

Stockholm School of Economics
Department of Accounting
Master Thesis in Accounting & Financial Management
Spring 2017

Management Accounting Change through Pilots

A case study on Accelerated Change and Trojan Horse Mechanisms

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Abstract

This paper explores evolutionary management accounting change (MAC) and is aligned with the previous perception of MAC being an evolutionary phenomenon. However, we also share recent criticism that evolutionary MAC has not been described in its entirety, implying that the definition of evolutionary MAC has to be extended beyond being seen as merely gradual and slow. In order to analyze how traditional evolutionary MAC theory can be expanded, we draw theoretically on three dynamics of pilots in facilitating organizational change: Trigger, Momentum and Quick Results. Empirically, a case study of a technology implementation through the mechanism of pilots has been used to show how technology pilots can simultaneously accelerate MAC processes. This is interesting, since the concept of pilots has not been investigated in literature on management accounting change. We contribute to existing research by identifying a new evolutionary MAC pattern going beyond the traditional evolutionary MAC definition and refer to this new pattern as the *accelerated management accounting change process*. We further add to the insufficiently investigated discussion of informal MAC as we have observed the use of pilots in provoking current management accounting structures. We refer to this as the *Trojan Horse mechanism*, because just as Odysseus and his troops secretly infiltrated Troy with their wooden gift, we claim that pilots can inherently drive change of management accounting processes undercover.

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Keywords: Management Accounting Change, Pilot, Evolutionary theory

Acknowledgements

We would like to address some individuals and express our sincerest thanks to them since this study would never have been achievable without their contribution. Our appreciations go to the employees at GlobaTech for setting aside time for interviews and, especially, to our sponsors A.H. and H.O. for the practical help and showing interest and enthusiasm for our study. Furthermore, we would like to express our gratitude to Martin Carlsson-Wall, Associate Professor at the Department of Accounting at Stockholm School of Economics, for his valuable input and support throughout the process of this thesis.

Stockholm, May 2017

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1. Introduction

“Your master thesis has to be approved by our CEO, it is at his table”

(Change Manager A)

Bureaucracy in fast-paced market circumstances is often seen as a mechanism disabling organizations from flexibly adapting to a new market reality. Consequently, in recent years, more and more organizations have identified a need for continuous adjustments of their strategic directions and organizational forms due to these rapid rates of technological developments, hyper competition and increased market volatility (Frow et al. 2010). However, while companies often revise their strategy in light of changing external circumstances, internal accounting processes tend to be untouched for longer periods of time, leading researchers to argue that these processes are unable to capture the uncertainties present in fast-paced environments (e.g. Hansen et al. 2003, Wallander 1999). However, paradoxically despite both conceptual and empirical dissatisfaction with contemporary management accounting processes, there seems to be a low number of organizations deploying more flexible and adaptive management accounting structures (e.g. de Waal et al. 2011, Libby and Lindsay 2010).

Our case organization, GlobaTech (anonymized), falls into the abovementioned category of organizations being dissatisfied with present management accounting structures yet unable to change due to bureaucratic structures and low top-down prioritization of management accounting change. Our case follows the implementation of a new global automation initiative referred to as *“Process Automation Tool”* (PAT), which exemplifies the need for more flexible management accounting systems, as the initiative does not fit into the present budget process designed for long-term legacy projects such as ERP (Enterprise Resource Planning) implementations, characterized by substantial upfront investments and long execution time. As a consequence of this mismatch between management accounting structures and the short execution time of PAT, the change management team uses pilots – being defined as temporary projects executed in a limited part of the organizations, which require low initial investments – to circumvent baffling accounting structures in order to accelerate the PAT implementation process. The pilots at GlobaTech are officially and primarily used to drive the global implementation of the PAT technology, however, we are investigating how pilots are simultaneously influencing the change of GlobaTech’s management accounting systems.

This paper is in line with the common theoretical perception that management accounting change¹ (MAC) is an evolutionary pattern (e.g. Burns and Scapens 2000, Busco and Scapens 2011, Scapens and Jazayeri 2003), but we also share the criticism by a second, emergent stream of MAC research that evolutionary MAC has not been described in its entirety. Most process-oriented research has focused on retention and continuity (often empirically described as resistance to change) and has not investigated how MAC emerges (e.g. de Waal et al. 2011, Coad and Cullen 2006, Johansson and Siverbo 2009). Recent literature has criticized this sole focus on the retention process and argues that the understanding of evolutionary MAC shall be extended beyond the general belief that evolutionary MAC has to be gradual and slow (e.g. van der Steen 2011, Quinn 2014, Johansson and Siverbo 2009). By conceptualizing the sub processes of evolutionary MAC – *retention*, *variation* and *selection* – Johansson and Siverbo (2009) claim that both continuity and change are evolutionary outcomes and that an in-depth investigation of these sub processes shall be used to show the outdatedness of a binary view on MAC. They acknowledge that they have merely laid the foundation for a more holistic perspective on evolutionary MAC and call for further research to show how evolutionary MAC can be extended from being a one single scheme towards an area of various potential evolutionary MAC patterns.

Johansson and Siverbo (2009), however, do not pay particular attention on how informal MAC has to be incorporated into the evolutionary MAC theory. Other researchers have in contrast placed emphasis on supplementary dimensions of MAC including informal MAC and emphasize that when studying MAC, it is essential to analyze the relationship between formal and informal processes (e.g. Burns and Vaivio 2001, Burns and Scapens 2000). Informal MAC is often initiated due to local needs and without top management's involvement, thus often driven in a rather unsystematic fashion. These decentralized accounting initiatives can result in company-wide changes using a more bottom-up approach as local experimentation influences other parts of the organization resulting in an emergent organizational phenomenon. Yet, there is surprisingly little research on informal and indirect MAC and we hence also want to contribute to these additional dimensions on MAC.

¹ We hereinafter define management accounting change as the change of internal accounting structures such as performance management systems or budget structures

This paper contributes to the ongoing discussion on the extension of evolutionary MAC by investing this phenomenon through pilot theory. We believe that the integration of MAC and pilot literature will yield valuable results mainly due to three reasons. First, literature on MAC has identified momentum as a key pre-requisite for success (de Waal et al. 2011), while pilot literature has likewise identified creating momentum as a key output variable of pilots, making the concept of momentum as a distinct bridge between MAC and pilot literature. Second, pilots are potentially capable of invalidating prevalent management accounting structures by decoupling temporary behavior from prescribed formal behavior and hence triggering MAC (e.g. Billé 2010). Last, pilot literature has not yet been used to investigate MAC. This is not surprising as some researchers (e.g. Van Teijlingen and Hundley 2002) have argued that the outcomes produced by pilots have no academic validity due to their testing nature. However, with MAC seen as a process instead of an outcome in recent research, pilots can be viewed worthwhile to investigate the MAC process and we thus deem the breakdown by Johansson and Siverbo (2009) into the three MAC sub processes of *retention*, *variation* and *selection* as particularly useful. Pilots being a nascent theoretical concept of change applied by many companies in practice, we expect to gain new insights into the three sub processes of MAC by analyzing them through the pilot lens.

To answer the two abovementioned research gaps, we have developed a theoretical framework which analyses the sub processes of MAC by drawing upon the emergent stream of pilot literature. Consequently, this paper aims to investigate evolutionary MAC in order to answer the two following research questions:

- 1.) *How can the definition of evolutionary MAC be extended?*
- 2.) *How can the knowledge of formal vs. informal MAC be expanded?*

As a consequence of the debate between evolutionary and revolutionary MAC being a relatively nascent area in previous research, we have conducted a single qualitative in-depth case study on a technology company based in Sweden in order to contribute a suggestive theory with an invitation for further work in this area. We conducted 18 semi-structured interviews with different stakeholders across and outside the organization, who were either involved in the PAT initiative or in the management accounting processes.

We contribute to existing research by identifying a new evolutionary MAC pattern going beyond seeing evolutionary MAC as merely gradual and slow. We refer to this new pattern as the *accelerated management accounting change process*, characterized by an initial ‘kick-start’ period. The change pattern of accelerated change is comparable to a reversed hockey stick, which illustrates the catapulted start of the change process and transcends into a traditional pattern of evolutionary change when momentum – in our case created by pilots – starts to fade out. However, we do not claim that accelerated change is the only extension that has to be made to evolutionary MAC, but recognize that evolutionary theory could be extended with several change patterns that deviate from the general perception of evolutionary change being merely gradual and slow. We further add to the under investigated discussion of informal MAC as we have observed the use of pilots in provoking current management accounting structures without the clear communication to change these. We refer to this pattern as the *Trojan Horse mechanism*, because just as Odysseus and his troops secretly infiltrated Troy with their wooden gift, the pilots inherently drive the change of management accounting systems undercover.

The remainder of this paper is structured as follows: Part 2 contains both previous research on MAC with a particular focus on the discussion on evolutionary vs. revolutionary MAC and an elaboration on the organizational change literature on pilots. Moreover, we present our theoretical framework. Part 3 displays our research methods and the reasoning behind them. Part 4 is a discussion of our findings structured along our developed theoretical framework and delivers the necessary empirical data for our in-depth analysis in part 5, which aims to deliver answers to our research questions described above. Lastly, section 6 provides an overview about our conclusions and the limitations of our study calling for further research.

2. Theoretical Foundation

Section 2.1 problematizes two different streams of research on management accounting change arguing for an extension of evolutionary management accounting theory. We provide an overview about the emergent stream of pilot literature in section 2.2 and thereafter present our theoretical framework in Chapter 2.3, which synthesizes management accounting change with pilot theory.

2.1 Domain Theory

2.1.1 The Dichotomy of Evolutionary and Revolutionary Management Accounting Change

Within the management accounting change (MAC) literature, there has been a shift towards a greater emphasis on MAC seen as a process rather than the previous perception of MAC as an outcome (Burns and Scapens 2000, Busco and Scapens 2011). The process oriented theorists have focused their research towards the incremental evolutionary chain of MAC, where routines over time become institutionalized as rules. To understand the process of MAC, this section will discuss two streams of literature – one which we refer to as the early stream of MAC and a second as the emergent stream, which provides further depth and critical perspectives to the MAC field.

Burns and Scapens (2000) belong to the early stream of literature and are often referred to and used as starting-point, since they elaborate on the interlink between *institutional realm* and *action realm*, the latter being the day-to-day operational activities of its organizational members. The model provided by them describes the *process of institutionalization* and seeks to explain the dynamics of how MAC (seen as rules and routines) is an ongoing process where new actions emerge and develop over time, eventually becoming institutionalized. The process for routines to transform into rules includes encoding, enacting, reproduction and institutionalization. An incremental process is conceptualized and defined as evolutionary MAC, while management accounting practices, such as performance measurement or budgets, both shape and are shaped by an organization's institutions. The explanation of the existing gap between routines and rules is suggested to be the current routines and rules. They are likely to be the problem if the emerging change conflicts with them, however, this challenge is usually overcome over time in the cumulative process of change.

Moreover, culture could take place as a *passive and adaptive role* in MAC. This is in line with the findings of Busco and Scapens (2011), who claim that common MAC is evolutionary, which

is defined as “*an ongoing process of cognitive and behavioral redefinition, which affects agents’ motivation for action*” (p. 344), building on to early MAC stream by adding cultural elements. The ongoing evolutionary process can be subject for shocks or unfreezing episodes by both internal and external events.

Minor disruptions to current institutions build on and adapt over time, avoiding short-term radical and fundamental changes (Scapens and Jazayeri 2003). Empirical examples relating to this evolutionary approach on MAC can also be found in the literature about ERP system implementations, which in turn facilitate a gradual change in existing management accounting systems, showing that incremental MAC, although often being organic in its nature, also can be actively triggered using tools such as ERP systems. In addition, a case study of Greek hospitality organizations conducted by Makrygiannakis and Jack (2016) concluded that evolutionary change of a budgeting system can take time, in the particular case presented the existing practices were improved incrementally resulting in a four-year process. The study showed that clusters of agents within the organization drove the MAC by reflecting on how the current budgeting systems impacted both the organization and their own projects and then acted to modify them. That way, in combination with senior management pressure for more consistency in application of existing norms, gradual modifications of budgeting systems were implemented.

In contrast to evolutionary MAC stands a more disruptive revolutionary phenomenon, which could also be compared to an outcome-focused approach describing change as an at one point in time event (e.g. Scapens 1994, Burns and Scapens 2000). This could for example be demonstrated by introducing a one-off radical plan of budget reorientation (Makrygiannakis and Jack 2016). Burns and Scapens (2000) claim that revolutionary MAC is indicated by performing major change to existing rules and routines which fundamentally challenge existing institutions. Examples on when this type of MAC is most likely to happen are the connection to acquisitions, major market events and economic recession. Siti-Nabiha and Scapens (2005) further develop the argument and argue that revolutionary MAC is not necessarily a matter of companies facing technological disruption but rather related to the implementation of systems, which in a significant way impacts existing institutions. For this to happen, some researchers suggest that major threats to the survival of the organization, either to specific sub-groups or the organization as a whole, are probably necessary for it to be subject for such revolutionary MAC (Scapens and Jazayeri 2003).

Previous research on MAC into a beyond budgeting² system has empirically proven that the implementation of such systems is often radical, as it stands in conflict with existing routines and pushes responsibility down to front-line members of the organization, out ruling the possibility of certain others (Hope and Fraser 2003, Burns and Scapens 2000, Player 2003, Sandalgaard and Bukh 2013, Bourmistrov and Kaarboe 2013). This is most often triggered by external factors such as major changes in the market environment or economic crises.

2.1.2 Emerging Research Extending the Binary View of Management Accounting Change

As abovementioned, management accounting change (MAC) has traditionally been conceived as a dichotomy between evolutionary and revolutionary, the latter being an-one-point-in-time event and the former being most often described as change over a longer period of time. However, the early research stream's view of MAC seems to be of simplified nature although it has served well as a sound foundation. For example, evidence has shown that trust and power issues should be analyzed simultaneously and not as decoupled to the process of institutionalization as in the past (Robalo 2014). Dawson (2003) suggests that the importance of analyzing substance, politics and context of MAC is essential with further literature supporting this claim being discussed below.

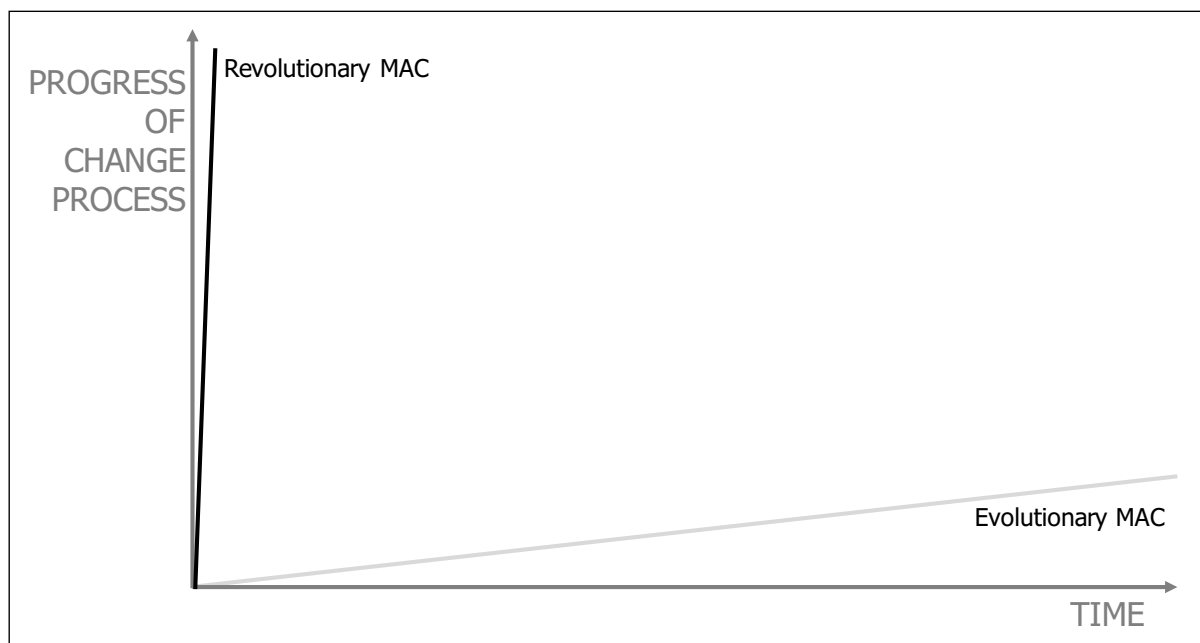


Figure 1: The Traditional Binary View of MAC

² Beyond Budgeting refers to a relatively new concept of more flexible budgeting, going beyond typical command-and-control structures

Granlund (2001) suggests a more complex view on accounting system change compared to previous research – he argues that it is difficult to start and drive reproduction of routines because of dimensions such as the role and potential impact of a single individual to drive or oppose an initiative in the present greater social system. More recent research has been made within this area, e.g. exploring financial planning in times of uncertainty (e.g. Howcroft 2006, Ekholm and Wallin 2011). These authors conclude that budgets are often appreciated by members of an organization as it gives comfort and stability in an otherwise uncertain world, yet change is often seen necessary for most organizations to stay competitive. They also claim that MAC is often hindered by financial planning process owners as it may threaten the status quo and implicitly “risk” a shift in power and somehow reduce status and *raison d’être*. Thus, change is by no means an easy task – and other authors argue that change initiatives are likely to fail, if a sufficient momentum for change does not exist (de Waal et al. 2011).

Furthermore, new streams of research with the objective of extending the view of evolutionary MAC have emerged, which sought to reach outside the limitations of the early research stream of MAC. Although the original process of institutionalization is well accepted, general refinements and factors underlying the evolutionary MAC process have been investigated in more detail (Quinn 2014). Coad and Cullen (2006) are two of the critics to the predominated view of evolutionary MAC as described above and highlight that “*it should not be assumed that these theories form a uniform or entirely consistent view of organizations*” (p. 344), since the theories are still evolving themselves and no consensus regarding key terms and concepts has yet been established. Their research suggests that heuristics are part of the search routines which result in unpredictability related to modifications to activities, costs and organizational boundaries. Some theorists (van der Steen 2011) argue that the notion of management accounting routines have only been scratched on the surface and, thus, suffer from ambiguity in existing research. Their research, based on a case study on a bank which experienced evolutionary MAC, suggests new explanations for change of routines and more complex dynamics related to them as opposed to assuming them being static and stable and their ongoing reproduction embodying potential for variation.

In addition, de Waal et al. (2011) presents a model they refer to as the evolutionary adoption framework, linking together different reasons for members of an organization to start using an adjusted management accounting practice. The researchers found a budgeting paradox in the adaption rate of adjusted practices in relationship to the level of criticism of traditional

budgeting and concluded that momentum for change is of the uttermost importance before MAC can happen. When the budget process is perceived as satisfactory efficient, no changes in the management accounting practice will be considered since organizations do not continuously seek the optimal alternative to their budget process. In practice, de Waal et al. (2011) claim that most organizations do not change their budget processes in a radical manner, since the adoption and acceptance of management accounting practices is often an evolutionary change process. In order to achieve and stimulate change in the budget process – as it may be difficult for organizational members to understand the value – the authors claim that new budget processes should initially be implemented in smaller pieces or in limited parts of organizations so that people get acquainted to the new process. This way, legitimization and proof of efficiency can be achieved.

Arguably, the full potential of evolutionary MAC theory has still not been discovered and there is a belief that the evolutionary MAC approach has potential to be improved and extended beyond describing gradual, often perceived as slow and small, longer-time changes. Johansson and Siverbo (2009) propose to take the next step – a developed and more specified evolutionary perspective, which includes a theory that interconnects all the micro, time and context specific results at a higher level. The evolutionary perspective of Johansson and Siverbo (2009) takes its starting point in existing MAC literature and aims to offer an alternative and integrated view of the evolutionary change process, and is in line with other researchers that evolutionary theory has been too narrowly defined and simplified in earlier studies. They argue that the definition of evolutionary change implies more than describing the MAC process as incremental and, consequently, suggest going beyond the traditional definition of evolutionary MAC with an explanatory model of management accounting evolution consisting of three sub processes: *retention*, *variation* and *selection*.

In the sub process of *retention*, routines are enacted and replicated as a function of the interplay between existing routines, management accounting rules and behavior. Existing routines are explained as unobservable, assigned to the cultural realm and could also be divided into both cognitive and normative routines. They are also subject of influence from social interactions within an organization, for example power relations and divergent interests. Rules and behavior on the other hand are observable and defined as artefacts, exposed to selection. The second process *variation* is suggested to affect the artefacts – the behavior (which may initiate a routinization process), the rules or both – by factors of either exogenous or endogenous origin.

The exogenous origin represents external pressures on organizations and macro-institutions of accounting practices being translated into the organizational context and adopted, while examples on endogenous origins are existing processes, such as search routines steering innovation. This can be a result of dynamic capabilities or even indirectly driven through influences from new members of the organization with different behaviors. Variation can also be derived from routine contradictions and may be source of disputes about, for example, management accounting if they coincide with power struggles and conflicts of interest. In effect, the pattern of continuity can be broken both by direct variation, indirect variation and chance, the presence of the latter alternative indicating that evolution of management accounting is not predictable. Last is the process of *selection*, which can happen both internally and externally and could be divided into two steps. The first is when variation is being subject to the internal artificial or institutional selection which, by dominant actors such as the leadership, determines whether the management accounting rules and behavior are acceptable or not. In the second step the rules and behavior are exposed to external market or institutional selection. All things considered, the selection process aims to gain institutional legitimacy and overcome inefficiencies by rational choice.

Scapens and Burns (2000) were pioneers of the process perspective of MAC and to use their own linguistics one could say their well-known framework was revolutionary and has served the evolution MAC research well as it is still what many authors refer to in modern research. However, treating evolutionary and revolutionary change as something black and white, or the relationship between them as binary, has been questioned and, hence, theorists have brought up new perspectives to the MAC process literature indicating that evolutionary change might be a grey area rather than a black box. Therefore, this paper aims to investigate whether the pattern of an evolutionary MAC process can appear different than suggested by the existing, somewhat narrowed, definitions and hence to answer the following research question:

1.) How can the definition of evolutionary MAC be extended?

2.1.3 Additional Dimensions of Management Accounting Change

Johansson and Siverbo (2009) briefly mention the existence of informal management accounting change (MAC), but they do not pay particular attention on how this informal MAC has to be incorporated into the evolutionary MAC theory. Other authors such as Burns and Vaivio (2001) have in contrast placed emphasis on supplementary dimensions of MAC

including informal and indirect MAC. One conceptual area within MAC identified by them is referred to as the *logic of change* and highlights that change can be both a function of a managed and formal organizational activity and of an unmanaged process or event including informal components. This implies that MAC is as likely to follow a functional logic, with the purpose of providing some economic value to the company. In addition, political activity during the MAC process is seldom a neutral activity but more often associated with contrasting alliances being formed. This in line with the findings of Burns and Scapens (2000), who emphasize that when studying MAC it is essential to take the informal processes and indirect changes into account. The distinction between formal and informal MAC depends on whether it is derived from a tactic, subconscious level or from the introduction of new rules. The latter is more observable, although both are of equal importance to understand change in management account systems.

Burns and Vaivio (2001) further discuss the area of *management of change* which addresses that MAC can be driven both top-down in a centralistic fashion or as a profoundly decentralized and local concern. This is often the case when MAC is initiated due to local needs and without top management's involvement, thus often not deliberately planned. These decentralized accounting initiatives can result in company-wide changes using a more bottom-up approach as local experimentation influences other parts of the organization resulting in an *emergent organizational phenomenon* (Burns and Vaivio 2001). The introduction of flexible budgeting with less formal control mechanism can be emphasized in these situations. Moreover, top-down MAC will instantly impact formal rules but just indirectly impact informal processes such as routines, while bottom-up change will impact both formal and informal processes (Burns and Scapens 2000). Yet, there is surprisingly little research on informal and indirect MAC and we hence also want to contribute to these additional dimensions on MAC by answering the following research question:

2.) How can the knowledge of formal vs. informal MAC be expanded?

2.2 Method Theory

2.2.1 Pilots as an Emergent Change Phenomenon

One relatively new way of driving change deployed by multinational companies is the use of pilot projects, which address only a limited part of the organization such as a single region or business unit (Davidson and Büchel 2011). In case pilots show the expected value of change

on a smaller scale, projects become scaled up to release their full economic potential by being introduced to a larger part of the organization, being referred to as the ripple-effect (Billé 2010). Pilot projects are thus a change engine created as a temporary organization to which resources can quite flexibly be assigned (Turner 2005), enabling pilots to circumvent traditional structures and systems due to their nature of requiring merely moderate investments and consequential less political decision making.

While Huguenin and Jeannerat (2017) claim that pilot projects are often used to test a *“product’s technological, financial and commercial feasibility”* (p. 629), a recent stream of research has acknowledged the potential of pilots going beyond a pure tool for testing purposes. Kempster et al. (2014) claim that the use of pilots is not limited to testing a new technology but rather that pilots can be used to drive organizational change and accordingly view the benefit of pilots in their use *“to facilitate sociological and psychological processes of change through the act of designing, experimenting and implementing localized structural or operational changes”* (p. 154). Turner (2005) highlights the use of pilots in enabling strategic change, but criticizes a lack of research interest on this matter: *“Pilot studies are an item so important in the implementation of strategic change in organizations, to ensure that the correct change is implemented, and implemented properly, and yet they appear to be written about nowhere”* (Turner 2005, p. 1). This is interesting, since recent literature within change management has acknowledged the potential of pilots as a facilitator of change, however, to date, peer-reviewed literature has not yet provided a holistic perspective on the nature of pilots in driving change (Kempster et al. 2014). Most research has only touched upon limited key aspects of pilots and hence there is no integrated overall framework on the key dimensions of pilots. We synthesize existing research and claim that pilots contain three main aspects in driving change: They contain the ability to (1) function as an initial change trigger, (2) generate ongoing momentum and (3) deliver quick results. We refer to these three distinct characteristics as *“the three dynamics of pilots in facilitating organizational change”* and will elaborate on them in the following section.

2.2.2 The Three Dynamics of Pilots in Facilitating Organizational Change

Pilots Can Trigger Change Through Deinstitutionalization

While Davidson and Büchel (2011) claim that pilots should not be applied to units which are *“atypical on key dimensions such as organizational structure or systems”* (p. 82), Billé (2010) argues that pilots are temporary change interventions, which may help to invalidate prevailing

structures as a consequence of decoupling temporary behavior from prescribed formal behavior. This concept of deinstitutionalization is not explicitly referred to in the pilot literature, but the inherent logic is prevalent in several arguments from pilot researchers. Kempster et al. (2014) for instance highlight the usefulness of pilots as a trigger for strategic change programmes. Boscherini et al. (2010) refer to this decoupling mechanism as the unfreezing stage in accordance with Lewin (1947). They claim that pilots are operating in a test environment, are hence ‘unchained’ from institutionalized structures and can thus trigger alternative routines and behavior at a bigger scale. To complement, Huguenin and Jeannerat (2017) see the potential of pilots in triggering a reorientation of “*policy agendas through the practice of reflective governance*” (p. 629). They argue that by involving a broad range of actors into political discussions, pilots can trigger debates about new structures and mobilize vested interests. Through these discussions, pilots can lead to a fundamental rethinking by triggering controversies, since they deliver concrete deviations from prescribed norms, which can be problematized, debated and recognized. Billé (2010) adds to this political dimension, since he argues that pilots have a strong power in triggering a rethinking process of decision makers. He claims that the uniqueness of pilots lies within their nature of not causing active resistance to change as pilots aim for outcomes at a smaller scale with consensual participation of powerful organizational actors. These actors are willing to accept pilots, if they see themselves in control for the process change at a larger scale. However, while pilots may not directly impact processes substantially at first, they can trigger changes at a larger scale at a later point in time. These triggers are however meaningless, if the initially created momentum cannot be maintained.

Pilots Can Accelerate Change Through Generating Momentum

Most research within change management views the main feature of pilots in creating and maintaining momentum for change (e.g. Balogun and Hope Hailey 2008, Kanter et al. 1992, Higgs and Rowland 2005 cited by Kempster et al. 2014). Kempster et al. (2014) for example argue that pilots can be “*the change management panacea*” as they unite “*the benefits of planning, with strong clear top-down leadership, responsive to political interests that drawing on broad constituencies of support throughout the organization, alongside the engagement of local participation in design, testing and implementation*” (p. 158). Drawing on the underlying substance of change dynamics, they claim that pilots can enhance the success rates of change initiatives by generating constant momentum for change through the mechanism of distributed change leadership. This might, however, only be feasible if a sequencing of pilots occurs, a process that facilitates testing, learning and involvement within and from various organizational

units. Testing allows for decentralized adaption, learning enables knowledge-sharing through the incorporation of emerging ideas from different contexts and involvement from different organizational units by participation in the process reduces resistance through shared ownership. By the involvement and participation from a broad range of organizational actors, momentum can thus not only be created but maintained (Kempster et al. 2014). Boscherini et al. (2010) claim that pilots can maintain a sense of urgency for change by guiding and communicating the reasons and objectives of the project. This helps to keep alive the momentum that had been triggered before in the conception of the pilot project. Turner (2005) focuses on pilots as a risk reduction mechanism. By providing concrete information about a project through testing, pilots reduce uncertainty which preserves the initially triggered momentum. He further argues that momentum for the respective change initiative is created by convincing funding authorities about the applicability and potential of the larger change set-up. However, to keep up this momentum, pilots have to show concrete and quick results as projects are often managed along short-term horizons.

Pilots Can Direct Change Through Delivering Quick Results

Matta and Ashkenas (2003) describe pilots as ‘rapid-results initiatives’ and view the main feature of them in their strong focus on delivering quick results. These miniprojects become replicated to drive organization-wide change. The authors further argue that quick results through pilots increase flexibility in the planning process as testing smaller sub pieces of the overall plan enables adjustments along the way and pilots moreover energize and motivate teams as they feel that they deliver actionable and real benefits. However, Matta and Ashkenas (2003) also add that this does not imply that pilots are merely short-term solutions. Rather the more important value of delivering quick results through pilots lies in the inherent long-term change consequences. Davidson and Büchel (2011) are quite aligned with the formerly described view that the multiplicity and replicability of pilots enables a quick reproduction of results across the organization. They argue that multiple pilots create stronger commitment and involvement across the organization and that replicability allows for locally adaptable solutions, leading to lower resistance of dispersed units in the implementation process accelerating the execution time of the change process. By decentralizing the accountability of larger projects into smaller pilots, leadership distributes power and control to their front-line units. In addition, Kempster et al. (2014) argue that pilots have to be part of a bigger overall strategy to successfully implement quick results, as they highlight the importance of a formalized strategic and top-down approach on change to align a change program with its organizational targets.

They further argue that pilots can guide and structure strategically driven top-down changes until the realization of project results. Moreover, the authors find that pilots can quickly manage and align the unavoidable contrasting political views defined as politically governed change management. Kempster et al. (2014) argue that a pilot approach can help to blend rational planning with political processes and build pockets of commitment due to pilots' testing nature, which can help to balance the competing logics in organizational praxis and hence suggest that a legitimized pilot approach can facilitate collective sense making. This pilot approach on change is argued to be likely more successful than a strictly top-down approach on change, since operational improvements are immediately entrenched in the day-to-day operations and can spread through different parts of an organization.

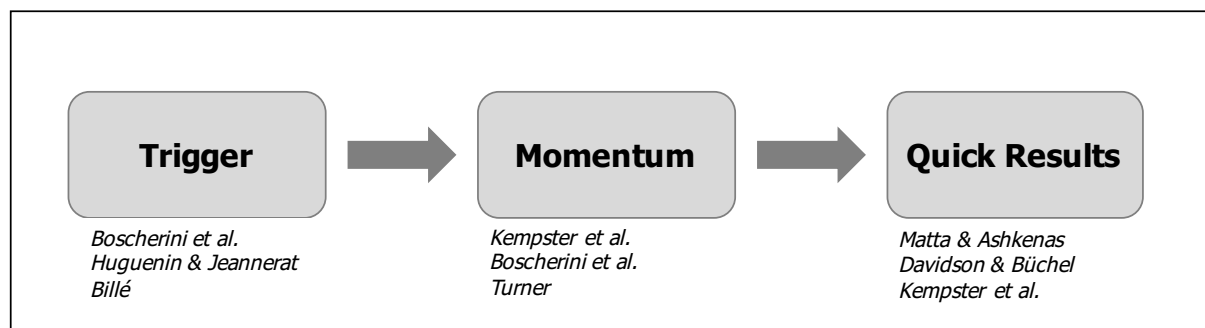


Figure 2: The Three Dynamics of Pilots in Facilitating Organizational Change

2.3 Theoretical Framework

As problematized in 2.1 there appears to be a dissatisfaction with the traditional dichotomic definition of the management accounting change (MAC) process being defined as either evolutionary or revolutionary. The emergent research stream has claimed that the full potential of evolutionary MAC has not yet been uncovered and consequently calls for further research on evolutionary MAC. Arguably research on MAC has started to move from seeing revolutionary and evolutionary MAC as a dichotomy towards seeing it as a spectrum of different forms of MAC, yet there is a lack of conceptualized patterns exemplifying and justifying a broader definition of the evolutionary MAC process. Another criticism on the early research stream is that MAC studies guided by institutional theory pay too much attention on the retention process of MAC often empirically visible as a resistance to change. We hence deem it useful to adopt the breakdown of the evolutionary MAC process as suggested by Johansson and Siverbo's (2009) model of 'Management accounting evolution' in order to provide a more granular perspective of MAC and to achieve a more in-depth understanding by

analyzing the sub processes of *retention*, *variation* and *selection* independently. The composition of these sub processes determines whether change occurs slow and incremental or rapid and radical. By understanding the retention, variation and selection processes of MAC, one can expect to gain a better understanding of the overall process on MAC.

Our theoretical angle in investigating MAC is unique, since no research to date has applied pilot theory to MAC. This is not surprising as some researchers (e.g. Van Teijlingen and Hundley 2002) have argued that the outcomes produced by pilots have no academic validity due to their testing nature. However, with MAC seen as a process instead of an outcome in recent research, pilots can be viewed worthwhile to investigate the MAC process and we – also from this perspective – deem the sub process breakdown by Johansson and Siverbo (2009) as particularly useful. Pilots being a nascent theoretical concept of change applied by many companies in practice, we expect to gain new insights into the three sub processes by analyzing them through the pilot lens. To build a solid analytic framework, we have synthesized the scattered literature on pilots in the former section and claim that pilots contain three distinct key factors in driving change: Trigger, Momentum and Quick Results. These three dynamics of pilots in facilitating organizational change will be used to analyze the sub processes of MAC. We believe that the integration of MAC and pilot literature will yield valuable results mainly due to three reasons. First, pilots can function as change triggers by decoupling temporary behavior from prescribed formal behavior (e.g. Billé 2010) and hence may be able to invalidate management accounting structures. Second, literature on MAC has identified momentum as a key pre-requisite for success (de Waal et al. 2011) while pilot literature has likewise identified creating momentum as a key output variable of pilots, making the concept of momentum as a distinct bridge between MAC and pilot literature. Last, pilots are able to generate quick results, a quality, which is more than ever important for MAC in times of fast-moving environments requiring a quick and flexible adaption of management accounting systems.

Hereinafter, we display an overview of this thesis' theoretical framework structured along the key dynamics of pilots mapped to the three sub processes of evolutionary MAC. We believe that our framework will be of particular help to answer our research questions as we investigate technical pilots empirically, but want to analyze the inherent substance of these pilots both from a formal and informal perspective through a more theoretical lens, since pilot literature has acknowledged that the use of pilots goes beyond a pure implementation tool. The below

framework will further serve as the main guiding tool when presenting and analyzing the findings of our study in section 4.2.

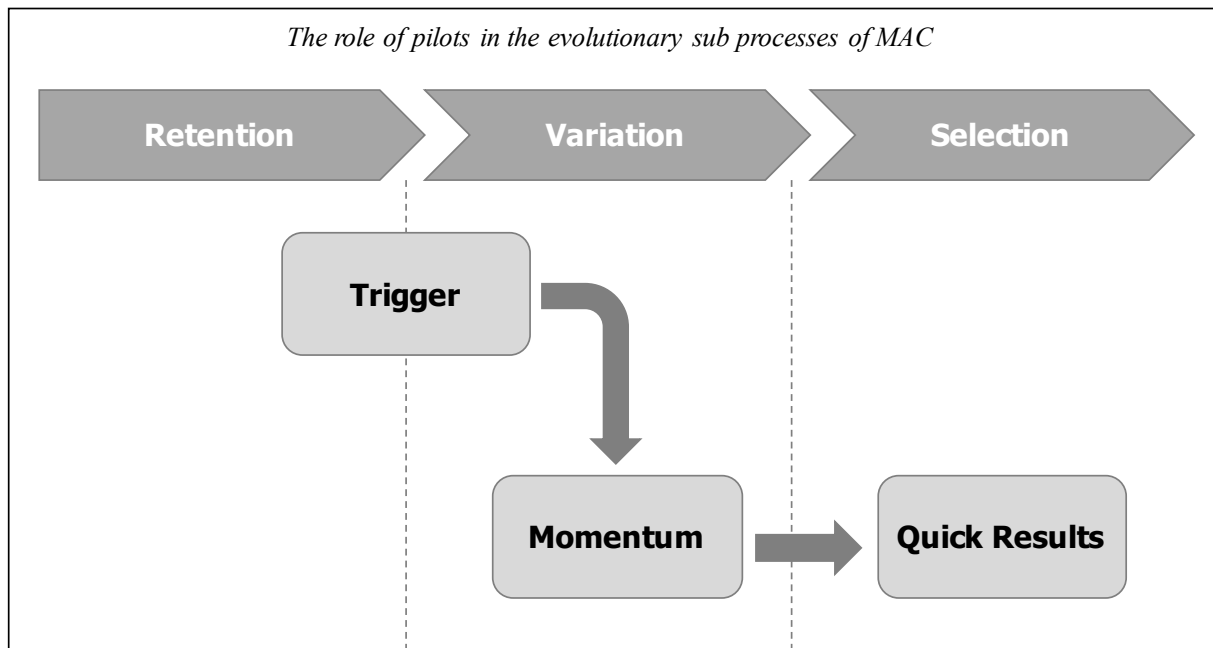


Figure 3: Theoretical Framework: The role of pilots in the evolutionary sub processes of MAC

3. Method

This section presents research methods selected for our study. 3.1 elaborates on the research design of this paper, 3.2 describes our data collection process, 3.3 displays the analytical process and 3.4 explains reliability and validity of our study.

3.1 Research Design

3.1.1 Empirical Method

The empirical method chosen for this thesis is a qualitative single in-depth case study. This study will focus less on statistical relationships between variables and modelling, which are characteristics of quantitative research, and more on broader context and interpretations through, for example, interviewing people about their own experiences (Holme and Solvang 1997). The benefits are that the case study will explore complexity of organizational dynamics and different perspectives to it as well as to factors affecting it (Merriam 1994). Maxwell (2012) argues that a qualitative method *“tends to see the world in terms of people, situations, events and the processes that connect these; explanation is based on an analysis of how some situations and events influence others”* (p. 29).

One of our objectives for this case study is to get a firm understanding – beyond the formalized management accounting systems and decision making processes – of why it is hard to change a management accounting system in a big multinational company despite many people advocating for a need of MAC. To investigate this issue, we need to understand all the different mechanisms affecting this, since an organization is very complex by nature. These mechanisms can be both formal and informal and cannot most often be deeply understood by regular regression models but rather through talking and observing. Eisenhardt (1989) claims that including observations, documents and interviews improves the ability to get an understanding for the dynamics of the particular case’s setting. Using another perspective, a qualitative method is also preferable to enable methodological fit for our research topic, which has yet not been extensively discovered and is considered to be in the nascent area (Edmondson and McManus 2007).

The choice of a single case study over a multiple case study was mostly made because this study seeks to deeply understand our topic rather than broadly (Dyer and Wilkins 1991). Moreover, Dyer and Wilkins (1991) claim that a single study allows the case study to include

the rich context and true depth of the case which we believe is essential in order to being able to answering our research questions and to contribute to the existing research field of evolutionary MAC, especially given the short time period at hand. However, with a longer time frame we do not dismiss the idea that a multiple case study could add value to our research but the risk for this thesis would be to generate more breadth and less depth (Ahrens and Dent 1998), which would result in less good data and, thus, understanding for our case. Eisenhardt and Graebner (2007) favors the single case study, since they argue that it helps to explore all existing relationships rather than limiting to exploring relationships across the cases, which could be the result of a multiple case study.

3.1.2 Selection of Case Company

“Theoretical sampling of single cases is straight forward. They are chosen because they are unusually revelatory, extreme exemplars, or opportunities for unusual research access” (Eisenhardt and Graebner 2007, p. 27). We used a pragmatic approach when selecting our case company and chose one with interesting attributes and where we had an existing relationship, which could yield good overall access. This way of arguing is in line with Maxwell (2012), who claims that when selecting your case organization, the feasibility of access and data collection should be considered. A case company does not have to be representative of any particular population (Eisenhardt and Graebner 2007) as is often the case in quantitative studies and Scapens (1990) further claims what is more important is that the case has a good foundation for theory development. The attributes we found interesting were that GlobaTech is a big multinational company competing in the technology industry, an industry which is currently under big pressure as it moves very fast and currently experiences hard competition on an international level. In addition to that, restructurings and reorganizations have been present at our case company and a lot of change initiatives have been ongoing, which give rise to interesting dynamics and objects to study. We believe that this organizational complexity and external pressure may result in new ways of driving MAC as traditional change patterns might not be sufficient enough in this demanding environment. One other aspect is that GlobaTech has its headquarters in Stockholm, facilitating physical interviews which are considered more valuable than non-physical since they allow for more observations in conjunction with the interview, interpretations and opportunity to create a personal relationship to the interview subjects, which could potentially create trust and make them more willing to open up.

In addition to good access and the opportunity of getting a fast start, the company sponsors of the thesis showed big interest and enthusiasm which are good indicators for the help needed to conducting a sound study, since it otherwise can be hard to overcome resistance to transparency. This way of reasoning is in line with what Maxwell (2012) refers to as purposeful selection. However, this has also raised awareness that we critically have to evaluate the selection of information provided to us to assure a fair and sound representation and to not fall into any biases, and in accordance to the propositions for data collection provided by, for example, Maxwell (2012) and Dubois and Gadde (2002) multiple data sources should be used in order to obtain an objective view and greater depth.

One relevant aspect to bring up is one of the author's connection to the case company as he completed an internship program with GlobaTech for four months which could be considered a risk. However, the second author had no previous experiences with the case company and remained a critical mind about the results at all time. Hence, we do not believe it will have any negative effects or biases, on the contrary this has been perceived positive as it has helped us to gain good access through the existing relationships with company members. Furthermore, to ensure transparency and reduce the anxiousness of sensitive information to be shared with external stakeholders, both authors have signed a non-disclosure agreement with the promise of not disclosing any specific company information and we have, in addition, chosen to anonymize the company to the fictitious name GlobaTech.

3.1.3 Research Approach

As mentioned in the previous section, the case company GlobaTech was selected at a very early point. A kick-off meeting was scheduled with the company sponsors, where an open discussion was conducted already during January. The company representatives were asked to elaborate on the implementation of their new PAT technology and from there emerged the idea of investigating the influence of management accounting systems on projects that had a considerably shorter implementation process than what is traditionally known, GlobaTech being a somewhat conservative company and not used to this. One considered risk was that the PAT initiative is an operational change program which could potentially cause confusion when discussing the MAC aspect of it, however, being aware of this from the start made us emphasize the distinction between organizational change and MAC throughout the study. For the purpose of making the study relevant an abductive approach was selected, using the systematic combining method described by Dubois and Gadde (2002). The process suggested by them is

to work with theoretical framework, empirics and analysis simultaneously and continuously move between the different parameters. This is also confirmed by Edmondson and McManus (2007), since our research field is nascent by claiming that the data analyses and data collection should alternate and act as an iterative process where working hypotheses are continuously generated and updated. The method has been particularly helpful to us since research concerning linkages and dynamics between fast technology implementation and the adaption of traditional budget systems has been limited.

We found that the existing budget system did not fit for initiatives with the characteristics of PAT and that the change process of those according to literature had to happen either revolutionary or, more often, evolutionary. Management accounting changes in general, and budget system changes particularly, are by nature very different from other ‘regular’ organizational changes, as they are more tightly linked to the entire operating model of a company and affect both planning and evaluation of financial performance, in addition to being used for political purposes. Our case study will focus on the budget changes when investigating the MAC instead of looking at various management accounting practices. The choice was derived from a practical problem the company had when they wanted to conduct their new digital initiatives. We had the choice of two practical problems related to management accounting, either investigating budgetary or performance management related issues and we decided to choose budgetary change due to its complex nature, since complex change dilemmas require creative, or at least, new ways of driving change (Hensmans 2015). As we believe that budget change is representable for MAC, we used theories on MAC in parallel to learning more about the context of the case through an iterative process.

Officially, pilots concerned the implementation of the PAT initiative. As indicated above, however, we found out that the pilots are also indirectly linked to the management accounting system since the budget and the operating model were so tightly interlinked. This is also in line with research that the effect of pilots goes beyond the formal objective of the same: *“It may be that rather than formal pilots an informal or even metaphoric pilot process occurred. Researching the nature of pilots – formal and informal – may reveal that much change management practice activity does occur through pilots”* (Kempster et al. 2014, p. 163). We were aware about this fact from an early point, but it was not something we could discuss very openly about with all interview subjects, since many could see the MAC happening but not as a direct effect of PAT pilots. This being a very sensitive and political issue, it was difficult to

gather a lot of data to support our hypothesis through interviews. Consequently, to gather data, we had to ask questions for the PAT initiative and the budget system separately during the interviews and then connect the data points.

To get a better understanding of the theoretical field, a literature review was created to shape a good foundation for the empirical fieldwork and analysis, and as our understanding improved and the working hypotheses were updated, both the theoretical framework was developed and refinements of the interview guides were made to extract more relevant data. The continuous calibration and iteration has increased the value of the study since unexpected findings have been able to not only be included when emerged, but also more dynamically used. The process used has also ensured matching of the theoretical and empirical parts which is the, by Dubois and Gadde (2002), claimed value of systematic combining.

3.2 Data Collection

3.2.1 Primary Data

Primary data has been collected through semi-structured interviews with a broad mix of current and former employees of the case company. In a period of four months (February to May 2017), 18 interviews have been conducted whereof each lasted for 45-90 minutes. The interviews have been conducted during physical meetings with exception of the 5 interview subjects based in the United States, India and with one of the former employees. The former employee was interviewed over phone and the others through the GlobaTech's conference call system.

Using the single case study approach, we were seeking in-depth descriptions and reflections from the interview subjects as the results from them are the foundation of our analysis. Bryman and Bell (2007) suggest that qualitative interviews are good in order to make an intensive and detailed assessment of a case and, thus, this has been deemed to be the best choice for us given the objective of the case study. More specifically, as mentioned, the qualitative interviews have been semi-structured. One reason is that it reduces the risk of divergent interview styles (Bryman and Bell 2007) as we have been two people conducting the interviews. Second, semi-structured interviews help ensure the comparability of data and usefulness when discussing differences between people and settings (Maxwell 2012) at the same time as the free element allows for exploration of, for example, understudied and unexpected phenomenon. Hence, the interviews both helped us answer predetermined questions to confirm or disconfirm our

working hypotheses and, at the same time, be open and responsive to new information which could be elaborated on through, for example, follow-up questions (Merriam 1994). The latter example has been especially useful in the finding of and when deeper investigating the Trojan horse mechanism.

Questions were formulated in an interview guide as suggested by Bryman and Bell (2007) and similar questions were in some cases asked to secure validity. The interview guides were customized to the particular function and expertise of the interview subject to secure inclusion of interesting perspectives. To facilitate the analysis and secure good data management, every interview was followed up and discussed at least twice, both in direct conjunction with the interview and after listening to the recording of the interview. This also gave opportunity to update and calibrate the interview question for the succeeding interviews in order to extract more in-depth information from them, which is also suggested by Morgan and Smircich (1980) and their subjectivist approach, in addition to the concept of an interactive design process as suggested by Maxwell (2012). The continuous calibration of interviews helped ensure the progress towards an objective truth and lessen the need of bold interpretations and triangulations when unnecessary, although some questions could not be asked directly but rather indirectly due to political sensitivity. Elements of calibration and iteration were also important using the concept of systematic combining (Dubois and Gadde 2002) as it gave time for reflection on the status of matching between the theory, framework, empirics and case. More concretely, we envisioned it as a learning cycle where the nature of the interviews changed along the way – during the initial interviews, we focused on a more general understanding to include every aspect of the change initiative to make sure we did not miss out on any valuable information. As we became more educated and advanced in the learning cycle, the questions were shifted towards more targeted and detailed ones about specific information, which at an earlier point could not have been extracted due to lack of deeper understanding. When asking indirect questions, they were often formulated in a way that would reveal our intention, due to their politically sensitive nature, but still gave direction in order for us to extract relevant data.

In order to increase the willingness for the interview subjects to share information with us as an external party, we had to create trust and reduce any discomfort there could be. We created trust by an informal talk before the interview started, discussing our background (for example that one of us had previously interned within GlobaTech) and emphasizing that both had signed non-disclosure agreements and, in addition, that the study is endorsed by influential company

representatives as our official sponsor stems from the senior leadership team. Reduction of discomfort was obtained by explaining that both the case company and the interview subjects themselves would be anonymized in the final paper, in addition to ensuring them that they would be given the opportunity to approve their ‘epithet titles’ and direct quotes used. All interview subjects had to approve their interview to be recorded. The recordings were all listened through at least twice by both of the authors and important parts and useful quotes were transcribed and compared and discussed between the two of us. We chose not to focus on transcribing the entire recordings word-by-word but rather important parts for the findings section, quotes and interpretations as it enhanced our analytical process and allowed the material to be of more dynamic use – Bryman and Bell (2007) describe this as “*Qualitative researchers are frequently interested not just in what people say but also in the way that they say it*” (p. 489). With this said, recording and transcribing are important elements to the interviewing process as it ensures that the data collected can be used in a valuable way (Merriam 1994).

Selection of interview candidates has been made using three methods: using the authors’ knowledge of the company, recommendations from the company sponsors and recommendation from the interview subjects which at the end of the interviews were asked who they thought we should talk to. Important to mention is that the suggested names we received from company representatives were evaluated by us independently before selected as interview subject or not. All in all, our selection process has followed the concept of purposeful selection suggested by Maxwell (2012) and defined as a strategy where “*persons [...] are selected deliberately to provide information that is particular relevant to your questions and goals*” (p. 97). The objective was to get a holistic view of the case, although from company members with relevant roles and experience, which is why we invited representatives from different individual units, regions and cross-functional teams with many different perspectives, in addition to different levels of seniority. The purpose was to get both a good vertical and lateral coverage in the composition of the interview subjects. Due to the currently very political environment at GlobaTech we, however, had to anonymize the titles and hierarchal levels of the participating respondents as far as possible. Despite this anonymization, a few interviewees including three people from the Finance function and one Former Change Manager requested not to be quoted directly, so that in these cases we had to use the collected data in an indirect way. Having had sponsors for the thesis at the company has, despite the described tensions in the company, simplified to gain easier access as they have helped with the initial contact internally. It has

been of big importance in legitimizing our study since organizations often are political and managers can be reluctant to grant interviews or access to other data (Meyer 2001). We also chose to contact and interview two former employees of GlobaTech, both former change managers, and one former change manager who had switched jobs internally, who could add valuable insights related to historical factors and provide high expertise with a some-what more distanced and nuanced perspective, since they left their position approximately one year ago.

3.2.2 Secondary Data

Relevant internal documentation and material have been collected and used as secondary data. The importance of different sources of data and methods of data collection is emphasized by Yin (2013) as it allows the authors to, for example, broaden the range of historical issues. It also facilitates the double-check of findings: *“Combining sources of evidence, while shifting between analysis and interpretation, usually denotes triangulation, [...] the main advantage of triangulation is the development of converging lines of inquiry”* (Dubois and Gadde 2002, p. 556). Internal documents, e-mail correspondences and other material were shared with us and used as background and preparation for interviews, as well as a source for improved knowledge about GlobaTech’s current management accounting practices. The mentioned material included reflections and analyses made of the practices by the company, in addition to former suggested change initiatives to the management accounting systems. For example, these were essential in understanding factors laying ground for the Trojan horse mechanism and the underlying reason to the current state of the management accounting practices.

3.3 Data Analysis

As mentioned in the previous section, all interviews were followed up and discussed in direct conjunction with the interview event, as suggested by Eisenhardt (1989). The discussions, which involved both discussing findings from the interview and new ideas, were used to write memos so no data or thoughts would get lost and to discuss the study going forward as part of the systematic combining approach. The concept of continuously documenting thoughts, or reflective writing as a tool of thinking as suggested by Maxwell (2012), has been a good supplement to interview transcripts as it has allowed us to develop tentative ideas about categories and relationships. In accordance with Maxwell’s (2012) methodology, we have listened to the interview tapes before transcribing and chosen to only transcribe the parts deemed of value for the empirical part and our analysis. We went through this part of the process

separately and compared the similarities and differences of our notes afterwards, using this as an opportunity to discuss findings and work on our arguments between the two of us. Working this way, sound arguments can be developed already at an early stage during the process since they are tested and challenge by the other thesis partner which is well informed. In line with Maxwell (2012), the data was structured into categories to make sure not to be confused when working with, for example, our theoretical framework. Initially, we used the three clusters Management Accounting Change, Management Accounting and Organizational Change, since we realized there could be a risk of mixing different types of data together otherwise – which potentially could have resulted in a weaker analysis and empirically non-supported claims. Structuring data into substantive categories – *“description of participants’ concepts and beliefs”*– and theoretical categories – *“placing the coded into a more general or abstract framework”* (Maxwell 2012, p. 108) – was of benefit to our abductive approach and the use of systematic combining (Dubois and Gadde 2002) as described in previous section. After this first clustering exercise, we structured the data among our pre-developed theoretical framework as presented in section 2.3.

The data analysis was made in parallel to the data collection and we thus had a very pragmatic mindset in the beginning of the process as we wanted to match, through direction and redirection, empirical findings and potential theories within the field of MAC. To add structure to the process, in addition to the memos, data was collected in excel sheets, which both visually and practically eased matching existing empirical findings and emergent theory. When having decided on the MAC as research topic, the same tool helped us narrowing it down to the evolutionary theory and, at the same time, develop and refine the interview and observation guides. As this study belongs to the nascent area, it is suggested to work with a clear and persuasive story with strong evidence (Edmondson and McManus 2007) and working according to the aforementioned structure has made us to process the data and cut it into smaller building blocks, which later have been used to iteratively build up a story.

3.4 Research Quality

3.4.1 Validity

One natural objective of this case study is to describe and correspond to reality. Through the work of Maxwell (2012) we have identified two major validity risks that we have attempted to mitigate throughout the work process of this thesis, one risk being that interview subjects do

not present their actual views and the second researcher bias, for example that we ignore data that do not fit our interpretations or there being different theoretical ways of making sense of our data. Maxwell (2012) argues that it is not possible “*to eliminate such threats through prior features of the research design*” but “*address the particular validity threats after a tentative account has been developed*” or “*after the research has begun*” (p. 123). We have in a systematic manner worked on avoiding these threats by continuously conducting objectivity checks and bias checks. To ensure that a truthful picture has been shared with us by the interview subjects, we have asked similar questions in the different interviews conducted. For example, questions related to findings unheard of before were added to the interview guide for relevant upcoming interviews, and transcribing important content from the interviews also allowed us to cross-check the information with what others had said. We also asked for approval of quotes and since the interview subjects knew that the thesis would be published and read by internal stakeholders it was also in their interest to make the quotes representable of the reality.

The second risk related to research bias is of importance to stress in order not to dismiss competing explanations and discrepant data (Maxwell 2012). The risk was mitigated through bias checks, which mainly included four elements. One was to, between the authors, discuss the outcome of each interview directly after it had been conducted where we addressed how the data was in line or in conflict with first previously collected data and second our current working hypotheses. The second element was to continuously test explanations and data through alternative conclusions, which also was of value for the iteration process. Third, we introduced *devil’s advocate sessions* to the agenda for our meetings – the objective was to take turns to play the devil’s advocate as we found it being a good way of challenging our interpretations and emergent arguments, and doing this in a more formalized setting was considered good to oblige us assessing potential biases on a regular basis. Last, we joined forces with two other research teams and invited them to read extracts of our material after which we met for a discussion, where they acted as a sounding board and shared their opinions. In addition to the aforementioned, to ensure validity and not only search for desired answers, the interview guides were designed in a way so that the initial questions asked were always broad and open, in order not to steer the answers into any direction and, thus, avoid confirmatory bias.

3.4.2 Reliability

“The extent to which results are consistent over time and an accurate representation of the total population under study is referred to as reliability and if the results of a study can be

reproduced under a similar methodology, then the research instrument is considered to be reliable” (Golafshani 2003, p. 598). The essence of this quote is the notion of replicability or repeatability of observations and results (Bryman and Bell 2007, Merriam 1994). In a quantitative study this can relatively easy be done by running the same numbers again, while it might be conceived a bit less straight-forward within the scope of a quantitative study as it is somewhat interlinked to the discussion about objectivity. To ensure reliability we have focused on two factors, data source and data management.

The first factor relates to the potential event of other researchers conducting the same case study. The data source factor, simplified, implies that extraneous influences to the interview subjects could result in differences of responses provided and, thus, deviations in the collected data set. Examples of extraneous influences are attitude or behavioral changes and changes in mood (e.g. Golafshani 2003, Merriam 1994). This has been managed through us sending all the quotes to the interviewees for approval a couple of weeks after the interviews, and through the interview guide design, interview subject composition and overall data collection process where we, for example, have cross-checked the findings we use. Hence, we believe it is probable that the study results would be reproduced under a similar methodology.

The data management factor comprises how data has been processed by the authors and stored, and relates to repeatability of study if already gathered data was to be reused. Here, we wish to refer to our discussion above about ensuring objectivity which is essential to obtain repeatability. All the data, both raw data and processed data, and working documents, including notes and excel sheets, have been carefully saved and stored on a shared server to be accessible at all times.

4. Empirics

This section displays the empirical findings of our study that focus on the role of pilots in the sub processes of management accounting change. In section 4.1 we will provide the context on our case company and the PAT initiative. Section 4.2 then presents our findings structured along our developed theoretical framework. Section 4.3 provides a comprehensive overview of our empirical findings as well as an adjusted theoretical framework.

4.1 Background and Context

4.1.1 Background on GlobaTech

GlobaTech is a Swedish multinational technology corporation structured among different business units and regions. All Business Units (BUs) represent a product or service area while these products and services are offered by geographically dispersed regions. Group Functions such as Sales, Strategy or Finance are organized centrally to be able to provide unified instructions and support. GlobaTech operates in a rapidly changing environment where innovation and flexibility are considered essential for success. Increased competition and decreased spending from key customers have implied slower sales growth and eroding margins leading to poor financial performance in recent years. As a response to the challenging market environment, a broad range of change initiatives have been initiated to address areas of improvement with a variety of initiatives focused on realizing internal processes efficiencies via automation. One automation initiative referred to as Process Automation Tool (PAT) has gained popularity and has been driven across different business units and regions since early Summer 2016. The PAT initiative is not sold as a product, but rather used to automate internal processes within GlobaTech (GlobaTech internal source 2017).

4.1.2 Background on PAT

Process Automation Tool (PAT) refers to a process automation whereby software robots drive existing application software in the same way that a human user does. A PAT robot can be programmed to execute any process or task that is transactional, repetitive and requires no cognitive decision making. The time-to-implementation of PAT is short: A simple process may be configured within a couple of days. Financial benefits are tangible and can be realized quickly with needed investments being low; internal studies suggest return on investment around 200% within one year for a typical PAT project.

The idea of introducing PAT was initiated in early summer 2016 and the implementation process is currently driven via smaller subprojects referred to as pilots. Since then, four PAT pilots have successfully been executed in different parts of the organization, with more potential pilots currently being in the pipeline. The official main purpose of these pilots is to examine and prove the tool in a GlobaTech test environment while simultaneously showing quick wins in terms of financial benefits. In terms of the completed pilots, the results have met the expectations and the completed pilots clearly illustrated the upside potential of PAT – yet the initiative has not been fully scaled up and remains to be driven through pilots due to current budget restrictions. Pilots were not funded through the annual budget process but were instead funded by single individuals decentrally and outside the traditional budget process, as a central funding through the traditional budget process would have taken between 12-18 months, partly due to bureaucracy and political discussions. However, the speed of execution was deemed very important by the change team, since some competitors and customers were already building bot parks using PAT. The change team needed to implement PAT fast without waiting until next year's budget cycle, thus creating a strong sense of urgency (GlobaTech internal source 2017).

One important aspect worth highlighting is that PAT is not per se an initiative to change GlobaTech's budget system. The PAT initiative is rather a technology implementation driven through the mechanism of pilots by the change team. However, to drive PAT (and future similar initiatives) successfully, the change team needs more flexible budget structures as a traditional annual budget process does not fit the trial-and-error logic needed for the implementation of the PAT initiative. Internal documents refer to this as *"Budgets a concern for all group initiatives"* and that budgets are one of the two main weaknesses in driving change despite the CEO stating that GlobaTech needs to accelerate the execution of change (GlobaTech Internal 2015). The ownership of the budget structures lies within the finance function, which, however, has not yet labelled the change of budget structures as a high priority. While the change team currently prioritizes flexibility over control mechanisms, the finance function seemingly views this matter differently, implying that initiatives such as PAT have to adjust to the current budget structures instead of budget structures having to adjust to new initiatives such as PAT.

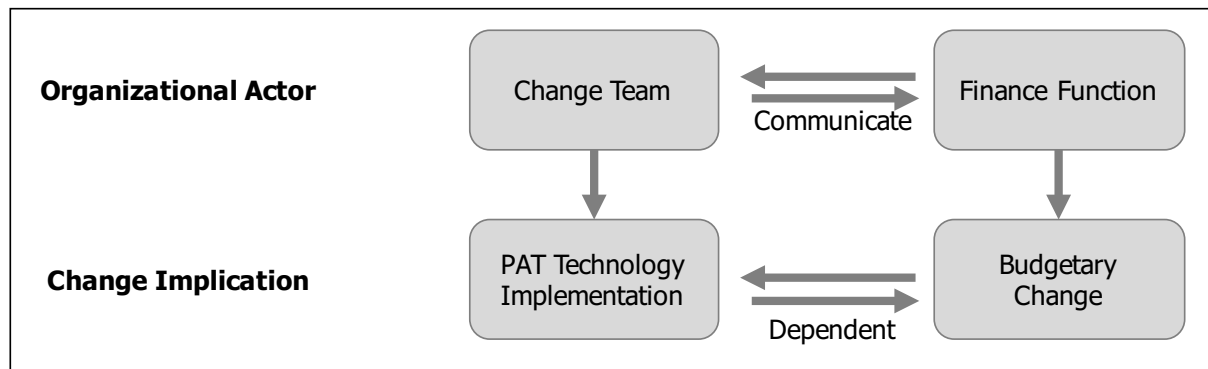


Figure 4: The relationship between PAT and Budgetary Change

The following section presents our observed empirics structured in accordance to our theoretical framework introduced in 2.3.

4.2 Case Empirics

4.2.1 Pilots Triggering Change within the Retention and Variation Sub Processes of MAC

An important factor in the explanation of management accounting stability is the retention process of evolutionary MAC as it helps to examine the underlying reasons for continuity of management accounting processes (Johansson and Siverbo 2009). At GlobaTech, a deviation from previous institutions has not yet occurred in a rationally orchestrated way: *“It would be great to change our systems radically top-down, but that is not happening. If you want to change the budget process, it has to be either finance or CEO driven”* (Change Manager A) and various people such as Change Manager B claim that these planning structures are outdated: *“Some people think that our control structures are great. But I think these structures are slowing everyone down”*. This seems to be a consequence of a low visibility and sense of urgency, as most people are not utterly aware of the shortfalls of the budgeting process: *“The first time I had to drive change myself was an eye-opener for me. I never reflected on that before that we don’t have budgets to drive cross-functional initiatives”* (Former Change Manager A), making pilots particularly useful as pilots contain the ability to trigger MAC by creating the visibility for budgetary change across the organization.

Johansson and Siverbo (2009) moreover see opposing viewpoints and power games as a key factor to explain the retention process in line with Kempster et al. (2014), who argue that change is often triggered by diverging interests and the power of single individuals. At Globatech it appears that political resistance is rather passive, as Change Manager A does not *“see active resistance from the top”*, but thinks that *“they currently have their priorities elsewhere”*. It

thus seems reasonable that the finance function does not drive a change of the budget system forward, when top-management has not labelled it as a serious matter. *“Who’s your daddy? It’s hard to request a budget change, if you don’t have the sufficient authority”* (Change Manager B). It might, however, also be hard for the finance function to drive change due to the prevalent consensus culture and bureaucratic structures at Globatech, which Change Manager A brings up: *“Too many people have something to say. Veto rights and bureaucracy make change difficult”*. This might stem from a culture of political correctness and the goal to find impeccable system solutions: *“Satisfying everyone in a 180 countries? That job sounds terrible!”* (Manager Pilot A), implying that GlobaTech might need more flexible and decentralized solutions due to the complex nature of its organization. Pilots help to trigger MAC by shifting consciousness, as pilots by nature are defined by a trial-and-error logic instead of prioritizing consensual decision making processes.

Pilots can moreover be of particular use in overcoming MAC retention and instead triggering variation by mobilizing important stakeholders. Johansson and Siverbo (2009) state that variation may arise as a consequence of political power games, while Kempster et al. (2014) claim that pilots can help in facilitating a collective sense making process. This may result in MAC becoming legitimized in the political complexity of organizations. This is of particular importance at GlobaTech as *“the whole change program set-up is countered by internal systems and politics”* (Change Manager A) exemplified by one pilot manager acknowledging that he would not have conducted a pilot, if there had been not leftover budget at the end of the year – despite fully being convinced about the PAT initiative itself. This pilot unit moreover acknowledged the importance of single individuals: *“Why we were one of the first pilots? To be honest, I think it was very much dependent on my boss, who is very open for change and improving efficiencies”* (Manager Pilot B) and Change Manager C confirmed: *“We were lucky with the sponsor of this initiative. In the end it’s always about the power of single individuals.”* This indicates that pilots may trigger the variation process of MAC by mobilizing important political stakeholders, which do not only have the power to implement a new technology faster, but may also trigger budgetary change. Opposing viewpoints to current institutions have also arisen by new employees functioning as change agents: *“We have a lot of people that worked in consulting or in start-ups before. They are not used to this bureaucracy here and it is not surprising that they want to change that”* (Operational Change Driver A).

In addition, it seems that a rationally planned top-down variation is suppressed by the complexity of budgetary change: *“Maybe it is too hard to tie everything together in one big complex machine. People at the front-end know the business very well, but don’t see the big picture, while the headquarters has the whole picture but does not have the same business insights”* (Performance and Improvement Manager), which is why pilots can be a useful tool to embrace and align a formally strategically driven planned change. This in line with Former Change Manager C, who states that *“Finance is sometimes a little distant from the rest of the company and they may not fully see some upsides of the new market reality. But they also sit on a lot of information and are able to identify fake improvements”*, implying that communication between front-end and the finance function is crucial to integrate different MAC initiatives into an overall plan. Pilots can trigger MAC as they do not have to incorporate all the organizational complexities into the change project due to them operating in a rather simplified environment.

Variation of MAC can also be triggered through an adaption to successful role models. The Operational Driver Pilot A stated that *“we have to become like Google – not from a product-perspective, but from an internal process-perspective”* and Change Manager A sees adaption to competitors as an important factor too: *“A lot of our competitors have transformed themselves, IBM has implemented beyond budgeting. Maybe we should do that too”*. However, developed rules and routines might differ between organizations grounded on contingency theory: *What worked for GE, worked for GE in a specific context. We can’t just copy some best practices and believe that it will solve everything* (Performance and Improvement Manager). Pilots might, however, be a solution to this problem, as they enable GlobaTech to try out best practices before implementing them at full scale and hence can trigger the variation process of MAC by experimenting with external best practices in a trial-and-error way.

Lastly, pilots can trigger the variation process of MAC by circumventing traditional management accounting structures: *“Why we are still going with the pilot approach? I think that goes hand-in-hand with all those budget requirements. With this pilot approach, it is quicker to implement. The moment you decide to go big and scale up, the budget requirements increase dramatically. Driving this initiative with a pilot approach worked well given all the budget requirements we have to deal with”* (Operational Change Driver A). This is in line with the Manager Pilot B, who states that PAT *“does not fit the current operating model”* and is hence driven via pilots to circumvent traditional structures. Financial Controller A states that

some projects are driven *“around the current budget system, but this is not the optimal solution”*, which is confirmed by Operational Change Driver B, who states that the change team *“could roll out more projects with a higher impact, but the current systems don’t let us.”* By circumventing the traditional budget process, pilots decouple routines from institutionalized rules for efficiency reasons and consequently contain the potential to trigger some form of MAC.

4.2.2 Pilots Generating Momentum within the Variation Process of MAC

We have more than once heard that *“Budget is power”* (Change Manager A), yet top executives with the necessary budget power understandably have a hard time evaluating the potential of different technologies and projects. Political issues have to be taken into consideration not only when looking how pilots act as a trigger, but also how pilots can keep up momentum for MAC, as pilots are a quick tool to generate and maintain momentum by aligning important stakeholders through creation of concrete and tangible results that a more flexible budget approach is needed. The Former Change Manager B values driving change via pilots highly as she believes that pilots create concreteness and can be an eye-opener for many people, while Change Manager C confirms the value of pilots in creating political alignment: *“It’s sometimes hard to get people on board, but pilots help by showing tangible benefits and quick results.”* This is further enhanced by the multiplicity of pilots which can be considered vital in maintaining political alignment: *“One project is not enough to bring people on the same page. We need a hundred pilots to convince everyone here. People seem to have a ‘too good to be true’ attitude”* (Change Manager B). Kempster et al. (2014) refer to pilots as *“pockets of commitment”* (p. 156) during political change management, allowing for aligning divergent interests in the political process. The Improvement and Performance Manager argues that *“Pilots can be very useful for political reasons and convincing people”*, while Change Manager C is satisfied with the use of pilots for political purposes: *“Pilots have solved a big share of political barriers. For the top-people it’s hard to decide on the right changes, but pilots are a way to educate them.”* It thus seems that pilots cannot only trigger MAC, but also keep the momentum for change up by aligning political stakeholders and constantly showing concrete outcomes.

It can moreover be argued that pilots create momentum for MAC by revealing budget inefficiencies, which would have otherwise remained hidden, which is in line with Johansson and Siverbo (2009), who state that variation does not necessarily have to be driven by

exogenous factors, but can also be driven internally. These endogenous factors can be a consequence of dissatisfaction within prevalent structures such as the budgeting process: *“How the budget process works here? Not efficiently! I sometimes see a very weak connection between what we say that we want to do and what we are actually doing. We decide for strategies but then we don’t necessarily allocate resources accordingly”* (Manager Pilot B). This is critical as investments should not be dependent on single individuals or coincidental budget left overs and neither should units *“need to wait one year to scale up the project”* (Change Manager A). Instead, as a response to the short execution time of pilots there is a call at GlobaTech for a structured budget process with enhanced flexibility, as the Manager of Pilot A emphasizes: *“Most of the time when we talk about IT projects, we talk in time-lines of years. Here we talk about days”*, raising the question how a budget process can then be yearly. This has led to a rethinking towards an empowerment of front-line employees as they know their business best: *“our people know what they need to do”* (Manager Pilot B) and the Performance and Improvement Manager sees a need to *“plan the unplannable”* as a response to a fast-moving market environment. This has to be reflected not only in GlobaTech’s strategy, but also in the budgeting processes: *“For me it’s all about flexibility nowadays. And both our mentality and our systems will have to reflect that”* (Change Manager A).

However, such decentralized solutions require significant bottom-up involvement of local units, which has not been the case at GlobaTech to date: *“I’ve seen strongly governed top-down initiatives fail, because they didn’t get the acceptance of the employees. You need to have both top-down and bottom-up buy-in”* (Former Change Manager A). The use of pilots in the PAT initiative creates momentum from the bottom, although not explicitly in changing the management accounting systems. However, involving a lot of units in the PAT initiative contains the potential to keep up the momentum for MAC by creating visibility for the need of new budget structures and restoring faith of some front-line in their own ability to drive change: *“Some people might say: ‘I will never get budget anyways, so let’s just use what we have and see where we can get’”* (Manager Pilot B) – also due to promoted cultural values at Globatech: *“One of our core values is perseverance - not the best value if you want to drive a test and fail fast kind of culture I think”* (Manager Pilot B). This makes investing hard as a lot of resources are already bound within the budget process. As a consequence, new projects are hard to launch, but pilots are one way to still secure funding as they are able to circumvent the traditional budget process due to their relatively low investment need. As MAC is not happening in a centralized top-down fashion, pilots are a way to drive MAC in a rather unsystematic manner from the

bottom without even communicating the clear aim to change the budget systems, but rather implying the need for change by working around institutionalized structures. In addition, local commitment and involvement of front-line employees have been deemed a cornerstone of successful change (Kempster et al. 2014). This may lead to shared ownership structures, if units feel that they are an essential part of the change set-up: *“I truly believe that the units have to see themselves that they need to change their structures. And the ‘PAT’ pilots are great to seed this idea”* (Change Manager B). Pilots can help in seeding the idea for a new budget system in a bottom-up driven manner by showing the best practice potential of the prevailing routines decoupled from prescribed traditional budget behavior: *“We have shown that we can drive things faster if we don’t work according to our current structures. Bureaucracy and budget limitations slow us down. If people recognize that our approach works better, they’ll hopefully see a need to change their structures too”* (Change Manager C).

Maintaining momentum through pilots is moreover dependent on a “push-pull-effect”: *“In the beginning, it was difficult to find the first units, who were willing to do a pilot – now the pipeline of potential pilot units grows continuously. We could do a hundred pilots if we had the necessary resources”* (Change Manager A) and Operational Change Driver B confirms this pipeline of potential pilots: *“We have a longlist of pilots right now and the list keeps growing”*. As not all pilots are conducted simultaneously, but rather sequential, the momentum for a change of the budget system cannot only be created but also maintained. Former Change Manager A highlights this importance of maintaining momentum over a longer period of time: *“We need to create some momentum both for the decision-makers at the top, but also for the operational people at the bottom [...] the span of attention is moving very fast here. The top priority of today might be a low priority tomorrow.”* This implies that multiple and sequential pilots are needed to create and maintain sufficient momentum for MAC.

One aspect worth noting is that we have heard voices about the potential usefulness of pilots in driving MAC: *“The good thing about pilots is that you can test something new. That can be a technology or a new incentive or budget system. The risk is pretty low. But if you have a pretty standardized process across organizational units it’s pretty much copy paste from there”* (Operational Change Driver B). This is in line with Former Change Manager C who acknowledges that the concept of more flexible budgeting is interesting especially in fast-moving business environments, yet he is cautious about the risks of losing cost control, advocating for a somewhat radical implementation, but merely in a smaller part of an

organization: *“Beyond Budgeting may work in some areas, but not in others. I think you should try it out in smaller settings and work with it for a while before you introduce it to the whole company”*. However, while we have not seen the use of pilots in an official project to change the management accounting structures at GlobaTech, we were nevertheless able to observe two changes in the management accounting systems, arguably driven by pilots in an indirect way as implied by Change Manager C: *“I think that the ‘PAT’ pilots can be used to create a change case for something bigger such as our budget system”* and the Performance and Improvement Manager agrees as he believes that the PAT pilots can be used *“as an example to pitch a more flexible budget approach”*.

4.2.3 Pilots Delivering Quick Results within the Selection Process of MAC

Pilots Have Delivered Quick Results I: Change of Budget Cycles in One Unit

The mere presence of variation is incapable of explaining evolutionary MAC as it is the selection process which specifies the direction of change, which is also linked to the observable outcomes of the MAC process: *“Variation necessarily supplies evolution with fuel for the fire, but it is selection that controls the direction of the fire”* (Johansson and Siverbo 2009, p. 155). Pilots by their nature are able to deliver quick results, in GlobaTech’s case not only observable in the fast implementation of the PAT initiative, but also in rather timely response of a budget cycle change to be better suited for digital initiatives such as PAT. One particular unit changed their budget process, which was referred to as a consequence to the needs of new digital initiatives such as PAT with the Change Manager B stating that this unit *“is quite aligned with this more flexible way of working. They have now – as the only unit to date – changed their budget process from annual to quarterly budgets. I think that’s a step in the right direction. [...] Maybe they can be a role model for the rest”*, highlighting the potential replicability effect. However, while this MAC has been viewed positively as a step towards more flexibility in the budgeting process, the call for increased flexibility in the planning process still remains: *“We used a lot of pilots to get funding quicker. [...] But you need a separate budget for this ‘try-fast-fail-fast mentality’”* (Change Manager B).

Pilots Have Delivered Quick Results II: Creation of a Central Change Management Budget

One interesting aspect worth noting is that already back in 2015, a company-wide initiative related to a more flexible budgeting system and change initiative budgets was launched and later shut down due to political reasons and changes in the executive leadership team. The change initiative budgets had been introduced in one unit and the proposal was to implement

them company-wide as they were considered essential to drive projects such as PAT in a successful manner. Interview subjects from the change team have all mentioned and referred to these flexible change initiative budgets during their interviews, in the context that it was of big importance for the company to drive initiatives with similar characteristics to PAT. However, we have not seen any official documentation of a new proposal to change the budget systems, yet we have seen a change towards one small change management budget as a reaction of the change unit to current budgetary restrictions. This separate change management budget *“works like a Venture Capital Fund”* (Change Manager C) and was a reaction to insufficient management accounting capabilities: *“As the traditional budgeting process didn’t help us to drive change, our own change budget was a way to get at least some funding”* (Change Manager C). However, while these small pragmatic changes are immediately entrenched in the operational work, the solution is still only seen as the first step, especially since the change management team has not yet succeeded in increasing this side budget: *“The problems with our budget process have been quite visible for a while. We created our own budget from the bottom to fund change initiatives. But it’s still too small”* (Change Manager A). This is interesting as it seems that the change of budget systems towards more flexibility still has a high priority, but there are currently no official projects around this matter. It thus seems that the change of the change management budget is currently rather driven in an indirect way. Change Manager C states that PAT is currently driven in *“an informal operating model”*, but he believes that *“pilots will be an essential part of the new operating model”*, advocating for autonomous change budgets to facilitate a more entrepreneurial mind-set. This is evident as PAT remains to be driven through pilots despite the technology itself being proven and it rather seems that budgeting via pilots becomes a routine in GlobaTech. While the PAT initiative remains to be driven rather emergent and without an institutionalized operating model, the Operational Change Driver A believes that the operating model – which *“includes new ways of budgeting”* (Change Manager B) – will have to become formalized soon: *“We have driven ‘PAT’ somewhat around existing structures. But now as it is getting bigger and bigger there is a need for formalized structures.”*

4.3 Overview of Empirical Findings and Adaption of the Theoretical Framework

Figure 5 summarizes the main empirical findings of our study, structured along the three change dynamics of pilots. Our empirical findings show that pilots have triggered management accounting change (MAC), maintained the momentum and have delivered quick results.

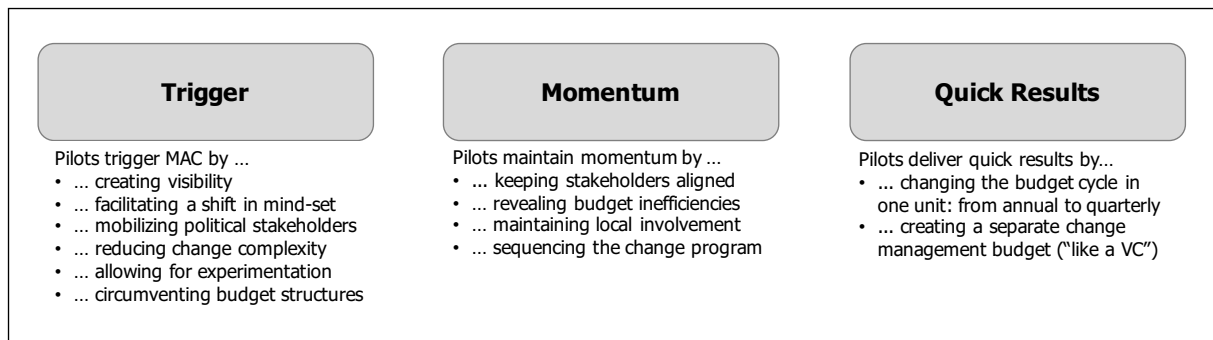


Figure 5: Overview of empirical findings

We believe that our empirics also show that quick results are not the end of the MAC process through pilots. It rather seems that quick results can act as a role model for future changes and thus trigger new changes of the management accounting structures. Quick results moreover help to keep up the momentum for change, as only by showing quick results, pilots can maintain a sense of urgency due to concrete and tangible outcomes. This iterative process is most likely a consequence of the overall change plan not being determined from the start of the change process, and that new realities rather have to be incorporated into the MAC process over time. We believe that this iterative loop contains the ability to trigger new changes and that quick results further increase and maintain momentum for the overall change effort. We draw of this proposition in the following contribution to explain the concept of accelerated MAC, as we believe that pilots have helped to increase the speed of the evolutionary MAC process.

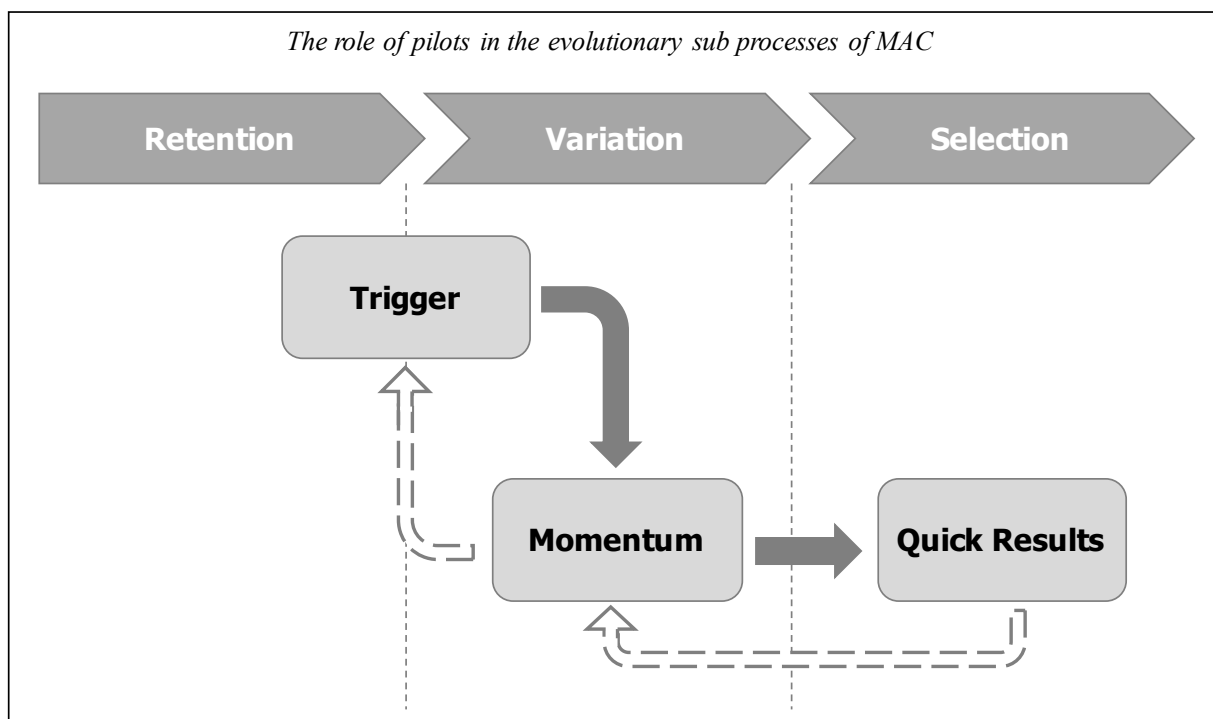


Figure 6: Adjusted Theoretical Framework

5. Analysis

This section analyses the findings presented in the previous section in relation to our domain theory described in 2.1 in order to answer our two research questions. Section 5.1 discusses our contribution to 2.1.2 by showing an extension to evolutionary MAC. Section 5.2 discusses our contribution to 2.1.3 by showing how pilots can act as an informal management accounting change engine.

5.1 The Accelerated Management Accounting Change Process

We have sought to understand what we have defined as the grey zone of evolutionary management accounting change (MAC), since recent research on MAC has drawn a somewhat mutual conclusion that revolutionary and evolutionary MAC are not black and white (Johansson and Siverbo 2009, de Waal et al. 2011, van der Steen 2011, Coad and Cullen 2006, Quinn 2014), and that the definition of, especially, evolutionary MAC has been too narrow and simplified according to the conceptual frameworks presented by the early research stream of MAC. However, there is a lack of exemplified patterns proving the need to extend the traditional definition of evolutionary MAC. In order to draw new conclusions and contribute to this emerging research stream, we have investigated the MAC of GlobaTech's budget system through pilot theory.

The case study of GlobaTech's PAT initiative has shown a change in management accounting systems. We claim that the pattern of the MAC process using pilots has neither been according to the traditional revolutionary nor the evolutionary definition as it deviates from existing consensus of these two concepts. We thus claim that the concept of evolutionary MAC ought to be extended, including what we have defined as the *accelerated management accounting change process*. That being said, we do not claim that accelerated MAC is the only extension that has to be made to the evolutionary MAC theory within what we suggest to define as the grey zone of evolutionary MAC (illustrated in Figure 7). But we rather recognize that evolutionary MAC theory could be extended with several other MAC patterns, that by research can be proved deviates from the general perception of evolutionary MAC as a gradual somewhat straight-line pattern.

We define accelerated MAC as an evolutionary process, which is kick-started, or *catapulted*, by using a trigger such as a pilot. This accelerated MAC pattern is comparable to a reversed hockey stick (see Figure 7), which illustrates the catapulted start of the MAC process that

transcends into a traditional pattern of evolutionary MAC when the momentum created by pilots starts to fade out. Accelerated MAC is still a cumulative process, but drawing on Johansson and Siverbo's (2009) sub processes of MAC, we have investigated the MAC process on a more granular level, and hence argue that the process pattern in GlobaTech is different from the traditional definition of evolutionary MAC as expressed by an early research stream (e.g. Burns and Scapens 2000, Busco and Scapens 2011, Scapens and Jazayeri 2003).

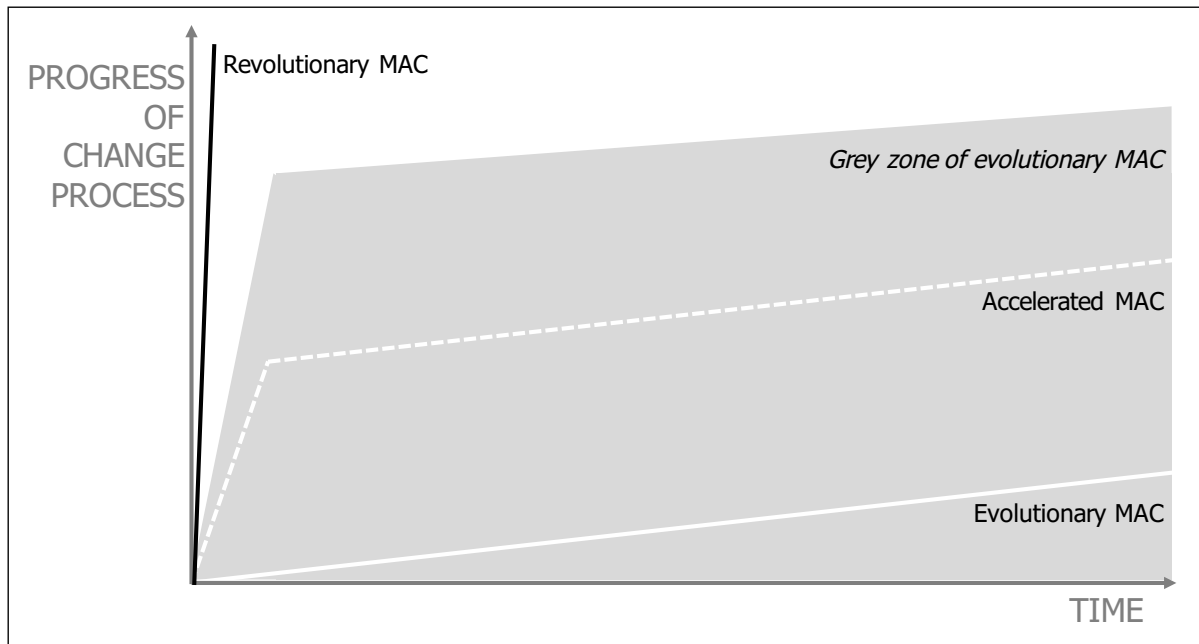


Figure 7: Illustration of the Accelerated MAC Process

Politically Governed Enactment and Reproduction of New Accounting Structures

Although there is a clear need for developing the management accounting practices, no formalized change proposals of those are seen. The ownership of the management accounting system is part of the finance department's responsibility, but MAC is unlikely to be driven by the finance department if there is a potential risk of reduction of power or *raison d'être* related to the proposed MAC unless there are any incentives (e.g. Howcroft 2006, Ekholm and Wallin 2011, Granlund 2001, Robalo 2014, Dawson 2003). One other potential reason could be that they see the current systems as satisfactory efficient, making them passive, which is line with the results presented by de Waal et al. (2011). At GlobaTech, both incentives and a push for MAC can be levered from senior management who hold ownership of the agenda. However, that would imply a slow-moving decision making process because of the institutionalized culture of meetings and consensus in addition to the inherent bureaucracy. As pilots helps govern the political tensions of an organization, the enactment and reproduction can start

institutionalizing into rules, formalized and encoded by the company as we argue that pilots showcase the benefits, which can persuade senior management. This way, the initiators of the pilot have made a clear short cut in the MAC process by driving change informally.

An Emergent Pilot Strategy as a Response to the Employees' Call for More Flexibility

GlobaTech has in recent years been subject to both external and internal pressure, both created by factors of exogenous origin such as the need to move faster in the competitive environment driven by fast pace technology development or new customer needs and endogenous factors such as restructurings and reorganizations. The identified contingency factors, indicating a need for decentralized working structure and need for more flexibility, have not been translated into any top-down initiative of change in the management accounting systems although it is suggested, both by literature (Hansen et al. 2003, Hope and Fraser 2003) and our empirical findings, to be desirable. The motivation and argumentation presented have been the prioritization scheme of the executive leadership team which has had other change projects occupying attention. However, the problem is that moving fast requires more flexible budget systems as budgets are very interwoven to the decision making power in GlobaTech (e.g. Frow et al. 2010, Wallander 1999). This has led to dissatisfaction within the organization as the cumbersomeness of driving new change initiatives has created frustration amongst the company members due to the lack of formal power to change the budget system according to new needs. A complete and formalized MAC into a flexible budget system, such as Beyond Budgeting, requires revolutionary MAC, which implies substantial top-down engagement in order to happen according to literature (Hope and Fraser 2003, Burns and Scapens 2000, Player 2003, Sandalgaard and Bukh 2013, Bourmistrov and Kaarboe 2013). However, through this study we see that a movement into a semi-flexible budget system do not require senior managements formal engagement if driven through pilots since we, in line with de Waal et al. (2011), argue that momentum for change is of at least equal importance.

With the above part in mind, we could see a gap in prioritization between senior managers and initiative drivers and as response to this, a bottom-up change movement via pilots was launched by the initiative owners. What made this a priority for them was the implementation of PAT, a new technology that allows the project to be completed in a few months rather than over a year, circumventing current management accounting practices as well as inherent bureaucracy and political issues. The mentioned parameters required a non-traditional way of working with the change initiative and contributed to the idea of pilots, which created momentum for MAC.

Breaking and Building Institutions Through Pilots

Pilots can be used as triggers to break current institutions. This can both happen informally, through new emerging ways of working, or formally by for example introducing new management accounting tools (Makrygiannakis and Jack 2016). Through our observations we show that in a risk-averse environment with strong culture of perseverance, pilots can help to trigger MAC as they are able to decouple institutionalized values, such as meeting and consensus cultures, and generate new values. At GlobaTech it helped drive a trial-and-error mindset routine in a flexible manner with no directly pre-allocated funding. One way of expressing this is that pilots solve (or avoid) a big share of existing barriers, such as budget meetings and political issues, and overleap the road blocks, which allows for the acceleration of change in management accounting routines to happen and gain speed without being hampered by speed jumps in its initial phase. To maintain the momentum multiple pilots can be utilized and the multiplicity of pilots help create visibility of a new management accounting practice across the organization. Hence, the visibility of new emerging accounting routines was not limited to closed meeting rooms and certain sub-groups of the organization and rather has served as a political communication tool. MAC is moreover triggered as a consequence of the arrival of new opposing views from the current behaviors which has been seen in previous research (de Waal et al. 2011). The need for sense of urgency is not an unreasonable assumption to drive any major accounting change in an organization, and this could be created by new members of an organization with legitimacy and power to drive cross-organizational initiatives in an emergent manner (Johansson and Siverbo 2009, Granlund 2001).

The case study showcases how the pilot routine after gaining momentum moves towards institutionalization as reproduction is being conducted – the use of pilots has in one of GlobaTech's units moved into what is referred to as change management budgets and one unit has changed to quarterly budget cycles, both changes in the direction of more flexible budget systems. We have thus observed MAC as an effect of the technical PAT pilots. We have generally observed curiosity around these change management budgets, which is why we claim that the institutionalization process is now ongoing. The pilots can prove the benefits of a new management accounting system and it being possible to change it fast which, ultimately, lead to curiosity in the organization and a wish to replicate that way of working. Conceptually it can be explained as the acceleration phase, which is triggered by pilots and moves into a 'traditional' evolution of MAC as the reproduction does not necessarily have to happen at the same fast pace as when catapulted in the acceleration phase. However, it is evident that the

action realm very clearly moves towards institutional realm through the process of institutionalization in line with Burns and Scapens (2000).

Accelerated MAC is a process which uses pilots to catapult its start. Through pilots, momentum can be obtained and maintained to overcome barriers of change, since pilots often do not need to pass the same formalized decision making and budget mechanisms as other projects. This allows the MAC process to, if accepted by the members of the organization, gain speed in the phase where momentum is retained before moving into routinization and an evolutionary pattern. We thus claim that the concept of evolutionary MAC has to be extended by various patterns, one being the accelerated MAC process.

5.2 The Trojan Horse Mechanism

“We need to quickly provide the business with an interim PAT solution”

(GlobaTech Internal 2017)

“We have shown that we can drive things faster if we don’t work according to our current structures. Bureaucracy and budget limitations slow us down. If people recognize that our approach works better, they’ll hopefully see a need to change their structures too”

(Change Manager C)

While the official objective of the PAT pilot program is to quickly implement a new technological automation initiative, our empirics show that the PAT initiative is repeatedly seen as one part of a profound change set-up: the change of underlying institutionalized structures and systems (“operating model”) including budget structures. We were able to observe changes of the management accounting systems within two departments. In one unit the yearly budgeting process was adjusted to quarterly cycles to provide enhanced flexibility as a response to the need of digital initiatives such as PAT and another unit implemented a small change management budget. These are arguably consequences of the pilot strategy, since this way of driving change showed the potential of the PAT initiative when it is executed with a speed needed in this new digital era.

The emergent stream of pilot literature has primarily focused on the formal nature of change. Yet, Kempster et al. (2014) have called for further research on the informal consequences of a

pilot approach: “It may be that rather than formal pilots an informal or even metaphoric pilot process occurred. Researching the nature of pilots – formal and informal – may reveal that much change management practice activity does occur through pilots and researchers have not been attuned to this and made visible this practice” (p. 163). Burns and Vaivio (2001) placed emphasis on this informal nature of management accounting change (MAC). We believe to have observed this informal change in a form that pilots were used to provoke the underlying management accounting systems without communicating the clear intention to change these and hence add to previous research that has acknowledged the possibility of informal MAC (e.g. Burns and Vaivio 2001, Burns and Scapens 2000, Johansson and Siverbo 2009). Burns and Vaivio (2001) further claim that decentralized MAC is most often not deliberately planned, yet we have found opposing results in our study. We contribute to the discussion between formal and informal MAC, as we have empirically observed hidden change at GlobaTech, and we suggest this change to be driven through a Trojan Horse Mechanism.³

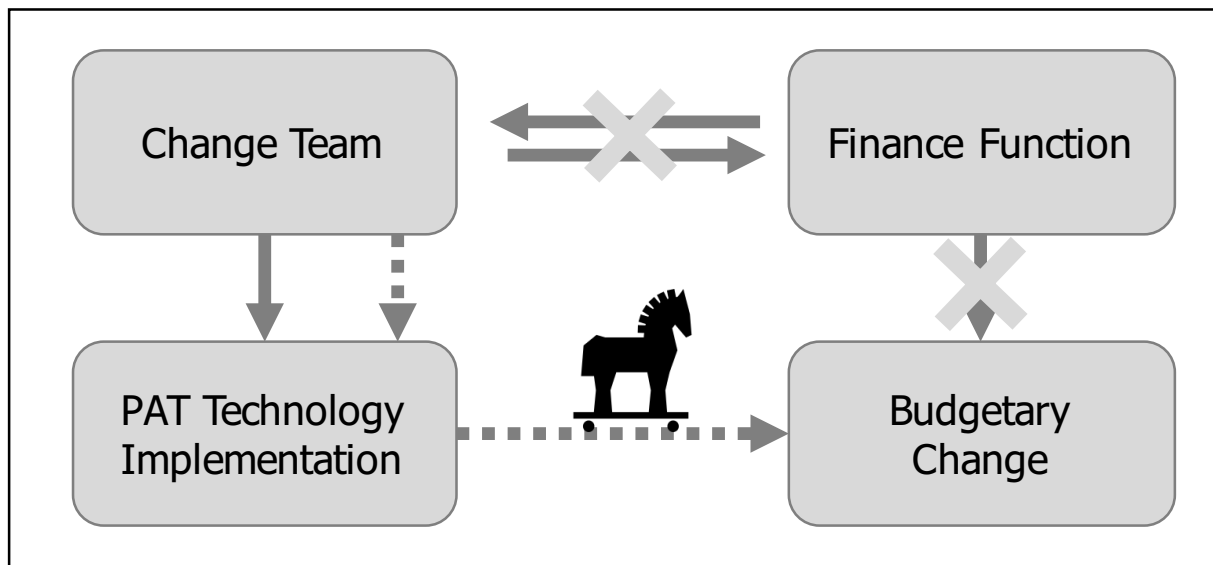


Figure 8: The Trojan Horse Mechanism: Illustration of the GlobaTech Example

We illustrate this phenomenon by the Trojan Horse metaphor, because just as Odysseus and his troops secretly infiltrated Troy with their wooden gift, the PAT pilots inherently drive the change of management accounting systems undercover. We do not claim that pilots were used in a hostile manner, however, we observed MAC as a consequence of the PAT pilots. We thus

³ The authors, however, do not claim that a Trojan Horse Mechanism is the only explanation for the observed indirect changes of GlobaTech’s budget system as we did not hear unambiguous voices that such a change strategy was deliberately used. This is solely the interpretation of the authors’ to explain the observed MAC despite the absence of formalized MAC initiatives.

contribute to the field of evolutionary MAC by showing how a pilot strategy can be used in an indirect, yet symbolic and substantive manner.

Pilots as a Response to Exceptionally Complex Change Dilemmas

After a fruitless decade long war, the Greek empire decided to change their strategy and instead of continuously trying to invade Troy through the main entrance, found another way to get into the city to achieve their desired victory. While the Trojan Horse mechanism has not been touched upon in the literature on MAC, political economy literature has referred to the Trojan Horse as a mechanism for solving exceptionally complex change dilemmas (Hensmans 2015). Translated to our case, a change of the budget systems had been unsuccessfully requested for years with the Trojan horse mechanism possibly being a resolution to change accounting structures quickly by avoiding lengthy political discussions and cumbersome bureaucratic structures. The direct way to change the accounting systems was restricted, as the change unit lacks the authority to simply request this MAC from the finance function, just as the direct way for the Greek troops was blocked by Troy's towering walls. This lack of rationally orchestrated top-down MAC is not surprising, as those who call for action are rarely the ones to implement it (Howcroft 2006, Ekholm and Wallin 2011, Granlund 2001, Robalo 2014, Dawson 2003). As a consequence of cumbersome accounting mechanisms in place, the PAT team was forced to work around institutional constraints to successfully drive the technology implementation of PAT. This was rendered possible by the underlying logic of pilots, which are not restricted by management accounting structures and thus enabled the initiative drivers to work around bureaucratic barriers and find a way to redirect the focus from socio-political discussions to actual change outcomes. By vividly visualizing concrete outcomes and involving various stakeholders across the organization through pilots, the PAT team established a case for the change of the budget system to eventually accelerate the MAC process.

Technology Pilots containing a Hidden Management Accounting Change

The most recited feature of a Trojan horse lies within its ability to hide an underlying substance from its recipients. While the strategy can be perceived as a risky way of driving change, since it might be perceived as hostile, the large dissatisfaction with the current management accounting processes would justify such a strategy. However, GlobaTech could not enable variation of the management accounting systems (Johansson and Siverbo 2009) in a rationally orchestrated way due to rather “*low legitimacy due to their embeddedness in a contested logic*” and hence “*strategically incorporated a majority of elements from the predominant logic to*

gain legitimacy and acceptance” (Pache and Santos 2013, p. 973) by officially accepting the current budget structures and working with the given structures. This might be perceived as a kind of surrender to the traditional budget structures, making room for the conduction of pilots across different organizational units – even within rather resistant ones from a MAC perspective, which do not clearly see the hidden substance of the pilots. Rather, resistant organizational units are willing to accept a pilot experiment, if they still feel in control of the larger process implementation, where the real change is driven (Billé 2010). Another central attribute of the *Trojan Horse mechanism* is the dynamic of gift-giving. By presenting organizational units a gift in form of a “*bulletproof technology*” (Change Manager A), the change unit is able to strengthen the bonds to other organizational units, creating increased openness for a change such as for instance the accounting systems (Hensmans 2015). By handing this gift to powerful internal stakeholders, the change unit is able to show the clear need for a variation of the management accounting systems and create a case for MAC. This case for change is driven by the mechanism of pilots as they are able to show concrete, expectable outcomes on the larger scale. Lastly, pilots can help to change the underlying management accounting systems by transforming the rather risk-averse culture at GlobaTech towards a more entrepreneurial mind-set, as pilots by their nature are defined by trial-and-error behavior.

Pilots creating a Dynamic for Management Accounting Change

As soon as the Trojans let the gift inside their insurmountable walls, the Trojan horse created a dynamic in favor of the Greek troops, which could only hardly be detained. Stevenson (2006) has examined this phenomenon in a political context, arguing that the Chinese government is incapable of accepting even incremental pieces of Western legal forms, as caving in might lead to the consequential replication of unwanted reforms throughout the whole Chinese system and argues that the Trojan horse mechanism can be used by Western governments to drive legal reforms secretly. The direction and dynamic of pilots at GlobaTech is similar: While the pilots were initially labelled as a test of the technology, the proof about the functionality of PAT was delivered after the first test period and thus does not need further examination. Yet, the change management team continues to drive the PAT program with multiple pilots as a way around the management accounting systems – and as a potential strategy to change them. The hardly stoppable dynamic is apparent in the pull-effect created by pockets of commitment and shared ownership structures leading to a pipeline of units willing to launch their own pilot. This multiplicity of pilots leads to an involvement of many different actors at GlobaTech revealing

the shortfalls of the present management accounting structures (Burns and Vaivio 2001). The Trojan horse then unveils its purpose of changing the underlying management accounting structures at GlobaTech and creates a transformational MAC dynamic from within as more and more units integrate the normative justice of new management accounting structures. We believe to have just seen the beginning of this dynamic with the change of the budget cycles in one unit and the smaller change management budget in another, yet the PAT team has succeeded in involving more and more powerful stakeholders into the pilot process and it can be expected that these will not be the last units changing their ways of working towards more flexibility and agility.

6. Conclusion

6.1 Conclusion

This paper contributes to existing research in the evolutionary management accounting change (MAC) literature by drawing on the emergent research stream of pilot theory. While previous research has seen MAC as a dichotomy with evolutionary and revolutionary as two opposing extremes, we answer a call by Johansson and Siverbo (2009) and extend the concept of evolutionary MAC by looking at the three sub processes of evolutionary MAC: retention, variation and selection. We analyzed these sub processes through a pilot lens and were able to identify an evolutionary MAC pattern different from the traditional view, which has defined evolutionary MAC as merely gradual and slow. We refer to this new pattern as the *accelerated management accounting change process*, characterized by an initial kick-start period, or catapult, using a trigger such as a pilot. We believe that one key driver for the emergence of this new change pattern are new fast-moving market environments requiring enhanced speed and flexibility as prevalent management accounting structures arguably have become outdated in current times. The change pattern of accelerated MAC is comparable to a reversed hockey stick which illustrates the kick-start of the MAC process and transcends into a traditional pattern of evolutionary MAC, when the momentum created by pilots starts to fade out. Accelerated MAC is still seen as a cumulative process, but we argue that the observed MAC process pattern differs from the processes of evolutionary MAC as described by previous research. That being said, we do not claim that accelerated MAC is the only extension that has to be made to evolutionary MAC theory, but recognize that this theory could be extended with several MAC patterns that deviate from the general perception of evolutionary MAC being merely gradual and slow. We furthermore add to the under investigated discussion of informal MAC as we have observed the use of pilots in provoking contemporary management accounting structures without the clear communication to change these. We refer to this pattern as the *Trojan Horse mechanism*, because just as Odysseus and his troops secretly infiltrated Troy with their wooden gift, pilots can inherently drive the change of management accounting systems undercover.

Overall, this study supports the current criticism on the traditional dichotomic nature of MAC and the consequential narrow definition of evolutionary MAC. We support an extension of the evolutionary MAC definition and show how pilots are interacting within the dynamics of MAC. Our study further indicates that we have merely showcased one single pattern and that we believe that evolutionary MAC has to be seen as a spectrum of different hybridization patterns

that remain to be examined.

6.2 Limitations and Suggestions for Further Research

This study has been limited to the time given by the thesis period, and ends before the management accounting change (MAC) process of GlobaTech's budget system is fully completed. This is natural since an evolutionary budget change process can take up to several years (Makrygiannakis and Jack 2016). The scope of this study puts emphasis on the initial period of MAC, but in order to see potential further effects and deviating patterns at a later stage of the process and generalize those, a longitudinal study could have been of value. In addition, to increase the level of generalizability a multiple case study could have been interesting and value adding rather than conducting a single in-depth case study. For example, by including studies at other organizations in the technology industry, or in other industries but with similar characteristics or contingency factors as GlobaTech. Again, with respect to the time limit, the risk would have been to generate more breadth and less depth, which would have weakened our conclusions. When discussing generalizability, it is also relevant to mention that our conclusions are based on these specific contingency factors and characteristics of the company – for example, results could potentially have appeared different if the company did not experience the same fast moving environment and changes in company structure, and if the level of resistance to change would have been different. Moreover, in studies similar to this one the risk of interview subject composition and the validity of their answers are usually brought up. As discussed in the method section, these risks have been mitigated throughout the study and the picture presented in this study is perceived to be in line with reality.

One other limitation could be found in the theoretical framework presented, as this paper does not stress the interlinkages between the identified categories. In addition, the used pilot change literature is not mature yet, but rather in the nascent area of research and hence the choice of our method theory could be challenged. However, the uniqueness of pilot theory has a lot of new interesting perspectives to add to the MAC field and also fits well as there are clear interfaces and linkages to the existing MAC literature.

Further research may address the abovementioned limitations of our study. We have moreover acknowledged that the accelerated MAC process is merely one specific pattern that we can add to the grey zone of evolutionary MAC and that pilots are one type of trigger that facilitated the

acceleration of MAC. Further research may aim to both examine patterns different from the one described in our study and additional triggers that can lead to accelerated MAC. We have further acknowledged earlier that the sub processes of MAC and the dynamics of change through pilots are highly interdependent, yet to analyze them on a more granular level, we decided to look at the different aspects relatively independent. Further research might want to analyze these interdependencies more in-depth.

In addition, we believe that this study has started to shed light on the informal possibilities of MAC through the Trojan Horse mechanism, but there is more research to be conducted. We have not yet seen the final outcomes of our study and we have barely seen the short-term consequences. We believe that further research should investigate the long-term consequences of a Trojan horse mechanism, as we believe that the future demeanor of employees towards MAC initiatives will not necessarily be gentle due to the imprint in their memory.

Lastly, we have investigated the phenomena of accelerated MAC and the Trojan Horse mechanism relatively independent from each other. However, we believe that the Trojan Horse mechanism can be considered an essential driver for accelerated MAC to happen as well as vice versa. Future research should investigate the relations between these two MAC mechanisms to proof or disproof whether these phenomena can happen independently or are inevitably dependent of each other.

7. Bibliography

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8. Appendix

List of interviewees

#	Function	Date	Location
1	Change Manager B	24. Feb & 21. Apr	Stockholm
2	Financial Controller	01. Mar	Stockholm
3	Manager Pilot A	01. Mar	Phone
4	Operational Driver Pilot A	01. Mar	Phone
5	Change Manager A	02. Mar & 08. May	Stockholm
6	Performance and Improvement Manager	02. Mar	Stockholm
7	Change Manager C	08. Mar	Stockholm
8	Finance A	27. Mar	Stockholm
9	Finance B	27. Mar	Stockholm
10	Finance C	27. Mar	Stockholm
11	Former Change Manager A	31. Mar	Stockholm
12	Operational Change Driver A	31. Mar	Phone
13	Operational Change Driver B	31. Mar	Phone
14	Former Change Manager B	06. Apr	Stockholm
15	Manager Pilot B	07. Apr	Stockholm
16	Former Change Manager C	04. May	Phone