

Organizational life cycles and management control systems design

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Abstract

This paper explores the literature relating Organizational Life Cycle theory with Management Control Systems design. During the birth stage, much emphasis is put on cultural controls. In the growth stage, cultural controls remain important, but the degree of formalization increases with cybernetic controls and administrative controls. During the maturity stage, the most bureaucratic phase is reached with many planning and administrative controls. The revival stage shows a renewed focus on cultural controls and a reduction of administrative controls. Not many findings are available that discuss the decline stage. It is argued that each stage represents important challenges for the CFO.

Relevance to practice

This study aims to help managers in the process of setting up an MCS that will fit the current OLC stage of their organization. It also identifies the challenges for the finance function when the organization is about to migrate to a different stage in the OLC.

Keywords

Organizational life cycles (OLC), growth models, management control systems (MCSs), MCS design, MCS as a package

1. Introduction

Dutch carmaker *Lightyear* was founded in 2016. The company designs and manufactures cars partially powered by solar energy. The first model launched was the Lightyear 1; an exclusive model with a purchase price of 250,000 euros. In 2025, with the launch of the Lightyear 2 model, the company wanted to offer a solar car that should be accessible to a wider audience: target asking price 40,000 euros. There was a lot of interest in this model, for example, car leasing company *Arval* placed an order for 10,000 vehicles and the total number of pre-orders for this model reached a total value of 840 million euros in December 2022. It was a huge surprise when the company was declared bankrupt only one month later. “Lightyear, solar car producer stalled in growth spurt” headlined the Dutch newspaper *NRC Handelsblad* on Jan. 27, 2023.

The above headline suggests that there is a connection between growth on the one hand, and management control problems on the other. Apparently, ambitious growth plans

backed by well-filled order books do not guarantee continuity. Still, every start-up entrepreneur would welcome a stage in which his company shows growth figures like Lightyear’s, even if that growth is apparently not without risks.

Organizational Life Cycle (OLC) theory suggests that organizations grow through distinct stages: birth, growth, maturity, revival, and decline. This paper explores the relationships between these stages and (elements of) a Management Control System (MCS). Theory suggests that there is indeed a relationship between OLC and MCS design (see e.g., Au-zair and Langfield-Smith 2005; Macintosh and Quattrone 2011; Morris et al. 2006; Simons 2000; Su et al. 2013; Su et al. 2015a; Su et al. 2015b). Nevertheless, not much literature is available that explicitly deals with this topic. Macintosh and Quattrone (2011) provide a short overview of the possible impact of the different OLC stages on the design of an MCS. Simons briefly links OLC stages to his Levers of Control framework (2000), and Su et al. (2013; 2015a; 2015b)

show that there is a relationship between OLC and the use of Simons's interactive and diagnostic control systems. Meanwhile, Moores and Yuen (2001) relate "the change in the formality of management accounting systems" to OLC.

Most of this research focuses on a *single* growth stage, however. For instance, various papers deal with the relationship between MCS and start-up companies (Davila and Foster 2005; Samagaio et al. 2018; Sandino 2007). There is also a study by Silvola (2008) that focusses specifically on the relationship between MCS and organizations in their growth and revival stages. To our knowledge, no comprehensive study is available that addresses *all* OLC stages with respect to MCS design.

The relevance of this study is rooted in a recent paper by Martin (2020). In this paper it is advocated that future MCS research could benefit from a shift towards more longitudinal oriented approaches instead of cross-sectional research design. By doing so MCS research will extend the understanding both of how the mechanisms utilized by control systems change over time and whether and how the integration of these processes changes as the firm develops. "Identifying a firm's life cycle stage provides a method to parsimoniously capture patterns in the set of state and structural variables, thereby creating a manageable framework for examining dynamic changes in control systems within a firm (...). Layering life cycle theory onto MCS research could be a fruitful avenue for future research." (Martin 2020, p. 3). This study therefore aims to provide an understanding of the relationship between OLC and MCS design by linking typical MCS characteristics to the complete range of OLC stages (and vice versa).

The contribution of this paper is threefold. First, it identifies what is known about the design of an MCS *in all stages* of the OLC. This is primarily an academic contribution since such a review seems to be lacking in the literature. Second, from a practitioner's perspective, Greiner (1972) notes that it is important for an organization to know what stage it is in, "otherwise the company may not recognize when the time for change has come" (p. 10). This research can help entrepreneurs, CFOs, management accountants, and controllers anticipate important adjustments to their MCS that will be needed when their organization enters a new stage. Third, this study identifies some fruitful areas for further research.

The remainder of this paper is organized as follows. Section 2 deals with the literature that addresses OLC theory and MCS design. In the end, this section introduces two reference models which are used in Section 3 to discuss the relevant management control elements per stage in the OLC. Concluding remarks are made in section 4.

2. Organization life cycle theory and management control systems design

2.1. OLC models

Traditionally, OLC theory assumes that organizations grow sequentially – in a linear pattern – through the

different stages. According to Levie and Lichtenstein (2010), these models view organizations as "if they were organisms" (p. 335). In practice, this is not always the case. Fast-growing organizations can easily end up in a decline stage before having reached the maturity phase, the Lightyear example is a case in point here. Mature organizations can also enter the decline phase without having gone through the revival stage. Most of the OLC literature is nevertheless based on "linear growth models" (Levie and Lichtenstein 2010).

A great many studies on OLC have been carried out over the years (e.g., Greiner 1972; Hanks 1990; Lester et al. 2003; Miller and Friesen 1984; Quinn and Cameron 1983). Although the wording and the number of stages in these studies sometimes vary, the stages in themselves show great similarities. Levie and Lichtenstein (2010) reviewed 104 models and found that most of them consisted of three to five stages. They propose using a five-stage model because the three- and four-stage models do not take into account the decline stage. Both Quinn and Cameron (1983) and Greiner (1972) ignore the existence of a decline stage. Yet, according to Whetten (1987), it is likely that organizations will face decline at some point. To understand the impact of OLC stages on MCS design, it is therefore important to take into account the decline stage as well. It is for these reasons that the five-stage model by Miller and Friesen (1984) was selected as the reference model in this study. It consists of birth, growth, maturity, revival, and decline phases. This selection is in line with recommendations recently made by Martin (2020).

2.2. Management control systems and packages

Malmi and Brown (2008) introduced a broad perspective on Management Control Systems (MCSs) by using traditional accounting, administrative, and cultural controls at different levels of the organization. They point out that MCSs do not operate in isolation; rather, a variety of systems exist in organizations to influence behavior and support decision-making. They further argue that these different systems are not intentionally designed or coordinated, because they are "often introduced by different interest groups at different times" (Malmi and Brown 2008, p. 291). That is why they prefer to refer to an MCS as "a package" instead of a comprehensive "system." It is worthwhile to observe that this paper has led to an interesting discussion that is generally known as the "systems versus package debate", see, e.g., Merchant and Otley (2020). Key in this debate is the question to what extent the elements of an MCS are independent or interdependent. From a systems perspective, an MCS is designed according to a rational, maximizing goal, where different elements are "interdependent and the design choices take these interdependencies into account." (Grabner and Moers 2013, p. 408). The package MCS perspective "represents the complete set of control practices in place, regardless of whether the MC practices are interdependent and/or the design choices take interdependencies into account" (Grabner and Moers 2013). On top of this, some

authors prefer the middle course: “These definitions have been seen as polar opposites, whereas we believe that a more realistic view treats them as defining a spectrum of possible coupling states” (Demartini and Otley 2020). However, it should be noted that our study does not aim to contribute to this “systems versus package debate”.

Instead, we will make use of Malmi and Brown as a *reference management control framework*. Other researchers have used it to avoid the risk of underspecifying the MCS (Dropulić and Rogošić 2014; Lueg and Radlach 2015; O’Grady and Ackroyd 2015; Crama and Corbey 2022). Ploss (2018) based his study of MCS design in start-up companies on it. In his view, this framework is the most concrete, relevant, and useful one compared to any of the others, such as the Levers of Control framework by Simons or the extended PMSs framework by Ferreira and Otley (Ploss 2018, p. 23). Although Ploss (2018) only addresses the MCS design of start-ups, we follow his approach and use the framework of Malmi and Brown as the reference model for our research addressing MCSs in *all* organizational life stages.

Malmi and Brown (2008) distinguish five control elements in their framework: cultural controls, planning controls, cybernetic controls, reward and compensation controls, and administrative controls (see Figure 1).

cultural controls as training can be seen as a way of managing organizational culture” (p. 295).

Planning controls refer to setting goals across the organization. The planning process is important for setting targets, making clear what kind of performance is to be delivered, aligning different goals across the organization, and controlling activities within the organization. It is aimed at directing the behavior of the employees. Malmi and Brown (2008) draw a distinction between long-range planning and action planning here. Long-range planning has a strategic focus and involves setting mid- to long-term organizational objectives. Action planning has a tactical focus and involves setting targets that require “immediate action.”

The cybernetic approach (Anthony 1965) is clearly evident in the above planning controls. *Cybernetic control* can be described as “a process in which a feedback loop is represented by using standards of performance, measuring performance, comparing that performance to standards, feeding back information about unwanted variances in the system, and modifying the system’s compartment” (Green and Welsh 1988, as cited in Malmi and Brown 2008, p. 292). Cybernetic controls are highly similar to the diagnostic control systems (Simons 2000) and results controls (Merchant and Van der Stede 2017).

Reward and compensation systems focus on motivat-

Figure 1. MCS “as a package” (Malmi and Brown 2008, p. 291).

Cultural Controls						
Clans		Values			Symbols	
Planning		Cybernetic Controls				Rewards & compensation
Long Range planning	Action planning	Budgets	Financial Measurement Systems	Non Financial Measurement Systems	Hybrid Measurement Systems	
Administrative Controls						
Governance Structure		Organisation Structure			Policies & Procedures	

Three types of *cultural controls* are distinguished at the top of figure 1: values, symbols, and clans. Values relate to what Simons (2000) refers to as “beliefs systems.” Symbol-based controls occur when organizations create visible expressions, such as typical buildings, workspace design, and dress codes, in order to develop a particular type of culture (Schein 1997). Clan controls build on the presumption that individuals are exposed to a process of socialization. Apart from *cultural controls*, Merchant and Van der Stede (2017) have identified *personnel controls* (such as selection, placement, training) as an independent object of control. Malmi and Brown (2008) follow a different approach: “We include selection (and known selection criteria) under cultural controls. Conversely, placement can be associated with organizational, and occasionally with governance structure. Training can be included in administrative controls, as this typically involves teaching individuals to follow the specified policies and procedures. Training can also be included in

ing and increasing the performance of individuals and groups within organizations by achieving congruence between their goals and activities and those of the organization (Bonner and Sprinkle 2002). Merchant and Van der Stede (2017) view rewards and compensation as results controls. Because of their importance in guiding employee behavior, Malmi and Brown (2008) chose to classify these controls as a separate system in their package.

Administrative control systems are found at the bottom of Figure 1. These systems “direct employee behavior through the organizing of individuals and groups, the monitoring of behavior and who you make employees accountable to for their behavior, and the process of specifying how tasks or behaviors are to be performed or not performed” (Malmi and Brown 2008, p. 293). Three types of administrative controls are distinguished. *Organizational structure* relates to the design of the organization: for instance, the number of hierarchic levels, divisions, and departments. *Governance structure* relates to the way business is conducted:

for example, meeting instructions, reporting guidelines, and the like. *Policies and procedures* are the area of rules, regulations, procedures, and standard operating policies. These administrative control systems are very similar to the “action controls” in Merchant and Van der Stede’s *Objects of Control* (2017) and the “boundary systems” in the *Levers of Control* framework by Simons (1995).

2.3. Approach

A systematic literature review was conducted in order to collect relevant research in the areas of (1) OLC literature, (2) MCS literature, and (3) literature that addresses both OLCs and MCSs. The third area is of course the most relevant one for this paper. Database searches were carried out between November 2019 and January 2021, with Google Scholar (scholar.google.com) serving as the primary source for collecting articles. Per subject, and based on the most important studies regarding OLC and MCSs, the following search terms were identified:

- OLC theory *explicitly* linked to MCSs theory: the search for literature explicitly linking OLC and MCSs was conducted by combining search terms in multiple ways – e.g., organizational life cycle AND management control systems, organizational life cycle AND levers of control, organizational life cycle AND formal control, management control AND start-ups, organizational decline AND MCS, etcetera.
- OLC theory *implicitly* linked to MCSs theory: the search was carried out by focusing on OLC characteristics and MCS – e.g., organizational size AND MCS, organizational structure AND MCS, organizational growth AND MCS, et cetera. Similarly, a search of terms combining OLC theory with elements of MCS was conducted – e.g., OLC AND activity-based costing, OLC AND budgeting, etcetera.

Evaluation of the articles was carried out by reading the abstract. Based on this, the potential relevance was determined. Relevant articles were then read in their entirety. In the end we identified 17 peer-reviewed papers and 1 PhD dissertation that explicitly link OLC and MCS.

3. MCS design per OLC stage

3.1. Birth stage: it is all about *cultural control*

In the birth stage, the organization is small, launching a new idea or product. Typical of new organizations and the launch of new ideas or products is the concept of uncertainty (Davila 2000). In uncertain environments, creativity and innovation are key. The organizational culture is informal; formal structures are almost nonexistent (Hanks 1990); decision-making is centralized; and leadership is based on charisma and enthusiasm. The success of an organization during the birth phase comes from creativity (Hanks 1990).

According to Macintosh and Quattrone (2011), “administrative practices and management systems, such as accurate cost accounting systems, inventory controls, and capital expenditure analysis, are neglected or even disdained” (p. 83) at this point. In their study of MCS design in high-tech start-ups, Samagaio et al. (2018) found similar evidence that start-ups “use simple control mechanisms and few or even no formal MCS” (p. 1).

According to Davila (2005), “in the early stages of an organization, control and coordination happens through frequent and informal interactions” (p. 226). Cultural controls (in particular personnel controls) are implemented in an informal way, with organizational culture being “handed over” to new employees through frequent informal interaction between them and existing employees. Merchant (1982) makes similar remarks in one of his early papers.

Nevertheless, a start-up company usually needs to grow in order to survive. A consequence of growth is the need for more formal MCSs. Lin et al. (2017) show that formal MCSs – such as “operational control systems” – are positively associated with a new business’s performance. Davila and Foster (2005) studied the adoption of MCSs in start-up companies and distinguished the following types of control instruments: operating budgets, cash budgets, variance analysis (comparison of actual versus budgeted performance), operating expenses approval, capital expenditure approval, product profitability analysis, customer profitability analysis, and customer acquisition cost analysis. The authors concluded that budgets (operating and cash) and variance analysis are adopted by young organizations before they implement administrative controls. Budgets, especially cash budgets, are very important for start-up companies in the struggle to survive.

Silvola (2008) draws a similar conclusion at the end of his case study: “...that during the birth stage of an organization, income statement, balance sheet, budget and financial ratios were checked on a monthly basis in order to monitor the financial situation of the firm. Management controls are focused on short-term cash management” (p. 34).

Based on the research discussed above, it can be concluded that cultural controls, especially social norms (clan controls), tone at the top, values, beliefs, and charismatic controls are dominant within early stage organizations. In addition to these “informal” controls, more “formal” controls, such as planning and cybernetic controls, are expected to evolve during the early years of the birth stage. It is important to acknowledge that the focus of reporting and variance analysis seems to be on the financial and short-term cash position of the organization.

3.2. Growth stage: the increasing need for planning and administrative controls

The growth stage is still surrounded with uncertainty. Is the organization able to keep up with the growth; is it able to finance the growth; and is it growing at a pace that will lead to a more mature, stable, and less uncertain

environment? As for growth rates, Miller and Friesen (1984) refer to this stage as one with revenue growth figures above 15% per year.

As organizations grow, organizational structures become more important (Silvola 2008). Indeed, formal administrative systems appear to be necessary for survival (Macintosh and Quattrone 2011), and as decision-making becomes more decentralized, the need for administrative procedures and information processing increases (Miller and Friesen 1984). Despite the fact that new managers will be hired, the owner of the organization is still involved in daily operations, meaning that charismatic control remains an important element of the MCS.

According to Silvola (2008), planning controls such as strategic planning, capital budgeting systems, and operational planning systems become much more relevant in this stage. It should be noted that the adoption of more formal MCSs during the growth stage is not always intrinsically driven. Silvola (2008) points out that some organizations implement more formal MCSs in order to fulfill external investors' needs rather than their own managerial needs. Simons (2000) and Davila and Foster (2005) show that detailed budgeting and variance analysis systems become present. These systems are mainly focused on profit and other *financial* measures.

Business conduct boundaries – and with this more administrative controls – are on the verge of emerging. In his case study of MCSs in fast-growing organizations, Sandelin (2008) found the existence of pre-action reviews, standard operating procedures, and formal approval policies at this stage. Su et al. (2013) show that during the growth stage, the number of controls increase as compared to the birth stage. The first incentive schemes evolve (Davila 2005). The most important types of controls in this stage are, however, behavioral controls that limit the tasks, roles, and responsibilities of employees. This finding is in line with Simons (2000), who mentions that boundary controls become more important as decision-making starts to be carried out at “lower” levels in the organization.

That said, culture remains important in the growth stage. Values (Simons 2000) start to become formalized through mission and vision statements, in contrast to the birth stage, where they were communicated in an informal manner. Cultural controls, such as personnel controls in terms of selection, placement, and training (Su et al. 2013), become more important as more employees are hired during the growth stage. Workspace design – in this case, the open-plan office – was key in encouraging “culture driven behavior”, according to the case study by Sandelin (2008, p. 329). Sandelin further argues that this workspace design stimulates peer control, which can be interpreted as a form of clan control (social norms). In their study of family-owned businesses, Moores and Mula (2000) found similar evidence that during the growth stage, clan controls are considered important.

To summarize, the growth stage is characterized by an increase in the number of planning and administrative

controls (and thus a higher degree of formalization). Cultural controls are still important, but they become more formalized in mission and vision statements. Cybernetic controls enter the scene, and there is an increase in administrative controls such as policies and procedures.

3.3. Maturity stage: control versus flexibility

Organizations reach the maturity stage when double digit growth rates start to decline. Size and structure now become important contextual variables, according to Chenhall (2003). The need to institute controls such as “rules, documentation, specialization of roles and functions, extended hierarchies and greater decentralization down hierarchical structures” (Chenhall 2003, p. 148) is increasing. Bureaucracy enters the organization, as confirmed by the results of a study by Auzair (2010) that found evidence that mass service organizations in the mature stage of their life cycle place a greater emphasis on a more bureaucratic MCS than professional service organizations in the growth stage of their life cycle.

Quinn and Cameron (1983) refer to this stage as the “formalization and control stage.” Flexibility has become less important compared to control; systems are developed to reduce risk-seeking behavior; and formal information and communication systems become dominant (Quinn and Cameron 1983). The primary focus of the organization is now on efficiency rather than achieving growth figures and innovation (Miller and Friesen 1984). Cost accounting systems, standards, and nonfinancial information also become increasingly important (Macintosh and Quattrone 2011). These are all typical cybernetic controls. In addition to this, Phan et al. (2014) and Kallunki and Silvola (2008) have found evidence that mature organizations use more sophisticated costing systems, such as activity-based costing, to a greater extent than organizations in the birth or growth stage. Moreover, planning, target setting, and performance evaluation (rewards and compensation) are considered very important control instruments within mature organizations.

To make sure that departments and employees act in a manner that is congruent with the organization's objectives, operating procedures and the use of measurement systems (financial and nonfinancial measures) start to become even more important, including customer and product profitability analyses and expense monitoring (Davila and Foster 2005). According to Su et al. (2013; 2015b), organizations in the maturity stage heavily use administrative controls alongside output controls such as budgets. Since innovation and flexibility have become less relevant, the amount of routine work based on job descriptions, rules, and policies increases. “Employees in maturity stage organizations are given specific tasks with adequate information regarding how to get their jobs done” (Su et al. 2015b, p. 31), therefore the need for training is lower, as opposed to the growth stage. However, job design (and job descriptions) become more important. Furthermore, Su et al. (2013) argue that the focus on

strategic planning becomes less important compared to the growth stage.

Cultural controls, such as clan controls, also become less important (Davila 2005; Moores and Mula 2000) in mature and stable organizations. Values and beliefs are no longer only informally communicated by the leaders of the organization but codified in mission and vision statements together with a formal written code of conduct.

In summary, during the maturity stage, an organization reaches its most bureaucratic form, in which administrative controls and (cybernetic) measurement systems are dominant. In contrast to organizations in the growth stage, planning controls largely consist of action planning rather than strategic planning. In order to motivate employees, sophisticated forms of target setting and bonus systems are put into place. Controls applied during the maturity stage seem to be very bureaucratic, tight, and restrictive.

3.4. Revival stage: back to the beginning

Organizations in the revival stage want to renew themselves; they want to return to the more entrepreneurial times of their birth and growth stages. They also want to lose their bureaucratic structures and focus on innovation. While the revival stage has some characteristics that are comparable to the growth stage, there is more professionalism present when it comes to structures, rules, and routines. Innovation rather than conservatism does become key again, though.

Coming out of the mature stage, in which the MCS is characterized as formal and bureaucratic and where inertia has entered the organization, the organization becomes more entrepreneurial again in the revival stage. Morris et al. (2006) found evidence that informal and less bureaucratic forms of control are positively related to higher levels of entrepreneurship. In line with this, Su et al. (2015b) argue that “behavior controls restrict employees’ creativity and innovation” (p. 32). The need for a lower level of bureaucracy will eventually lead to less administrative controls. This, however, does not imply that there is *no room at all* for such controls anymore. Because of the size of the organization in the revival stage, which is “very large” according to Miller and Friesen (1984), it is to be expected that some administrative controls – such as segregation of duties, internal control policies, and standard operating procedures – will remain in place.

Since organizations in the revival stage want to “reinvent” themselves, they seek for ways to be more innovative again. An example of an organization that struggled with the fact that it had grown too big was Hewlett Packard (HP) during the late nineties. HP wanted to reinvent itself, which was aptly announced in a commercial by CEO Carly Fiorina: “The company of Bill Hewlett and Dave Packard is being reinvented: The original start-up will act like one again” (Collins 2009).

Similar to the growth stage, a high emphasis on strategic planning, operational planning, and CAPEX planning systems is crucial. However, in contrast to the growth

stage, there is much more focus on formal control systems to improve operational efficiency (Silvola 2008). Silvola (2008) argues that this has to do with the fact that management attention during the growth stage goes toward achieving sales growth, whereas management attention during the revival stage is primarily focused on growing profit. This explains why Phan et al. (2014) and Kallunki and Silvola (2008) found evidence that both mature organizations and organizations in the revival stage use activity-based costing methods to a greater extent than organizations in the birth or growth stage.

In sum, the revival stage shares some similar dynamics to the growth stage with vital differences. Because there is a strong shared belief, cultural controls are once again important. Yet, while this shared belief system remains a recipe for success, factors such as size and external investors make more formal systems still inevitable.

3.5. Decline stage: how do the mighty fall?

There is only limited literature available on the use of MCSs during a stage of decline. Su et al. (2013, 2015a, 2015b) suggest that this may be due to a lack of willingness on the part of such organizations to cooperate in scientific MCS research (where they would be labelled as “declining”).

According to Miller and Friesen (1984), organizations in the decline stage are still as large as those at the maturity or revival stages. A big difference, however, is that sales figures are deteriorating. The focus is internal rather than external, resulting in lower market shares and a lack of innovation. The primary focus is on cost control rather than improving margins. Su et al. (2015b) discuss an example of a declining business unit and list as its key characteristics (1) that it is highly centralized, and as a result, (2) there is little delegation to employees, (3) decision-making is carried out by top management only, and (4) there is no strategic planning.

An organization facing economic and market-related pressure should have a proper and well-designed MCS in place. Chowdhury (2009) shows that management control measures can effectively prevent organizations from going out of business. The type of measures needed to achieve a turnaround depend on the cause of the downturn, whereby Chowdhury distinguishes two types of decline:

- K-extinction: The decline is a result of macroeconomic factors and a “property of the environment.”
- R-extinction: The decline is a result of internal factors and a “property of the organization.”

Different control measures should be taken for each type of decline to prevent an organizational tragedy. Decline as a result of macroeconomic factors requires a more strategic turnaround response, whereas an organization in decline due to internal factors needs to critically review its structure, procedures, and policies – and in this sense, perhaps redesign its MCS. According to Collins (2009), a thorough understanding of the business through

quantitative analysis, facts, and figures; a strong focus on performance; and disciplined executives can help reverse an organization's downward spiral. However, independent of the root cause, strong leadership and an emphasis on the organizational culture are necessary.

Based on the limited literature available on the design of an MCS at an organization in decline stage, it can be argued in general that because of the internal, formal, and bureaucratic focus, administrative controls seem to be predominant. The application of these types of controls is probably very comparable to that in an organization in the maturity stage. Even the lower emphasis on cultural controls will be comparable to the maturity stage. The biggest differences will be the absence of strategic planning, a primary focus on cost reduction rather than profit enhancement, and a very short-term-oriented and action-based management style.

4. Concluding remarks

This section discusses the practical relevance of this research, its limitations, and suggestions for further research.

4.1. Challenges for practice

Greiner (1972) emphasizes that organizations have an interest in ascertaining what stage they are in and asking themselves if (and when) they should expect a transition to the next stage. Here, the control function (in particular the CFO) in the organization faces different kinds of challenges at each stage.

It was noted earlier that organizations in the birth stage have an aversion to planning and administrative controls. They are sometimes even spoken of with disdain, see Macintosh and Quattrone (2011, p. 83). This is a risk. The CFO will have to convince the charismatic leader that his successful organization cannot avoid implementing some (according to the leader, “bureaucratic”) administrative controls. Consider here, for example, operating and cash budgets to avoid future liquidity problems. If this persuasion fails, one should expect problems sooner or later. Tuzzolino and Armandi (1982, p. 260) note in this regard that individual personalities will have an unusually strong influence on corporate outcomes during the birth phase, an “imprinting” which may in turn be an important constraint on later development.

The growth phase presents similar challenges to the CFO. Administrative controls are indispensable here, but the charismatic leader must now also be convinced to decentralize decision rights. This is difficult for charismatic leaders. Successful decentralization requires the introduction of cybernetic controls, like, e.g., a planning and control cycle. This may be perceived as even more “bureaucracy” in the eyes of the leader.

In the maturity and decline phases, we see an opposite challenge. The risk in these phases is (the emergence of) an abundance of administrative controls, a phenomenon

aply described by Lewis and Churchill (1983) as “ossification”. Here, the CFO will have to make an effort to actually slow down or even reduce the use of administrative controls in favor of renewed cultural control. If this succeeds, then the organization can successfully migrate to the revival stage. If this fails, the decline stage looms on the horizon...

4.2. Limitations and further research

The results of this study must be interpreted in light of its limitations. First, this research is based upon our *interpretation* of the existing peer-reviewed literature. Second, there is no such thing as a one-size-fits-all MCS. This research relates OLC theory to MCS design, and OLC models take roughly only two factors into account: age and size. The contingency theory, however, argues that there are a number of other contextual factors that are relevant when it comes to MCS design, such as the external environment, technological field, external investors, national culture, multi-nationality, strategy, type of products and services, and degree of innovation (Bisbe and Otley 2004; Chenhall 2003; Langfield-Smith 1997). Third, this research presumes – based on prior research – that organizations grow sequentially over time through the different stages. Some researchers suggest that this is not always the case.

We see several opportunities for further research, given that the literature on the relationship between OLC and MCS design is so scarce. We concluded in the above that this is in particular the case when it comes to the MCS of *organizations in decline*. There is certainly room for fruitful further research here. This is also observed by Merchant and Otley (2020) when they discuss new directions in MCS field research: “Also, more valuable than studies of average practice are those of failures. Researchers and practitioners alike can learn from failures, although gaining access to study these settings can be difficult. Managers generally do not like to talk about their failures, and at the extreme the failed organization may no longer exist” (Merchant and Otley 2020, p. 5). That said, we also see research opportunities in organizations that successfully managed to survive their revival stage. Is it, for instance, indeed the case that cultural control has been revitalized in these (still large) organizations? What about the suggested need for a reduction in administrative controls?

Furthermore, we also see research opportunities in the earlier stages of the OLC. Most of the (case) studies currently available deal with MCS design during the birth and growth stages. Quantitative field studies could make their findings more robust. Turning to longitudinal empirical research, we refer to Martin (2020) who suggests that one straightforward way to study the evolving nature of control systems would be to engage in a longitudinal field study of a single firm. Admittedly, this is a time consuming (and costly) research method, but she also suggests some clever approaches to make this research more efficient by, e.g., utilizing a survey that generates repeated

observations within a firm over time. “This approach allows for time-series analysis that informs changes in control practices and organizational characteristics”

(Martin 2020). In particular, we see room for longitudinal research in organizations that (will) migrate from the maturity stage to either the revival stage or the decline stage.

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