No change has happened either in the procedures of business planning or in the routinely tasks of performance

	management.
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The drivers and motivations to change were varied among this group. Two agencies (Road Service agency and Prison Service agency) changed under coercive pressure from their parent departments. However, the other two agencies were not subject to such pressure. Rather, one of the latter was motivated by mimetic pressure (Social Security agency), while the other one was motivated by the previous experience of a non-executive manager (Courts and Tribunals agency). Nevertheless, the pattern of the change process in these two agencies implies that they adopted the BSC as merely a fashionable management accounting innovation.

In general, agencies in this third pattern group showed “very little” or “little” efforts and resources to gain adequate knowledge of the BSC during the initiation phase. The managers' perceptions and attitudes towards the change seemed to be affected by the lack of the principles knowledge of the BSC. For instance, the results of the data analysis revealed that, most of the senior managers in this group of agencies perceived the BSC as merely a new format to summarize their annual plans in a modern way of presentation. Consequently, they found it irrational to invest the agency's resources in additional training or consultancy service as it was very simple, from their perspective, to summarize their traditional plans in a new four-quadrant format. This misperception, in turn, had a significant adverse effect on the managers' attitudes to change which were found unfavourable in all these four agencies.

The incomplete managers' perceptions of the BSC, during its initiation phase, had a substantial effect on the change implementation phase in these agencies. During the restructuring stage, the four agencies modified some of the titles of the original BSC four-quadrant model to make it useable with their traditional business plans. In other words, the agencies re-invented the BSC approach and converted it from a comprehensive performance management framework to be merely a presentation layout in which they could summarize their traditional annual plans. No real change was found in the planning or performance management rules apart from adding a final step to the planning process, which was to recap the plan in a four-quadrant summary sheet attached to the agencies' published documents. This deviation in the implementation phase was more likely related to the managers' lack of adequate principles knowledge of the BSC as a management accounting innovation (Rogers, 2003).

The results also revealed that, all agencies in this group placed no efforts to clarify the change to other organizational actors even at the senior level. This result seemed to be a logical consequence as the change was only in the layout of the business plan, which was a simple task for only one or two senior staff members who prepare the plan's final draft for publication purposes.

4.5. Analysis Synthesis

The data across the three patterns confirms that the Initiation Phase is not merely a precursor but a conditioning stage for the entire transformation. The acquisition of principles knowledge is the critical factor: where it was high (Pattern 1), change reached the routine level; where it was low or procedural (Patterns 2 and 3), the result was either strategic decoupling or purely symbolic adoption. This underscores the interplay between external institutional pressures (NIS) and internal organizational routines (OIE), mediated by the depth of information processing during the initiation of change.

5. CONCLUSION, IMPLICATIONS, LIMITATIONS AND FUTURE RESEARCH

This study explored the dynamics of management accounting change by investigating the initiation and implementation of the Balanced Scorecard (BSC) within Northern Ireland Executive Agencies (NIEAs). By adopting a multi-theoretical framework – integrating Old Institutional Economics (OIE), New Institutional Sociology (NIS), and Diffusion of Innovation (DOI) theory – the research addressed a critical gap in the literature by opening the "black box" of the initiation phase. The findings demonstrate that the initiation phase is the primary determinant of change outcomes, where the pivotal factor is the level of principles knowledge possessed by managers. This form of knowledge, which encompasses an understanding of the underlying logic and conceptual assumptions of the innovation, exerts a critical influence from the earliest stages of change. Contrary to prior literature suggesting that coercive pressures or top-down mandates inevitably lead to symbolic implementation or decoupling, this study provides empirical evidence that fully routinized change can occur even under coercive conditions, provided that managers acquire sufficient principles knowledge to bridge the gap between formal rules and organizational routines.

From a practical perspective, the findings suggest

that the effective institutionalization of management accounting change requires a clear understanding of both the rationale for change and its underlying conceptual foundations. Therefore, public sector organizations should prioritize investment in comprehensive training and development for senior managers, focusing on the "why" and "how" of the innovation rather than mere procedural steps. Furthermore, policy makers must allow for an adequate preparation period prior to implementation to enable the acquisition of principles knowledge and foster organizational consensus. The quality of training is also paramount; organizations benefit significantly from engaging highly qualified professional consultants or accredited trainers who can facilitate the deep diffusion of knowledge across the organization, preventing the innovation from becoming a mere reporting instrument for traditional practices.

Despite these contributions, the study is subject to

several limitations. As a multiple-case study, the research provides a cross-sectional view of the change process; however, a longitudinal approach would offer deeper insights into how organizational routines evolve or decay over a longer period. Additionally, the findings are bounded by the unique cultural, economic, and legal context of executive agencies in Northern Ireland and the UK, which necessitates caution when generalizing these results to different national or private-sector environments. Furthermore, while the study focused on the process and diffusion of the BSC, it did not empirically measure the direct impact of the innovation on organizational performance or financial outcomes. Consequently, future research should follow up on these findings to assess the long-term progress of these change patterns and evaluate the relationship between principles knowledge and actual performance improvements across diverse organizational contexts.

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