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ABSTRACT

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Abstract

A high degree of management control and innovation have traditionally been regarded as incompatible. Yet, the possibility of creating such a combination continues to allure organizations and, indeed, some have succeeded in the very task many organizational theorists deemed impossible. (See Davila et al. 2009; Pfister & Lukka 2019.) Some argue that enabling formalization (Adler & Borys 1996) plays a significant role in this so-called control and innovation dilemma (Adler & Chen 2011). However, the ultimate meaning of the seminal work of Adler and Borys (1996) has remained vague and has led to a multitude of different interpretations (see Hoy & Sweetland 2000; Chapman & Kihn 2009; Henttu-Aho 2016; Ståhlberg 2018; Janka 2019).

Employing conceptual analysis, this thesis strives to clarify the concept of enabling and coercive formalization, its terminology and analyze its theoretical and conceptual foundations, suitability and applicability in the context of management control and the control and innovation dilemma. The thesis follows, to the extent necessary, the methodological guidelines and framework developed by Puusa (2008). In order to provide a framework for comparing the concept of enabling and coercive formalization with the established knowledge in management accounting, the typology of four management controls by Merchant and Van der Stede (2007) was utilized.

It is concluded that enabling formalization has much potential in solving the dilemma, but the theoretical constituents of enabling and coercive formalization should be revised. It became apparent that enabling and coercive formalization could not be constrained to any single control type while also reliably maintaining all of the intended benefits. Instead, the concept seems to correlate more strongly with complete management control systems. Furthermore, the use of the term 'formalization' in the context of highly informal and indirect management controls was found to be theoretically and conceptually problematic. In order to resolve these issues and to improve conceptual clarity, this research recommends that the concept should be subdivided into social and behavioral aspects and technical and design aspects, which relate to either the organization's culture or formalization. In this revised framework (see p. 59, 61), the more formal and direct controls relate to enabling and coercive formalization, whereas the more informal and indirect controls relate to a culture of enablement, or alternatively to a culture of coercion, and the two components together – the formal and the informal – form either an enabling or a coercive bureaucracy.

Key words	Enabling, coercive, formalization, management control, innovation
Further information	

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Tiivistelmä

Muodollista johdon ohjausta ja innovaatiota on perinteisesti pidetty yhteen sopimattomina. Liian muodollinen ohjaus tukahduttaa innovatiivisuutta, kun taas liian löyhä ohjaus voi johtaa resurssien väärinkäyttöön ja tehokkuusongelmiin. (Davila et al. 2009.) Tähän niin kutsuttuun kontrollin ja innovaation dilemmaan on etsitty ratkaisua Adlerin ja Borysin (1996) tunnetusta mahdollistavan ja pakottavan formalisaation jaottelusta (Adler & Chen 2011). Potentiaalistaan huolimatta kyseistä artikkelia pidetään kuitenkin hyvin vaikeaselkoisena, ja tuloksena onkin syntynyt useita toisistaan eroavia tulkintoja (ks. Hoy & Sweetland 2000; Chapman & Kihn 2009; Henttu-Aho 2016; Ståhlberg 2018; Janka 2019).

Tämä tutkielma on käsiteanalyysi, jonka tarkoituksena on selkeyttää Adlerin ja Borysin (1996) mahdollistavan ja pakottavan formalisaation käsitejaottelun terminologiaa sekä analysoida sen potentiaalia ja yhteensopivuutta johdon ohjausjärjestelmien ja kontrollin ja innovaation dilemman kanssa. Tutkielma hyödyntää pääsääntöisesti Puusan (2008) kehittelemää metodologista viitekehystä. Selkeämmän rakenteen luomiseksi tutkielmassa on päädytty hyödyntämään Merchantin ja Van der Stede (2007) neljän ohjaustyypin jaottelua.

Tutkielman tulosten perusteella voidaan todeta, että mahdollistavalla formalisaatiolla on potentiaalia kontrollin ja innovaation dilemman ratkaisemiseksi, mutta Adlerin ja Borysin (1996) käsitejaottelua ja terminologiaa tulisi kehittää ja selkeyttää. Tutkielman tuloksista voidaan päätellä, että mahdollistavaa ja pakottavaa formalisaatiota ei voida selkeästi jaotella yksittäisiksi ohjaustyypeiksi, vaan ne muodostuvat eri ohjaustyyppien yhteisvaikutuksesta. Lisäksi termin ’formalisaatio’ käyttö kuvailtaessa hyvinkin epäsuoria ja epämuodollisia ohjaustyyppejä osoittautui ongelmalliseksi. Käsitteiden selkeyden parantamiseksi tutkielma päätyy suosittelemaan mahdollistavan ja pakottavan formalisaation käsitejaottelun osittamista sosiaalisiin ja kulttuurillisiin sekä teknisiin ja rakenteellisiin näkökulmiin, jotka puolestaan viittaavat enemmän joko organisaation kulttuuriin tai muodollisuuteen. Uudessa viitekehyksessä (ks. s. 59, 61) suoremmat ja muodollisemmat ohjaustyypit on luokiteltu mahdollistavaksi tai pakottavaksi formalisaatioksi, kun taas epäsuoremmat ja epämuodollisemmat ohjaustyypit on luokiteltu mahdollistavaksi tai pakottavaksi kulttuuriksi. Kulttuuri ja formalisaatio yhdessä muodostavat joko mahdollistavan tai pakottavan byrokratian.

Avainsanat	Mahdollistava, pakottava, formalisaatio, johdon ohjaus, innovaatio
Muita tietoja	

UNIVERSITY OF TURKU
Turku School of Economics

HOW TO MAKE SENSE OF ENABLING VS. COERCIVE FORMALIZATION?

Master´s Thesis
in Accounting and Finance

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The originality of this thesis has been checked in accordance with the University of Turku quality assurance system using the Turnitin OriginalityCheck service.

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1 INTRODUCTION

1.1 Background

> *"It is horrible to think that the world could one day be filled with nothing but those little cogs, little men clinging to little jobs and striving towards bigger ones - a state of affairs which is to be seen once more, as in the Egyptian records, playing an ever-increasing part in the spirit of our present administrative system, and especially of its offspring, the students. This passion for bureaucracy ... is enough to drive one to despair. It is as if in politics ... we were deliberately to become men who need "order" and nothing but order, become nervous and cowardly if for one moment this order wavers, and helpless if they are torn away from their total incorporation in it. That the world should know no men but these: it is such an evolution that we are already caught up, and the great question is, therefore, not how we can promote and hasten it, but what can we oppose to this machinery in order to keep a portion of mankind free from this parceling-out of the soul, from this supreme mastery of the bureaucratic way of life." –Max Weber*[1]

Such was the contemporary view of bureaucracy one hundred years ago – a machine-like leviathan designed to meticulously churn rules and procedures at the cost of results and, in the process, chew up anyone stuck between its gears. This view is still prevalent over a hundred years later, and the quote is made ever more powerful by the fact that it was cried out in sorrow by the very man responsible for popularizing the ideology, namely Max Weber. Bureaucracy is seen as a management style riddled with unnecessary hierarchy, blind devotion to rules and rigorous procedures, rigidness and the death to innovation and all freedom to deviate from standards (Wren & Bedeian 2009, 232). According to different studies, employees associate it with feelings of alienation (Bonjean & Grimes 1970), physical and psychological stress (Rousseau 1978), powerlessness (Kakabadse 1986) and a lack of job satisfaction (Arches 1991).

Yet, this was not its original intention. The hopes and dreams of Weber were for bureaucracy to become the ideal, superior administrative system. It was to be the most rational, stable, reliable, calculative and efficient way to manage and control an organization. (Wren & Bedeian 2009, 229-233.) Unfortunately, human beings as a species often lack these properties. It may be that, due to our inherent nature, the ideal bureaucracy will always be destined for failure.

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[1] Translated and quoted in Mayer (1943, 127-128). The remarks of Weber were made during a debate at a convention of the Verein für Sozialpolitik in 1909.

Organizations can be roughly divided into two categories: mechanistic and organic. If simplified, mechanistic organizations are bureaucracies, and organic organization are, in essence, the opposite of a bureaucracy. A common conception is that a mechanistic organization cannot function in an organic environment and vice versa. Both organizational models can function efficiently, but only in their respective environment. While a mechanistic environment is stable, an organic environment is one that is under constant threat of change, thus requiring flexibility and innovation (Burns & Stalker 1961.)

It has been commonly accepted that innovation cannot truly exist in a mechanistic bureaucracy (Adler & Chen 2011). Creativity and innovation are fostered through intrinsic motivation, freedom, challenges, support, resources and encouragement (Amabile 1998). These conditions are much more prominent with less control, leaning more towards an organic organization in the organizational dichotomy (Adler & Chen 2011). Mechanistic bureaucracies are simply too rigid and strict to foster an environment suitable for flexible and innovative solutions.

The message conveyed by previous literature seems loud and clear: bureaucracies cannot succeed in a flexible, fast-paced environment and they do not support innovation. Yet, some bureaucratic organizations have succeeded in the very things many organizational theorists attempt to prove impossible (see Adler & Borys 1996; Adler et al. 1999; Pfister & Lukka 2019). There are organizations that succeed in maintaining a hierarchy of authority, a division of labor, objective standards and rules and procedures – the characteristics inherent to a bureaucracy – while still attaining the flexibility and efficiency of an organic organization. These bureaucratic structures seem to instill minimal amounts of resentment or resistance. Some would even argue that the time of such strict divisions, as devised by Burns and Stalker (1961), is a thing of the past. The world has become a hypercompetitive environment, forcing all organizations to become simultaneously flexible and efficient simply to survive. (Adler et al. 1999.)

In fact, there is an increasing number of studies calling into question the presumptions of previous literature (see Adler & Borys 1996; Adler et al. 1999; Hoy & Sweetland 2000; Wouters & Wilderom 2008; Adler & Chen 2011; Janka 2019). One particularly prominent theory is by Adler and Borys (1996) (from here on A&B). They argue that high levels of formalization can coexist with innovation and even enhance it, depending on the *type* of formalization. In this case, formalization is the written rules and procedures used by an organization. They coined two different types of formalization as 'coercive' and 'enabling', coercive resembling a mechanistic and enabling an organic type of organization. One of their main arguments is that, with a high level of enabling formalization, an organization becomes an 'enabling bureaucracy', able to simultaneously obtain a high degree of efficiency and flexibility. (Adler & Borys 1996; Adler et al. 1999.)

It would seem that not all forms of control are coercive and not all bureaucracies are 'evil'. Perhaps Weber's dream may yet become reality. Perhaps A&B have succeeded in

shattering century-old superstitions and presumptions. Then again, perhaps not, for theoretical concepts are never as simple as they seem and this one is no exception.

The concept presented by A&B is considered to have significant implications for management accounting research and the innovation and control dilemma, but the ultimate meaning of enabling and coercive formalization seems to divide opinions. Some see it as a difference in leadership styles, some as a difference in the perceived intention of the control and others as design characteristics in organizational systems and processes (see Hoy & Sweetland 2000; Chapman & Kihn 2009; Henttu-Aho 2016; Krause et al. 2017; Janka 2019).

Furthermore, there appear to be several issues and discrepancies with the theory by A&B and subsequent studies stemming from it, particularly in the context of management accounting. For example, Ahrens and Chapman (2004) pointed out that most organizations contain both coercive and enabling controls, and in many cases employees do not consider the coercive controls as actually coercive (see Krause et al. 2017; Pfister & Lukka 2019; Janka 2019). Informal controls, like cultural and clan controls, seem to have a comparatively stronger influence on the coercion or enablement of a management control (MC) as a whole compared to more formal controls (Janka 2019), and yet, at first glance, these controls do not seem fit the original intention of A&B.

The discrepancies above have not been addressed by A&B, leaving the concept of enabling bureaucracy strikingly vague, to the point of equivocation. With that being said, the article is considered a seminal work and has sparked numerous different studies in not only management accounting (see Ahrens & Chapman 2004; Wouters & Wilderom 2008; Jørgensen & Messner 2009; Janka 2019) but also in a wide variety of other sciences, such as information systems, leadership and sociology (see Hoy & Sweetland 2000; Chapman & Kihn 2009). Unfortunately, the amount of conceptual analysis on the concept of enabling and coercive formalization leaves much to be desired. An over 20 years old seminal article, cited in a wide variety of sciences, should not escape critical evaluation of its theoretical foundations for so long. Therefore, a conceptual analysis is not only appropriate, it is necessary.

1.2 Objectives of the thesis

This thesis aims to clarify terminology used in management accounting literature concerning discussion surrounding the control and innovation dilemma. The concept chosen for closer inspection is ‘enabling and coercive formalization’, described in the A&B article *Two types of bureaucracy: Enabling and coercive* from 1996. The objective is to analyze critically the terminology used in the article and in studies stemming from it. The thesis will then test the theoretical foundations and applicability of the concept in the

context of management accounting by examining it through four forms of control: results, action, personnel and culture control, presented in the Merchant and Van der Stede (2007) book *Management control systems*. Finally, the thesis will contemplate what implications the results of this analysis have on the control and innovation dilemma, and ultimately, how well the concept tolerates closer inspection of its theoretical foundations.

The book by Merchant and Van der Stede (2007) has been chosen because it is an established and widely cited source, and the definitions between different types of control are considered very clear, easily understood and easily distinguished from one another. The concept of enabling and coercive formalization has specifically been chosen because it is an influential, well-known and often cited concept, but due to some conceptual vagueness in the article, its terminology and the research derived from it, there is a lack of conciseness and clarity.

This thesis will analyze and clarify what is meant with the terms 'formalization', 'enabling' and 'coercive', what characteristics those terms contain and do not contain, how they relate to each other, what can be said about related concepts and how the whole concept relates to the four forms of control. The aim of the analysis is to uncover under what presumptions different forms of control could be considered coercive or enabling, and what implications the analysis and its results have on the control and innovation dilemma.

The research questions of the thesis are as follows:

- What is meant with 'enabling and coercive formalization' and how does it relate to the four forms of management control by Merchant and Van der Stede (2007)?
- What implications do the results of the first question have on the discussion surrounding control and innovation?

In this global era, many organizations tend to find themselves needing to reach ever-higher levels of control and innovation to keep up with the competition. They are in pursuit of ambidexterity, to be able to maintain simultaneously organizational flexibility and efficiency (Adler et al. 1999.) There is much left to be discovered as organizations and researchers alike are still struggling to understand the underlying conditions of combining control and innovation. The contributions of this research includes clarifying a well-known but poorly understood concept that has much potential in answering some of the issues surrounding MC and innovation. A clear, concise concept has also the potential of granting new insights into how to design and implement MCs and management control systems (MCS) in general. Furthermore, the results of this thesis may be of benefit to future empirical studies utilizing the concept.

1.3 Research methodology

The research will be conducted as a conceptual analysis. It is a systematic analysis of the chosen concepts, their origin, characteristics, different meanings and their relations to other, related concepts. Conceptual analysis is useful for mapping out a more defined, thorough description of the concepts in question. It allows researchers to discuss accurately and congruently the same subject, enhancing the overall quality of their communication and research. (Puusa 2008.) Conceptual analysis can be used either as a research methodology on its own or as a tool in aiding other methodologies. The result could be a completely new concept, a refinement of a previous concept or even a completely new network of concepts. (Näsi 1980.)

In general, the need for conceptual analysis stems from language, expressions and culture. Language is not only a means of communication but also a tool for expressing oneself and one's thoughts. Concepts are given meaning through differences in culture, historical influences and the nuances of each individual's personality. Each time they are viewed through a unique lens, and portraying an abstraction of the reality from within ourselves. In sciences, however, there is a need for explicitness. A researcher bases all of his or her arguments and propositions on these concepts. (Puusa 2008.)

Much of the credibility and validation of a research depends on how thoroughly the researcher has analyzed used concepts and how well they understand the meanings behind them. A strong conceptual foundation is the basis for a well-structured, coherent research. (Puusa 2008.) This cohesion will also increase the likelihood of clear and concise communication between different researchers because the original author's interpretations of the concepts are explicitly expressed. It could be argued that a concept is a researcher's most important tool.

The lack of clarity in management accounting and organizational research is partly due to a lack of conducted conceptual analyses (Puusa 2008). A thorough conceptual analysis is a mandatory step in reaching good research ethics (Näsi 1980) and should be considered, at least when used in unison with other research methodologies, a mandatory step in every research conducted (Näsi 1983). There is an apparent need for more studies conducted as a conceptual analysis.

Conceptual analysis was popularized by John Wilson's model in the 1960s for the use of nursing, and has since been implemented and modified by others to suit other sciences. Depicted in Figure 1 below, the eight-step model by Puusa (2008) is specifically suited for the analysis of business administration terminology.

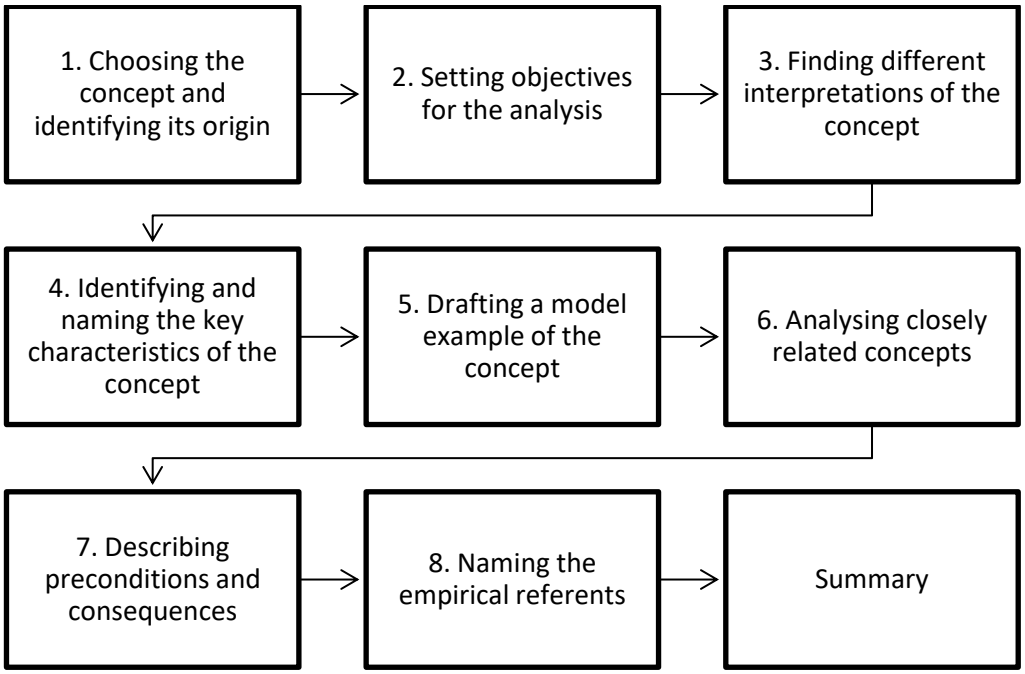

Figure 1 Conceptual analysis process (Puusa 2008)

The process starts with identifying and choosing a concept for closer analysis. It should be relevant, interesting and well-motivated. The next phase involves describing the purpose of the analysis and setting the objectives for it. The third phase is finding different interpretations of the chosen concept. The purpose is for the researcher to map out and describe as thoroughly as possible, through examples, how the concept is used. This phase is generally done through a literature review. The fourth phase expands on the third phase by identifying and naming the key characteristics that were present in the literature review. The key characteristics chosen should be present in the literature more often than other characteristics. Naming them will help maintain them separate from any possible related concepts. (Puusa 2008.)

In the fifth phase, the researcher drafts a model example of the concept. The purpose of this phase is to present an example case of how the concept would ideally be used in practice, containing all of the key characteristics identified in the previous phase. In the sixth phase, the researcher explores different fringe cases and compares the concept with any possible related concepts. The researcher can present examples of how the concept has been misused or how other researchers are using related concepts in its place. In the seventh phase, the researcher describes the preconditions and consequences of the concept. They both have to be separate and recognizable from the key characteristics of the concept itself. Doing this part of the analysis will help the researcher understand the backgrounds of the concept and discover previously unknown relations between characteristics. In the last phase, the researcher names empirical referents for the key characteristics of the concept. This essentially means categorizing them as concrete phenomena and attempting to prove that those characteristics also exist in the real world. (Puusa 2008.)

The thesis will attempt to utilize the framework above to an extent that fits the purpose here. The first two phases of the conceptual analysis framework have already been addressed; a concept has been chosen and objectives have been set. However, it should be noted that while these phases are depicted as being separate, they are actually partially overlapping with one another, and research often does not follow the exact same sequence (Puusa 2008). Analysis in one step of the process may naturally lead to new realizations and a need for elaboration and refinement in other steps of the process (Näsi 1980).

1.4 Structure of the thesis

After the introduction, the second chapter presents the background literature to the concept of enabling and coercive formalization. The intention is to provide the reader with some insight into organizational theory and the scientific advances working as precursors for the concept of enabling and coercive formalization. The second chapter continues with the definition and characteristics of formalization with the intention of familiarizing the reader with the underlying concept. Lastly, the second chapter begins the reviewing, analyzing and defining of the characteristics of enabling and coercive formalization based on different interpretations and definitions. It draws some conclusions on how to interpret the concept as a whole, without taking into consideration its implications for MC.

The third chapter provides the reader with some basic knowledge of the control and innovation dilemma and its background. It begins by defining innovation and exploring its antecedents. After that, it provides a short summary of the background history on the concept of MC and how it is defined by Merchant and Van der Stede (2007). Lastly, the chapter briefly introduces the control and innovation dilemma.

The fourth chapter is a comparison of the four MC types by Merchant and Van der Stede (2007) and the concept of enabling and coercive formalization. The intention of the chapter is first to discover how the definition of MC by Merchant and Van der Stede (2007) correlates with the concept of enabling and coercive formalization, and then analyze the circumstances under which the different MC types could be considered coercive or enabling formalization. Lastly, the results of the analysis are summarized.

The fifth and final chapter of the thesis, following the guidelines of the framework by Puusa (2008), delves into analyzing closely related concepts, preconditions and consequences. It compares interpretations from different empirical studies with the results of the analysis and draws conclusions. Furthermore, it contemplates how enabling and coercive formalization relates to the control and innovation dilemma, based on the results of the initial analysis. Finally, it presents solutions and conclusions based on the discoveries made and summarizes the thesis.

2 ENABLING AND COERCIVE FORMALIZATION

2.1 Background to the concept

The framework for enabling and coercive formalization has its background in organizational theory. Organizational theory concentrates on developing conceptual tools and methodologies suitable for systematically dealing with the inevitable variations between organizations (Pugh et al. 1968). Much of the modern organizational theorization has had its roots and foundations set by Weber in his theory of bureaucracy, which is arguably one of the most influential pieces of organizational theory (Weber et al. 1947).

Bureaucracy does not have a single, definitive definition, as it has become through time a considerably multifaceted concept, although, some similarities can be drawn between all of the different interpretations. Oxford dictionary (Lexico.com) defines it as an 'excessively complicated administrative procedure', highlighting the often-negative connotations the term has. It does reflect, however, the basic characteristics of high formalization, institutionalization, hierarchy and centralization, often associated with the so-called 'traditional' definition of bureaucracy.

A common, contemporary view of traditional bureaucracy is that it is an inflexible, inefficient method of governing an organization. Such was, however, not the original intention, as devised by Weber. He saw bureaucracy as the ideal form of administrative organization. (Wren & Bedeian 2008, 229.) It grew out of the desire to find a solution for the nepotism, cruelty, subjective judgement and subjugation that had remained rampant in managerial practices already from the early days of the Industrial Revolution (Bennis 1966). Purely technically speaking, bureaucracy was, in ideal situations, able to attain the highest form of efficiency in the most rational way. It supposedly enabled organizations to have superior precision, discipline and reliability necessary to orchestrate large-scale business operations. (Wren & Bedeian 2008, 229-233.)

The advantages envisioned by Weber were many: efficiency through a division of labor and formal rules and controls, a clear chain of command with positions and offices organized though a hierarchy of authority. He also hoped for promotion and employment to be formal selection processes based on technical qualifications and career orientation instead of superficial properties and, finally, the dissolving of personal preferences by applying rules and controls impersonally. (Wren & Bedeian 2008, 229-233.)

Unfortunately, the emphasis on rules and controls had the consequence of them often becoming ends in themselves. The same devotion also caused blind repeating of the same actions without any afterthought. The specification of minimal accepted behavior caused apathy by specifying how little employees can work and still stay employed. The division

of responsibilities through a hierarchy of authority had the side effect of pitting different departments against each other. (Wren & Bedeian 2008, 229-233.)

Weber discussed two different sources of authority as the driving factors in the legitimization and institutionalization of a bureaucracy. The first one is the rational view. A rational bureaucracy is a formal organization that announces and pursues its objectives with coordinated effort. Among other things, a rational bureaucracy operates under a hierarchical authority structure, has a specialized administrative staff chosen solely based on technical qualifications, has differentiated rewards according to office and administrative acts, decisions, and has its rules legitimized through writing. Authority comes from the legally defined office. This is the so-called "Weberian ideal" type of a bureaucracy. (Udy 1959.) Weber notes that these types of bureaucracies are quite rare. In fact, he thought that a perfect example of an ideal bureaucracy did not exist. As such, the model developed by him was hypothetical and not meant to correspond to reality. (Wren & Bedeian 2008, 229-233.)

The other source of authority is charisma, deriving legitimacy either through a hereditary line or by attaching the charisma not to a person but to the office itself. An often used example of the former is a monarchy and of the latter the Catholic Church. The defining difference between these two types of bureaucracies is that there is no necessary need for rationality and consistency in the charismatic bureaucracy. (Constas 1958.)

Although hypothetical by nature, Weber's legacy lives on, as bureaucracy remains a dominating form of administrative organization and a much-debated topic among organizational theorists. Weber, however, is considered somewhat ambiguous in his analysis regarding the attitudinal effects of bureaucracy. This ambiguity left much for debate and, through the course of time, evolved into two distinct branches of research: one focusing on the enforcement of compliance and the other focusing on the technical efficiency of bureaucracy. These two branches of research are described as the negative and the positive view. The negative view essentially describes organizations as 'mechanistic' machines that disregard the attitudes of its employees, leading to alienation, stress and lack of job satisfaction. Rules and procedures substitute for the intrinsic motivation and encouragement of employees. The positive view has an opposite approach. Efficient bureaucracy can be used to facilitate employees' own goals, encourage cooperation and alleviate feeling of alienation and role ambiguity. (Adler & Borys 1996.)

The control models in organizations are traditionally divided, following the theories of Burns and Stalker (1961), either into organic or mechanistic. Mechanistic organizations are known to have a strict, bureaucratic, hierarchical structure with a forceful and simple MCS. Instructions and information flow downwards, operations are controlled by supervisors and tasks begin with the issuing of clear commands. Organic organizations, on the other hand, are characterized by a less formal, diffused structure. Information flows back and forth between the different departments, and communication is relaxed. The

departments do not get strict commands and instead have significantly more power to make their own decisions. (Macintosh 1985, 114-115.)

A&B noted a strong contradiction stemming from the positive and negative branches of organizational theory, leading to conflicting results and recommendations. According to them, there seems to be a lack of emphasis on different types of formalization. There is contradiction regarding the attitudes employees have towards formalization. While employees seem to resent "bad" rules more than they praise "good" rules, there are no clear descriptions to what are regarded 'good' or 'bad' rules. On top of this, while one would logically consider organizations with high levels of formalization as having more of these 'bad' rules, there is, however, considerable variation in employees' attitudes across organizations with high levels of formalization. A&B regard their article an effort to address this paradox and come up with a theory on how employees distinguish between good and bad rules, but at the same time the underlying, more noble quest seems to be an attempt to address the shortcomings of both Weber's model of bureaucracy and the control models of Burns and Stalker.

A&B have developed a two-dimensional framework to depict organizations based on the degree and type of formalization:

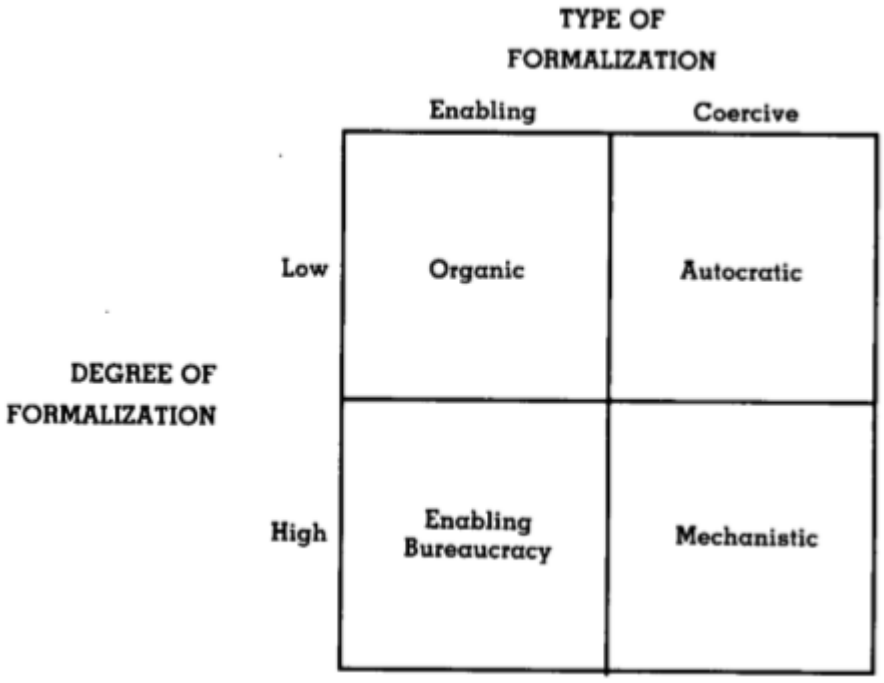

Figure 2 A typology of organizations (Adler & Borys 1996)

The degree of formalization in Figure 2 is conveyed through the classic division of organic and mechanistic bureaucracies and the type of formalization, which will be pre-

sented thoroughly later on. The fundamental idea behind the concept of an enabling bureaucracy is that with enabling formalization an organization can maintain a high degree of formalization without the negative, coercive side effects traditionally affiliated with mechanistic bureaucracies. According to it, the original black and white division between good and bad rules does not hold true. (Adler & Borys 1996.) In theory, an enabling bureaucracy should facilitate the high efficiency envision by Weber while simultaneously addressing the downfalls of the model, i.e. the issues with alienation, lack of freedom and other negative social and behavioral effects.

Unfortunately, A&B do not explain thoroughly how the organic and autocratic organizations relate to the framework, although, one can argue that they are not necessary for the analysis. An important note to make of this typology is that, in reality, purely organic or mechanistic organizations are very rare (Ahrens & Chapman 2004). Most organizations have both enabling and coercive characteristics (Ahrens & Chapman 2004), and some of them will inevitably fall somewhere in the middle ground, in the so-called "zone of indifference" (Adler & Borys 1996).

2.2 What is formalization?

Formalization is derived from the word 'formalize', and according to the Oxford dictionary (Lexico.com), the definition of 'to formalize something' is to "give [something] legal or formal status" or "give a definitive structure or shape to [something]". The Cambridge dictionary (Dictionary.cambridge.org) defines it as "to make [something] official".

Formalization in organizational context has slightly different, more precise characteristics compared to the more general definition offered above. A&B describe formalization as "the extent of written rules, procedures and instructions", thus referring to the amount of formal status given to a specific job or a task. Employees might have written job descriptions with certain rules and procedures they have to follow, or the task might have a very vague description, giving the employee more freedom to decide how they are going to complete the task. Aiken and Hage (1966) have a similar definition for formalization: "the degree of work standardization and the amount of deviation that is allowed from standards." However, they also note that the degree of formalization reflects not only the degree of rules and procedures, but also the enforcement of them.

As a comparison, more recent studies surrounding the concept of enabling and coercive formalization describe formalization as "organizational rules" (Ahrens & Chapman 2004), or very similarly as "the process of creating formal structures (rules and procedures)" (Jørgensen & Messner 2009). Some, like Wouters and Wilderom (2008), use the same characteristics but define it through examples of coercive and enabling formalization while others, like Stuart and Prawitt (2012), use several definitions from different

sources but do not actually define it themselves. Researchers seem to agree that the characteristics of rules and other formal structures are a part of formalization but the definitions are often no longer than a sentence or two and do not cover more than a few different characteristics.

A more complete description of characteristics can be found in articles concerning organizational theory. For example, Hall et al. (1967) present a thorough list of different characteristics for formalization:

- Roles: The degree to which positions are defined and whether or not there are written job descriptions.
- Authority relations: The degree to which the hierarchy of authority is defined and whether or not it is given formal status through writing.
- Communications: The degree of emphasis on written communication and the use of established channels of communication.
- Norms and sanctions: The amount of written rules and policies, the degree to which penalties are defined and the extent of them being written down.
- Procedures: The degree of systematic socialization through orientation programs and training programs.

The list above extends significantly on those characteristics already presented. Formalization does not relate simply to procedures but also to roles, authority relations, communication, norms and sanctions. The different characteristics together create a comprehensive structure comprising of the set written rules and policies. Based on the literature presented, the key characteristics of formalization can be identified:

- The degree of legitimization and codification of roles, hierarchy, communication, norms, sanctions and procedures through written descriptions, rules and policies.
- The degree of enforcement and tracking of the formalization in use.

Formalization is one of the six dimensions of organization structure, as defined by Pugh et al. (1968). The other five are specialization, standardization, centralization, configuration and flexibility. They are all considered dimensions of the famous Max Weber's (1947) theory of bureaucracy. The issue with comparing these dimensions lies in the fact that some of them contain common characteristics or, in fact, could simply be considered characteristics of formalization.

For example, Hall et al. (1967) imply that formalization and standardization are synonyms, and Aiken and Hage (1966) use the word 'standardization' in their description of formalization. It would imply that a job has to be standardized in some way to fit the description. Standardization signifies the degree of regularity and uniformity in procedures and roles (Pugh et al. 1963). However, in order to standardize the procedures and roles, they first have to be written down and formalized in the organization. Therefore,

the main difference between formalization and standardization seems to be in the legitimization of the procedures and rules.

Going back to the Oxford dictionary definition: formalization gives legal, formal status to the given rules, roles and procedures. Thus, it can be said that while standardization has similar characteristics, it should be classified as a related concept or simply a characteristic of formalization instead of a synonym. Indeed, formalization can be considered a prerequisite for standardization, although even the action of standardizing something entails setting it in writing, meaning that the two concepts are indefinitely intertwined. The Weberian model of a bureaucracy would even indicate that standardization always follows high formalization (Pugh et al. 1963).

Centralization is another concept closely related to formalization. Centralization in organizational theory is the restriction of authority, decision-making and discretion to a select few in the organizational hierarchy or to a specific location or division in the organization. In order to define the operational boundaries of centralization, roles, rules, authority and accountability need to be established. (Pugh et al. 1963.) As with standardization, it would seem that formalization is a prerequisite for centralization. Centralization requires formalization to legitimize it.

Following the categorizations of Hall et al. (1967), formalization can be summarized as the codification and legitimization of roles, hierarchy, communication, norms, sanctions, and procedures through written descriptions, rules and policies, and the enforcement and tracking of them. Formalization has overarching characteristics with closely related concepts, but a clear distinction is still the fact that concepts like standardization and centralization will require formalization, the legitimization through written rules and procedures, to become valid, but formalization does not always contain the characteristics of standardization or centralization. Therefore, while standardization and centralization require formalization as a characteristic, the same is not true for formalization.

2.3 Defining enabling and coercive formalization

The explicit description A&B (1996, 69) provide for enabling formalization is that it is "procedures [that] provide organizational memory that captures lessons learned from experience." Interestingly, this a rather precise and narrow description of the concept, particularly when considering that, on top of this, the rest of the article portrays a much broader image of enabling and coercive formalization as also referring to the general nature of an organization's rules and procedures and what attitudes they provoke in employees. The description of coercive formalization is more in line with this image, as A&B (1996, 69) describe it as a "substitute for, rather than a complement to commitment", and

"coercive procedures are designed to force reluctant compliance and to extract recalcitrant effort."

While the original article by A&B does not directly refer to MCs, studies stemming from it most often do (see e.g. Ahrens & Chapman 2004; Wouters & Wilderom 2008; Jørgensen & Messner 2009). Many of the basic definitions given to enabling and coercive formalization by others are quite similar from one source to another, but there is some variance. For example, Ahrens and Chapman (2004) have chosen to define coercive formalization as "the stereotypical top-down control approach that emphasizes centralization and preplanning", and their definition of enabling formalization follows another definition by A&B, as it "seeks to put employees in a position to deal directly with the inevitable contingencies in their work."

Jørgensen and Messner (2009) provide very similar definitions compared to A&B and Ahrens and Chapman (2004), but they have also considered the theories of Adler et al. (1999). Therefore, they define the concept of enabling formalization as "the *features* that formal systems should possess if they are to foster both efficiency and flexibility." Free (2007) adds that enabling formalization "seeks to capitalize on the intelligence of individual managers by giving them freedom to innovate amid contingencies, unexpected events, and obstacles that might impede the goals, objectives, and productivity of the organization."

While providing some insight into the ultimate meaning of the concept, the main issue with these interpretations is that none of them provide a thorough definition of any of the terms 'enabling', 'coercive' or 'formalization', or how they relate to each other. If the fundamental, basic components of a concept are not made explicit, there is bound to be misinterpretations and confusion in the use of the concept in related studies.

The Oxford dictionary definition for 'enable' is to "give [someone] the authority or means to do something; to make it possible for". Conversely, their definition for 'coerce' is to persuade someone to do something or obtain something from someone by using force or threats. (Lexico.com.) These definitions are quite different compared to A&B, who describe bureaucracy as alienating when it is coercive and as supporting the employees' abilities to perform tasks better when it is enabling (see Adler & Borys 1996, 61). When discussing bureaucracy, A&B mainly concentrate on the formalization aspect of it. A&B do not explain what they mean with alienating in the context they use it in, but the Oxford dictionary definition of 'alienate' is to "make [someone] feel isolated or estranged" or "make [someone] become unsympathetic or hostile." (Lexico.com).

If one applies the Oxford dictionary definitions to the concept of enabling and coercive formalization, the definition of enabling formalization would be that formalization provides authority and allows employees to perform actions in a certain way or provides the freedom to abstain from certain actions. Coercive formalization, on the other hand, would be formalization that forces employees to perform in a certain way.

As one can see, the definitions of A&B do not match their dictionary counterparts. A&B go beyond the basic dictionary definition for enabling and coercive without explicitly presenting their definitions or explaining the reasoning behind the deviation. The differences are significant enough that they should most definitely have been clarified in order to avoid the risk of misinterpretation.

In essence, the definitions of A&B go beyond the building or deconstruction of structures, constraints and barriers. If this definition is to be taken for granted, in order for formalization to be considered enabling, it has to go beyond simply removing constraints and barriers, it has to also construct new structures and support employees in performing actions 'better'. Better is another term left rather vague, but it has been interpreted in related studies as, for example, flexibility, higher efficiency, innovation and the development and utilization of best practices (Adler et al. 1999; Ahrens & Chapman 2004; Free 2007; Jørgensen & Messner 2009). This basic-level definition can be interpreted as the design aspect of the concept, something that will be covered more thoroughly later on.

Furthermore, A&B insinuate that their definitions of 'enabling' and 'coercive' also contain social and behavioral aspects; that coercive formalization has negative social and behavioral results, such as alienation, stress and lack of job satisfaction. The fundamental social and behavioral difference between enabling and coercive formalization seems to be that enabling formalization is supposed to promote feelings of commitment towards the organization, whereas coercive formalization replaces it with barriers, forces compliance and threatens with repercussions.

Hoy and Sweetland (2000) have created a list containing characteristics of enabling and coercive rules and procedures, presented in Figure 3, below.

Characteristics of Enabling Rules and Procedures	Characteristics of Coercive Rules and Procedures
Two-way communication	One-way (top-down) communication
Viewing problems as opportunities	Viewing problems as constraints
Encouraging differences	Suspecting differences
Promoting trust	Promoting distrust
Learning from mistakes	Punishing mistakes
Delighting in the unexpected	Fearing the unexpected

Figure 3 Contrasting enabling and coercive formalization (Hoy & Sweetland 2000)

Figure 3 quite thoroughly merges and encapsulates the different social and behavioral aspects presented in various different sources concerning the subject (see Adler & Borys 1996; Hoy & Sweetland 2000; Ahrens & Chapman 2004; Wouters & Wilderom 2008). Hoy and Sweetland (2000) highlight the importance of communication, participation, cooperation and trust.

However, it is not clear what the implications of these characteristics are on enabling and coercive formalization. They do not answer the question of what enabling or coercive formalization is from a design perspective, nor do they explain the choices that go into creating enabling and coercive formalization. It is unclear whether they are part of the design of enabling or coercive formalization, a prerequisite for it, a consequence of it, or whether they are characteristics of enablement and coercion rather than enabling and coercive formalization.

Unfortunately, different studies stemming from A&B have most often skipped the fundamental analysis or exploration of the different parts of the concept, as shown above. Instead, there is often a direct leap into the conclusion that enabling and coercive formalization is defined by the presence or lack of certain four design characteristics. They describe the different characteristics and design of formalization utilizing the four attributes or features of the concept of enabling and coercive formalization: repair, internal transparency, global transparency and flexibility. A&B portray these attributes through operative work process design principles, such as the design of production machinery or computer systems. However, in later studies (see Ahrens & Chapman 2004; Wouters & Wilderom 2008; Jørgensen & Messner 2009; Henttu-Aho 2016) the attributes are further developed and implemented through MCSs, some with a more strategic rather than operative point of view.

Repair refers to the ability of the user to fix and improve the work and control processes instead of having to stop work due to a breakdown or other disruptive event (Ahrens & Chapman 2004; Wouters & Wilderom 2008; Chapman & Kihn 2009). In other words, repair describes the ability of the control system to allow employees to solve problems and deal with unexpected failures themselves. It is an inevitability that people will make mistakes and machines will break down. (Janka 2019.) In a coercive organization, managers who fear the opportunism or shirking of employees will separate the non-routine repair functions from the routine functions. Employees are expected to simply follow instructions and nothing more. Procedures are designed in a way that will highlight the mistakes of the employees, not help them understand the underlying assumptions and identify opportunities for improvement. (Adler & Borys 1996.)

An enabling approach to repair is one that promotes two-way communication and continuous improvement. If there is a malfunction, deeper understanding and development of skills is achieved by repairing that malfunction. Therefore, there needs to be possibilities for employees to experiment, repair and learn from mistakes (Adler & Borys 1996.)

Good internal transparency, supporting enabling formalization, means that employees are given access to and can understand the internal functions of the organization on a local level. It also supports the codification of best practices and provides feedback to employees on their performance. (Wouters & Wilderom 2008.) The written rules concerning the organization and its procedures provide context on how the organization operates on a

division or company level, whereas a coercive organization might have barriers restricting access, and a significant information asymmetry (Janka 2019).

Global transparency has the same principle as internal transparency, but at a broader level. Globally transparent controls are designed in a way that gives access and allows employees to comprehend the inner workings of the organization as a whole and are more in line with enabling formalization. (Ahrens & Chapman 2004; Wouters & Wilderom 2008.) A coercive approach lets supervisors monitor the performance of each division while the divisions only have access to information specific to them. In a broader sense, the control system distributes information strictly on a need-to-know basis. In contrast, an enabling approach provides employees with plenty of information in an effort to allow them to interact creatively with the broader organization and environment. (Adler & Borys 1996.)

Flexibility in a control system grants employees freedom to alter their work procedures to fit the demands of each task specifically, even to the point of completely ignoring them (Ahren & Chapman 2004; Wouters & Wilderom 2008). This aligns flexibility with seeking enabling formalization. A coercive approach has the assumption that every step of a procedure needs to be followed and deviations can only authorized by supervisors. An enabling approach considers deviations learning opportunities instead of simply risks. (Adler & Borys 1996.)

Unfortunately, A&B have left vague how exactly these four characteristics relate to the concept of enabling and coercive formalization, but a common interpretation is that enabling formalization is defined solely by the emphasis on them as design characteristics. A control is enabling if it has been designed with the characteristics of flexibility, transparency and repair. A lack of said characteristics indicates that the control is coercive. (Janka 2019.) This interpretation, however, is not the only possible one, and I believe the existence of a multitude of distinct suppositions is the main culprit behind much of the perplexity and misinterpretation.

There is a lack of consensus on the interpretation and implementation of the concept. For example, Chapman and Kihn (2009) focus solely on the four characteristics of enabling formalization as design principles in information systems design. The focus is rather only on the possibility of increasing efficiency, completely bypassing the social and behavioural aspects of enabling and coercive formalization. Contrarily, Hoy and Sweetland (2000) concentrate on the concept of enabling bureaucracy and omit the use of the four characteristics, instead contemplating the fundamental components of enabling and coercive formalization and their social and behavioural effects.

There is also the interpretation that it is the ultimate intention of formalization that is integral for its categorization as either enabling or coercive; whether formalization is designed to “enforce compliance or to enable cooperation” (Vlaar 2006, 29-30). This interpretation, in essence, stipulates that enabling and coercive formalization, by definition,

should go beyond the simple boundaries of design characteristics. Instead, formalization also sanctions social conduct; what is socially and behaviorally allowed, what is not, and what is expected or endorsed. There is a difference in the design of formalization and the contents and intention of it. Formalization may be designed with a high level of flexibility, repair and transparency, but the intention may still be different.

This interpretation provides a different approach to the way the four design characteristics should be considered. When translating design characteristics from work process principles and information system design into organizational theory, as A&B have done, social and behavioral aspects have to be taken into consideration.

For example, when considering the enabling design characteristic of repair, it can also be interpreted more broadly and generally as encouraging two-way communication, mutual discussion, collaboration and the development of joint best practices. The same interpretation can be extended to the other three characteristics. Internal and global transparency concern free discussion and the sharing of knowledge, and flexibility the ability to experiment, alter or deviate from the standard code of conduct.

In essence, enabling formalization seems like a hybrid between formal and informal. The structures, rules and procedures are set, but the leadership, management or organizational culture is strikingly informal and, in some cases, rather indirect. Within the confines of the set structures, employees and managers are given more freedom. It is as if, in certain ways, enabling formalization is formal designs utilized informally. Conversely, the approach in coercive formalization is much more direct and forceful. Set procedures are to be followed, deviations punished and a chain of command is set to enforce this. There are design differences, such as the four characteristics, but a major difference seems to be the difference in organizational and management culture between coercive and enabling: strict and formal versus relatively loose and informal (see Adler & Borys 1996).

Adler et al. (1999) have taken the concept of enabling and coercive formalization further. When applying their theorizations, it becomes apparent that, from an organizational design perspective, enabling formalization aims for organizational ambidexterity. Ambidexterity is an effort to strive and reach organizational flexibility and efficiency. Efficiency signifies the competence to refine and exploit current capabilities, whereas flexibility signifies the competence to explore and innovate new products and services. An ambidextrous organization can do both simultaneously. (O'Reilly & Tushman 2004.)

All things taken into consideration, enabling and coercive formalization should not be considered as simply one or the other; the social and behavioral aspect and the objective of reaching organizational ambidexterity are intertwined. If following the theorizations of A&B and Adler et al. (1999), the design characteristics of enabling and coercive formalization have an effect on ambidexterity and social and behavioral aspects, and the two can have an effect on each other. With this interpretation in mind, the proposition of A&B can be summarized, as shown in Figure 4.

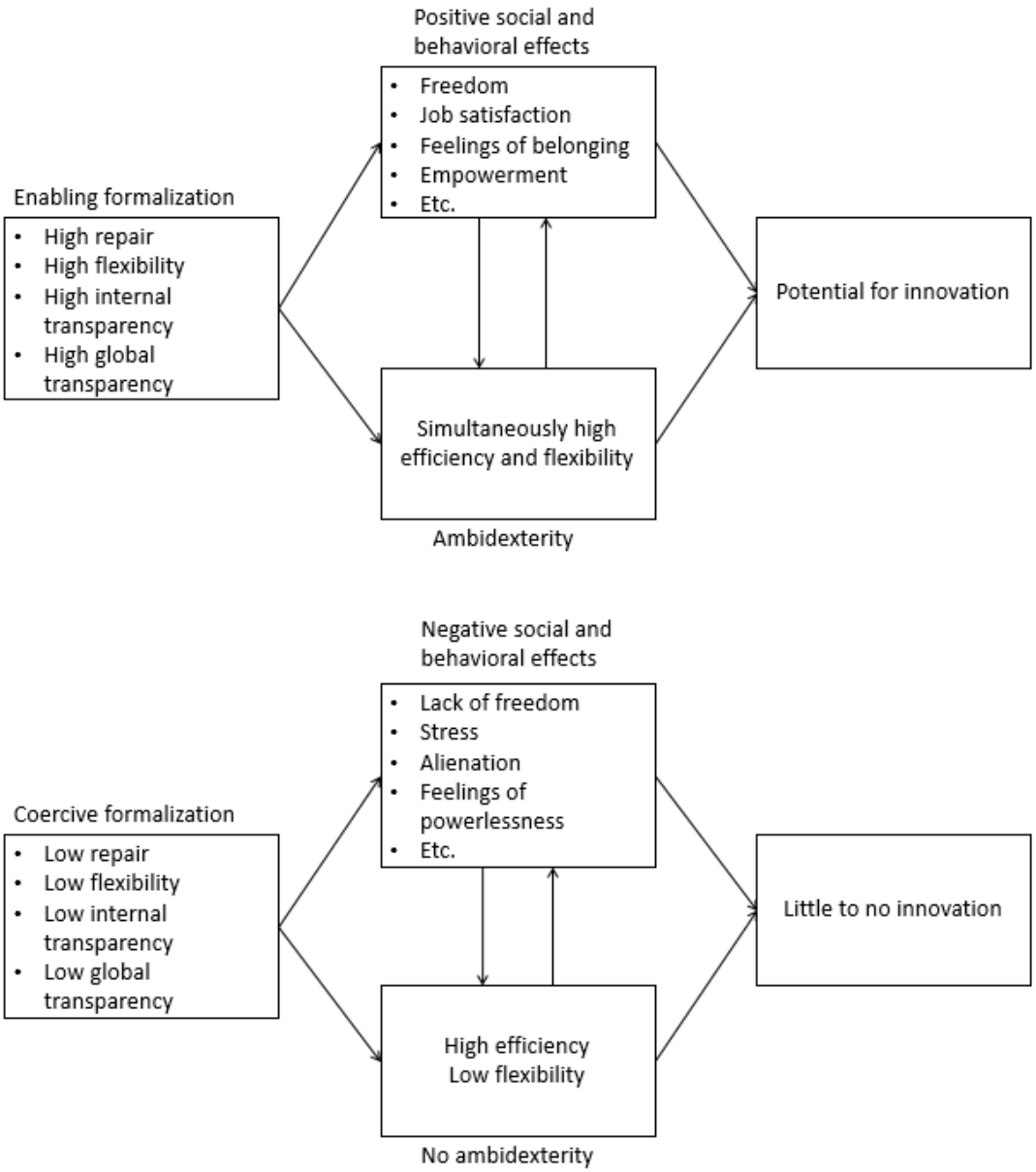

Figure 4 The concept of enabling and coercive formalization

Using repair, flexibility and transparency as design characteristics, the intended benefits of enabling formalization are that it creates structures that support ambidexterity and enhances positive social and behavioral effects. Essentially, it provides an increase to flexibility by providing the necessary processes, systems, structures and the overall autonomy to facilitate development, creativity and innovation while maintaining the control necessary for reaching high efficiency. Ultimately, this should lead to innovation. The added benefit of enablement is the positive social and behavioral effects, but A&B seem to suggest that this is also a vital component in supporting innovation.

Coercive formalization, on the other hand, is designed with a low degree of repair, flexibility and transparency. It guarantees a relatively high level of efficiency, but at the

cost of low flexibility and negative social and behavioral effects. It functions well in a mechanistic organization that has efficiency in terms of production as its sole priority; there is no inherent need to cater to the well-being of employees and thus, also no support for innovation.

In addition, A&B argue that the design structures facilitating ambidexterity also have an effect on social and behavioral aspects and vice versa. The repair, flexibility and transparency in the design of processes and systems guarantee that there is less downtime, faster solutions and more time to innovate. A well-functioning organization supports the psychological well-being of employees, and happy, content employees work more enthusiastically and are willing and able to innovate more compared to unhappy, discontent ones.

3 INNOVATION AND MANAGEMENT CONTROL

3.1 Exploring innovation and its antecedents

The terms ‘innovation’ and ‘creativity’ are frequently the subject of equivocation and conflation. There is no definitive consensus on the characteristics and boundaries between the two terms, leading to confusion. However, one more prevalent opinion is that creativity is the generation of ideas simultaneously both novel and useful (see Amabile 1996; Adler & Chen 2011), and innovation is the purposeful production and implementation of said creative ideas. Therefore, creativity can be considered the first step in innovation. (Anderson et al. 2014.)

The other component of ambidexterity, flexibility, is often utilized quite synonymously with innovation, as became apparent in the previous chapter. However, these two terms should not be carelessly mixed, as they have quite different antecedents. Georgsdottir and Getz (2004) describe organizational flexibility as “the capacity to change and to adapt to a challenging environment.” An organization may become flexible by utilizing the four characteristics of enabling formalization, as described by A&B and Adler et al. (1999), and this may also help and support employees in becoming more ‘flexible’, but it is not a foregone conclusion that high ‘flexibility’ equals innovation in employees.

As was described, enabling and coercive formalization, together with their design characteristics, may have social and behavioral effects. It is paramount to understand that these effects can influence innovation, particularly through motivation. Innovation requires three key components in order to manifest. These are expertise, creative-thinking skills and motivation. Expertise is the basis for all performance, and is built through a long process of education and experience, whereas creative-thinking skills come more naturally to some than others. (Amabile 1998.) Amabile (1988) describes creative-thinking skills as a cognitive style that favors new approaches and perspectives to solving problems and a creative thinker as someone interested in searching and discovering new cognition. These two components presented above are considered an individual’s natural resources, whereas the final of the three, motivation, is more of a short-term component in the equation. Therefore, it is also the factor most easily influenced by an organization, particularly with different forms of MCs. (Amabile 1998.)

In order to understand motivation and how it can be influenced, the theories of perceived locus of causality (PLOC) and self-determination theory (SDT) should be considered. PLOC, developed by Heider (1958), refers to the origin of the motivation behind a person’s behavior. The origin may be from either an internal or an external source. In essence, motivation can either come from within oneself as the natural enjoyment of performing actions, or through an external source, such as through rewards.

Many authors, including Ryan and Deci (2000), who are behind SDT, have further developed PLOC. SDT divides the sources of self-regulation into amotivation, extrinsic motivation and intrinsic motivation. Intrinsic motivation drives to action simply due to an individual's inherent enjoyment of performing an action, whereas amotivation reflects the lack of motivation and intention of any kind. (Ryan & Deci 2000.) Extrinsic motivation refers to actions being driven by a fear of punishment, an external authority or the necessity to comply with rules. It may also refer to actions being driven by rewards, monetary or otherwise, granted to the person upon completion of tasks. (Ryan & Connell 1989.)

The description above implies that all extrinsic motivation is external, but Ryan and Deci (2000) contradict this by arguing that some forms of extrinsic motivation can have at least somewhat internal PLOC. They have devised a taxonomy of different human motivation, as shown in Figure 5, below.

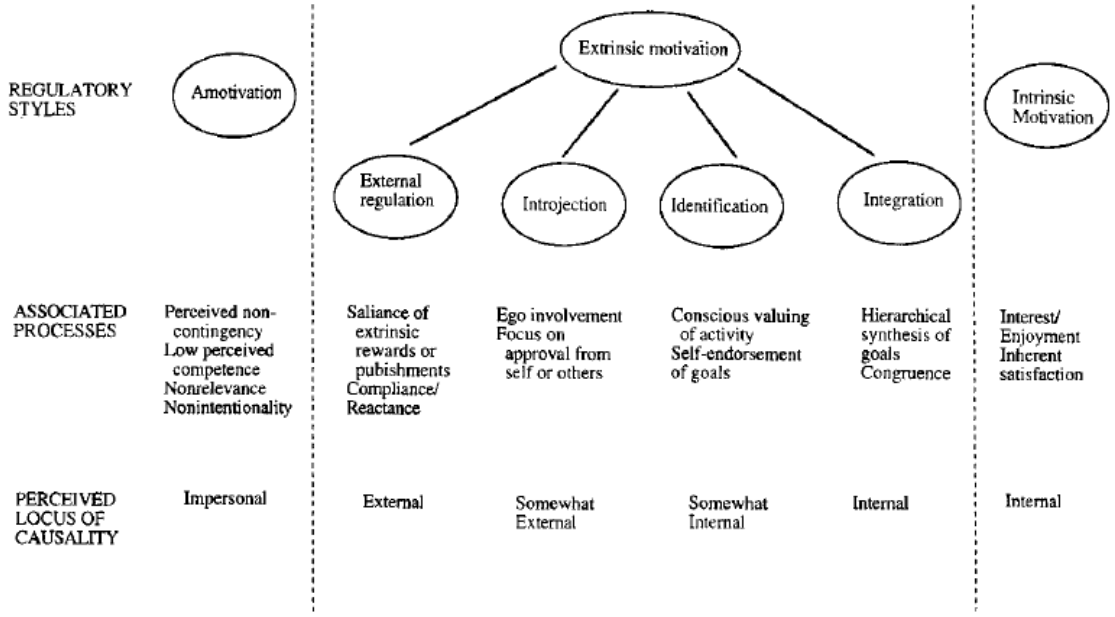

Figure 5 A taxonomy of human motivation (Ryan & Deci 2000)

Extrinsic motivation is divided into external regulation, introjection, identification and integration. External regulation represents the original concept of extrinsic motivation. Introjected motivation is regulation driven by pride, ego and a pressure to avoid guilt or anxiety. (Ryan & Deci 2000.) Gagné and Deci (2005) have grouped these two types of motivation as controlled motivation, whereas identification and integration together with intrinsic motivation were grouped as autonomous motivation.

Compared to external regulation or introjection, identification is more autonomous and self-determined. A person understands and identifies the personal need and/or benefit of

the extrinsic motivator and accepts the control it imposes. In the context of MC, an employee accepts the pressure a control exerts, and understands and identifies with the possible rewards it grants. Integrated motivation is more comprehensive; an employee has fully assimilated all of the values and goals of the organization. It is similar to intrinsic motivation in many ways, but the behavior is still motivated by regulation imposed on the person. (Ryan & Deci 2000; Gagné and Deci 2005.)

Ryan and Deci (2000) argued that for internal motivation to manifest, a set of psychological needs must be met. In the context of self-determination and intrinsic and autonomous motivation, the needs of all human beings can be generalized into three underlying psychological needs. The psychological needs are competence, autonomy and relatedness. A failure to meet these needs leads to employees having feelings of pathology, ill-being, alienation, passiveness, etc. Similarities can be drawn between these emotions and those commonly associated with coercive formalization and machine bureaucracies.

Competence relates to the feelings of confidence and adequate challenge while performing tasks, relatedness is the need for feelings of belongingness and connectedness with the organization and other employees, and autonomy relates to the freedom and flexibility to perform tasks. (Ryan and Deci 2000.)

Ryan and Deci (2000) further argued that the two common tools for extrinsic motivation, punishment and reward, have very different consequences regarding the three psychological needs. The difference is that the latter provides the person with a sense of choice, a sense of autonomy. In such a case, a person may internalize and integrate the goals as part of their own values – creating goal congruence – thus transforming controlled motivation into autonomous motivation.

SDT and particularly the theorizations of Gagné and Deci (2005) create an interesting dilemma. As was previous presented, rewards and other extrinsic motivators have commonly been associated with a certain sense of pressure and forced compliance, which according to Frey and Jegen (2001) causes a ‘crowding-out effect’. Essentially, the rewards are expected to diminish creativity because attentions are shifted to the rewards instead of the task. Thus, extrinsic motivators should undermine autonomous motivation. However, the theorizations of Gagné and Deci (2005) contradict this, and in fact, a case study by Pfister and Lukka (2019) provides evidence that extrinsic motivators may even enhance the effect of autonomous motivation under certain conditions.

3.2 Defining management control

The term ‘management control’ was first introduced in the seminal work of Anthony (1965), in which he divided control into strategic planning, management control and op-

erational control (Carenys 2012). The term has since been developed into numerous different definitions, but one that is echoed, at least in some form, by most MC literature is by Anthony and Govindarajan (2001, 6): "Management control is the process by which managers influence other members of the organization to implement the organization's strategies."

Anthony and much of the older MC literature focused strongly on formal control systems, with 'management accounting' and 'management control' often becoming essentially synonymous. Management accounting aims to produce periodic and non-periodic internal reports that coincide with what MC aims to achieve, but the external reporting demands often conflict with these goals. (Carenys 2012.) Management accounting also lacks the broader conceptions of strategy and learning processes (Merchant & Otley 2006). MCs have since then evolved into several different frameworks encompassing a much broader frame of reference (see Simons 1995; Otley 1999; Malmi & Brown 2008).

Merchant and Van der Stede (2007, 4-5) define MCs as not solely focusing on measured performance, standards and direct supervision, but also on encouragement and empowerment. MCs can be either proactive or reactive, either punishing bad behavior or preventing it from happening in the first place. In fact, they consider influencing behaviors the primary function of MC, and organizations reaching their objectives are simply the consequence and benefit of this. They view MCs through an object-of-control framework, the objects of control being: results, actions, personnel and culture. This categorization provides clearly distinguishable categories, but is still relatively all-inclusive. However, the framework does omit the strategy formulation process, something that is present in many other frameworks, as Merchant and Van der Stede (2007) do not consider strategies absolutely necessary for designing MCs.

3.3 Introduction to the control and innovation dilemma

Management control has traditionally focused mainly on creating an organizational environment and structure that emphasizes stability and guides organizations towards their pre-defined objectives. The intention is to minimize variation, and any deviations are considered negative events that should swiftly be sorted out. (Davila et al. 2009.)

The description above is a good fit for mechanistic organizations interested in increasing efficiency, stability and long-term predictability, but it does not suit organic organizations interested in the development of new products and innovations. For this reason, clan controls and other informal, minimal formalization MC types that are based on social norms dominate in R&D and other innovation-centered departments. (Davila et al. 2009.) As was presented in the introductory chapter of this thesis, innovation and strict, formal controls have traditionally been considered incompatible.

Although there is still much debate surrounding the underlying factors behind promoting innovation through MCs, a popular argument is that the previously mentioned intrinsic motivation, the internal, genuine passion and motivation employees can have towards work, is a fundamental factor. This strand of research highlights that very direct, formal forms of control, such as traditional budgets and action controls, are less effective compared to indirect, informal controls, such as clan controls, as they provide better support for intrinsic motivation. The supporters of this reasoning emphasize the importance of freedom, minimal control and minimal formalization. (Adler & Chen 2011.) When simplified, clan controls are common organizational goals, values and norms enforced informally by the employees and the organization (Chua et al. 2012).

However, in the last few decades, there has been increased interest and attention towards combining innovation with stricter, more formal forms of MC. Many originally 'organic' organizations grow and start to struggle with management issues due to a low degree of structure and formalization (Greiner 1998). Through the rapid growth of knowledge-intensive organizations, such as Microsoft, Amazon, Google and Facebook, there is now a growing need to become ambidextrous; to be able to maintain the flexibility of a startup company, but also have the MC structures necessary for orchestrating the operations of a large organization. With this ambidexterity, MC is considered both a necessary and a much desired mechanism to ensure that employees are striving to achieve the goals of the organization. (Davila et al. 2009.) Many large organizations in highly competitive industries are reaching a situation where both high control and innovation is regarded as a necessity in order to stay ahead in the competition (Adler et al. 1999).

Because of the emphasis on design, rules, procedures and efficiency in general, the 'traditional' MCs have largely disregarded the social and behavioral aspects of controls, thus also disregarding the motivation of employees (Adler & Borys 1996). How exactly the three different psychological needs governing motivation can be achieved is not fully understood, especially in an organizational context using MCs. One prominent argument is that it is, to a great degree, supported by enabling formalization (see Adler & Borys 1996; Adler et al. 1999; Adler & Chen 2011). This proposition will be thoroughly considered later on, after the comparison between the concept of coercive and enabling formalization and the four MC types by Merchant and Van der Stede (2007).

The model of organizational knowledge creation by Nonaka and Takeuchi (1995) can be utilized to explain the process behind innovation and how MCs relate to it. The model is also known as the SECI-model (socialization, externalization, combination and internalization). The core concepts behind the SECI-model are explicit and tacit knowledge.

Explicit knowledge is knowledge that can be transmitted through speech or numbers; knowledge that can be codified and transmitted through a formal, systematic language. Tacit knowledge, on the other hand, cannot be as readily transmitted from one person to another, for it has an individual's personal qualities tied to it, as well as having a specific

context. In other words, it contains actions, experience, intuition and skills that are difficult to transmit through text or speech. (Polanyi 1966, 4.)

The SECI-model itself depicts how knowledge is created. It aims to explain how people create and expand their knowledge in social interactions with one another through the tacit and explicit knowledge that they possess. (Nonaka & Takeuchi 1995.) Figure 6, below, depicts this process.

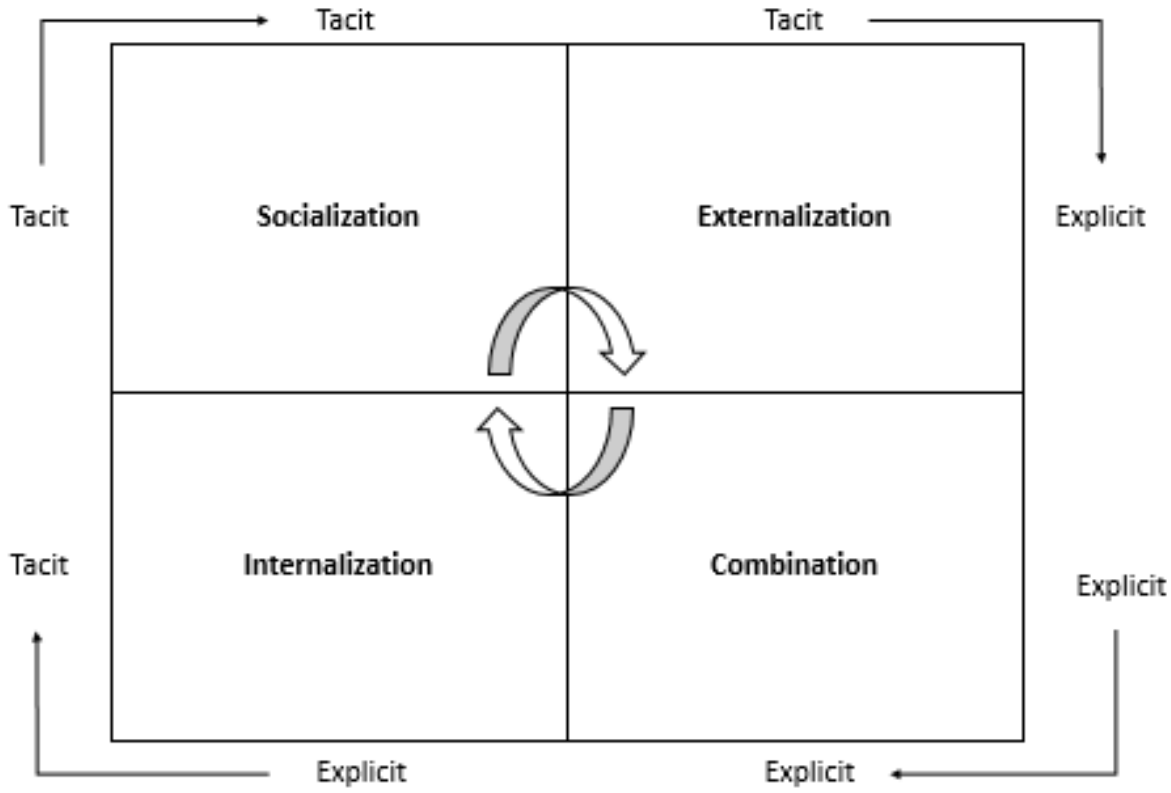

Figure 6 The knowledge spiral model (adapted from Nonaka & Takeuchi 1995, 71)

The model begins from socialization, in which tacit knowledge is transferred from one person to another, remaining as tacit. Tacit knowledge is the product of experience, and it can be transferred without language. For example, apprentices learn their craft by observing and imitating their mentors. Socialization creates occasions necessary for knowledge transfer, as well as knowledge creation, although this is still rather limited. (Nonaka & Takeuchi 1995, 62-71.)

Externalization is the conversion of tacit knowledge into explicit knowledge. It is through the creation of necessary descriptions, performance indicators and procedures that the tacit concepts, metaphors and analogies can be translated and articulated to other personnel. It is this interaction between tacit and explicit knowledge that is considered quintessential for innovation. (Nonaka & Takeuchi 1995, 64-71.)

Combination is a process in which explicit knowledge is transformed and transferred into other forms of explicit knowledge. In essence, it is a process of standardizing and preserving the originally tacit concepts onto documents, manuals, databases or other organizational information and knowledge systems. (Nonaka & Takeuchi 1995, 67-71.)

Internalization is the conversion of explicit knowledge back into tacit knowledge. New tacit knowledge is gained by utilizing the now explicit knowledge, as the experiences gained from utilizing fresh concepts give birth to new discoveries, innovations and improved concepts. This tacit knowledge has to then be transformed again to explicit knowledge, thus starting a new cycle in the spiral of knowledge creation. (Nonaka & Takeuchi 1995, 69-71.)

The SECI-model (Nonaka & Takeuchi 1995) shows how knowledge creation and the innovation process is a continuous, conscious effort that requires structures, procedures and management (Adler & Chen 2011; Davila et al. 2009). That is, in a perfect situation MC is an invaluable tool in supporting the creation, transformation and indoctrination of new knowledge, concepts and the innovation process in general. Conversely, in the worst situation, it can have utterly alienating, disruptive and destructive consequences. (Adler & Borys 1996.) However, the exact compositions of MCs that most effectively support innovation are still a subject of dispute.

4 MANAGEMENT CONTROL SYSTEMS AND ENABLING AND COERCIVE FORMALIZATION

4.1 Definition and analysis

How to define enabling and coercive formalization in the context of management control? If formalization is the formal rules and procedures of an organization, many see MCs as a "form of formalization" (see Ahrens & Chapman 2004; Wouters & Wilderom 2008). Granted, in many cases this is correct. However, many MC types can be very informal in their nature. One obvious approach is to only consider formal MCs as enabling formalization (see Jørgensen & Messner 2009), but this leaves unanswered how the strikingly informal approach of enabling formalization relates to formal MCs? Formalization as a concept may be a vital cornerstone to understanding this relation, and unfortunately, it is a concept that has been largely overlooked in this context. Therefore, it would be beneficial to inspect the concept of enabling and coercive formalization from this point of view, instead of fixating on the design characteristics of repair, flexibility and transparency.

Formalization was already given characteristics in Section 2.2, but Vlaar (2006, 27-31) has developed a typology comprising of three different attributes of formalization that may prove to be a useful conduit for gaining a deeper understanding of conceptual issue presented above. These three attributes are degree of formalization (low, high), subject of formalization (inputs/outcomes, processes) and intention behind formalization (enabling, coercive), presented in Figure 7, below. The line between the two boxes in either ends functions as a slider, indicating that a control may also lie somewhere in between the boxes.

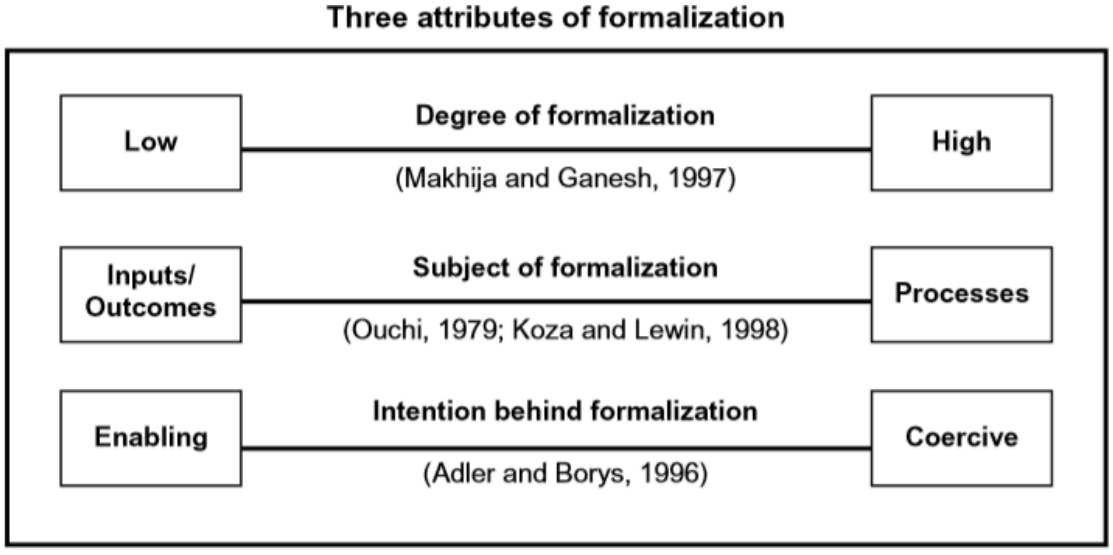

Figure 7 Three attributes of formalization (Vlaar 2006, 29)

A high or a low degree of formalization refers to the degree of legitimization, codification and enforcement of roles, authority relations, communications, norms, sanctions and procedures, as presented by Hall et al. (1967). An organization with a low degree of formalization simply has less written rules and enforcement of them. This division can also be interpreted as informal and formal controls. Although not directly stated, it can be gathered that coercive and enabling formalization should have a high degree of formalization in order to fit their intended use (Adler & Borys 1996). Following this logic, it would mean that informal controls should not be considered enabling or coercive formalization.

The subject of formalization focuses on the scope, goals and processes an organization sets for its employees. The ultimate aim of formalization is to help an organization reach its goals. In one end of the framework are the inputs and outcomes, the degree of the formalization of goals that are to be accomplished and by what means. An organization focusing on inputs and outcomes will specify, for example, the key indicators that are to be followed and a target that should be reached in a set amount of time, but the organization does not specify how the target should be reached. In the other end of the framework, by focusing on processes instead of inputs and outcomes, an organization focuses on the adjustment and coordination of activities, codifying and enforcing the issue of how to reach the wanted outcomes. (Vlaar 2006, 27-31.)

The focus between processes and inputs/outcomes can also be interpreted as the directness or indirectness of a control. A control can either have a direct effect on employees by altering their processes and procedures, or it can indirectly affect them by controlling inputs and outcomes. In this case, inputs can be interpreted as the workforce, time and resource constraints. Outputs would then be the expected products or results. (Vlaar 2006, 27-29.)

The final attribute in Vlaar's (2006, 29) framework depicts enabling and coercive formalization as the intention behind formalization. Vlaar has interpreted formalization as relating "on the one hand, to the constitution of meaning, and on the other to the sanctioning of modes of social conduct." With this distinction, he seems to relate to the social and behavioral aspects of enabling and coercive formalization. The emphasis is on "the manner in which rules are initiated, whether by imposition or agreement". Essentially, enabling and coercive formalization can be categorized depending on whether they are used in an enabling manner that promotes positive social and behavioral effects or whether they are used in a coercive manner that promotes the opposite. In this context, the broader definition of 'enabling' as supporting employees in performing tasks 'better' should not be forgotten.

The common definition for formalization was established as legitimization, codification and enforcement. This is certainly present in formal types of controls that specifically

concern processes, but it does not hold well for all types of controls, particularly the indirect ones that affect inputs and outcomes. However, A&B focus in their examples of enabling and coercive formalization mainly on the performance of tasks and different approaches towards processes. It would be logical to think that only more direct controls can be considered enabling or coercive formalization. Then again, some aspects of enabling formalization seem to have a more indirect approach. For example, "strong formal and informal incentives encourage workers to identify and propose improvements in methods." (Adler & Borys 1996, 71.)

As was presented in Section 2.3, enabling formalization seems to be more of a hybrid between formal and informal, and have both direct and indirect aspects. In order to clarify the concept, some criteria should be developed. The basic definition of formalization should be respected to a certain extent. That is, there should be an adequate degree of formal rules and procedures in place.

There is also the issue of enabling intention or 'use' of controls that complicates the analysis. Essentially, the issue seems to be that A&B intend for enabling formalization to go beyond the basic definition of formalization, as it did for the definition of enabling. The design characteristics of repair, flexibility and transparency naturally shift enabling controls away from strict formal structures.

Because of the intention to enable and encourage cooperation, there is a shift away from a stricter categorization more towards indirectness and inputs and outcomes, although, the shift is not a complete reversal. Enabling formalization should be defined so that it has direct formalization in place to guide and steer employees in the right direction, but so that it also relies on indirect motivation and persuasion to have the right inputs reach the desired outcomes. This hybrid approach would take into consideration the social and behavioral aspects of employees, as well as the aim towards ambidexterity.

As one of the aims of enabling formalization is simultaneous efficiency and innovation, the quote by Amabile (1998) can provide some insight: "Creativity thrives when managers let people decide *how* to climb a mountain; they needn't, however, let employees choose which one." Enabling formalization, basically, goes a bit further; it provides the tools, training and encouragement to let people find out how to climb a mountain most efficiently. It does not specifically state how one should climb a mountain, but it does provide help and feedback along the way. This would fill both the criteria of being formalization, but also being enabling in the sense that it helps employees perform tasks 'better'.

With this interpretation in mind, it is difficult to imagine how an indirect control could be considered enabling formalization. While it is possible for an indirect control to reach ambidexterity and positive social and behavioral effects, the intention behind enabling formalization is still in maintaining its bureaucratic elements and direct control aspects. After all, the intention is still to exert control over employees, just in an enabling manner.

As A&B conclude their article, it is in their hopes to forge "forms of bureaucracy that could deliver efficiency without enslavement."

Coercive formalization, on the other hand, is said to "stifle creativity, foster dissatisfaction, and demotivate employees", and "force reluctant compliance and to extract recalcitrant effort" (Adler & Borys 1996). These two quotes crystallize the main characteristics that should be present in coercive MCs: a complete negligence of positive social and behavioral aspects, and formalization that focuses on mechanical efficiency in processes. The aim of coercive formalization seems to be to create a foolproof system that deskills and leverages employees simply as an extension of a machine that has maximizing efficiency as its sole purpose. The recalcitrance of efforts and lack of trust would indicate that there should be some surveillance and potential punishments for performing wrong actions or not meeting the set outcome quotas.

To summarize, for an MC to be considered enabling formalization, it should have a relatively high degree of formalization, have both direct and indirect approaches, support employees in performing tasks 'better' and ultimately encourage positive social and behavioral aspects. Coercive formalization, on the other hand, is more straightforward to categorize. For an MC to be considered coercive formalization, it should have a high degree of formalization, have a direct approach and disregard the social and behavioral well-being of employees.

4.1.1 Results controls

Results controls are MCs that reward employees according to their results, a system also referred to as 'pay for performance'. Low performance will result in low rewards or even termination of employment while high performance is linked to high rewards, sometimes even to the point of there being no cap on how much an employee can earn. (Merchant & Van der Stede 2007, 25.) Another point of view to the matter is considering employees accountable for attaining certain results (Merchant 1982). In general, good results lead to good rewards that do not necessarily have to be monetary. Rewards can also be, for example, recognition, promotions, autonomy or job security. Results controls can be used to empower, encourage and motivate employees to discover actions that will produce the best results. (Merchant & Van der Stede 2007, 25-31.)

On top of providing rewards, Merchant and Van der Stede (2007) include three other elements in the design and implementation of results controls:

- Defining performance dimensions
- Measuring performance
- Setting performance targets.

Firstly, the dimensions of measurement need to be defined correctly. Since employees will attempt to improve performance within the dimensions set upon them regardless of how well they are defined, they need to be congruent with the strategies or objectives of the organization. Otherwise, the results controls might end up steering employees into wrong behavior. (Merchant & Van der Stede 2007, 25-31.)

Secondly, the measured results need to be connected to corresponding rewards. Performance measurements can include financial measures, such as return on asset and earning per share, or nonfinancial measures, such as customer satisfaction and market share. Some measurements might be of subjective nature, involving the evaluator judging whether a manager is following, for example, the code of conduct or developing employees effectively. (Merchant & Van der Stede 2007, 25-31.)

Thirdly, the performance targets need to be set up so that they give employees a specific target to aim for. It needs to be such that employees can interpret and compare their own performance. Effectively designed results control systems ensure that employees strive towards goals that are important to the organization. (Merchant & Van der Stede 2007, 25-31.) When incorrectly designed, results controls may lead to suboptimal decisions and short-termism (Janka 2019).

When comparing results controls to the division between inputs, processes and outcomes, being paid according to your performance would most definitely put results controls strongly in the category of outcomes. Employees are evaluated and rewarded based on the outputs they produce. The rewards employees receive could also be considered the only 'direct' effect results controls have, as the intention is to directly intervene as little as possible. Although, results controls could be considered to have some effect on inputs as well, as the chosen inputs will be depending on the type of performance that is monitored. For example, in a production facility, an emphasis on quality over quantity has consequences on the raw materials used.

However, interestingly, Merchant and Van der Stede (2007, 25) predominantly emphasize the description of results controls as a powerful way to influence behavior in employees. This interpretation puts a lot of emphasis on the processes aspect, which it has no direct control over. They describe pay for performance as a strong indirect motivator, much in the same way that Ryan and Deci (2000) described the prospect of rewards as encouraging identified motivation. This affirms the notion that results controls are still mainly indirect in their nature.

The motivational and behavioral effects of results controls can have characteristics similar to those envisioned by A&B as social and behavioral effects, but due to the indirectness, results controls lack any particular design characteristics that would make them singlehandedly fit the formal and bureaucratic descriptions of enabling or coercive formalization. Results controls can be considered to have formalization in the sense that the

required performance sets certain rules that have to be met, but it can be argued that this is still not at the level envisioned for enabling formalization.

While it could be argued that results controls provides as much repair, transparency and flexibility as one desires, in order to fit the intentions of A&B, it should also help employees perform their tasks 'better'. Benchmarking and other feedback is important for employee development, but the descriptions provided by A&B seems to lean more towards developing procedures that have a direct impact on how employees perform their tasks. According to its basic definition, this MC type does not provide any support or hindrance in regards to performing tasks, and therefore results controls cannot truly be considered either coercive or enabling formalization. Because of the lack of direct support and guidance in performing tasks, it cannot be said that there is an emphasis on aiming for ambidexterity.

4.1.2 Action controls

Action controls are commonly used by organizations to enforce employees to perform desired actions and refrain from performing undesired actions. Merchant and Van der Stede (2007, 76-80) divide action controls into four basic forms:

- Behavioral constraints
- Preaction reviews
- Action accountability
- Redundancy.

Behavioral constraints can be divided into physical and administrative constraints. Physical constraints are, as the name suggests, physical measures used to limit employees' actions. This can include, for example locks, passwords or limiting the access to areas in the organization's facilities. Administrative constraints are measures used to limit the employees' abilities to perform tasks. This can be achieved, for example, by limiting the decision-making authority of employees, forcing them to ask for authorization in important or expensive decisions. (Merchant 1982.) Both physical and administrative constraints are often used in unison. (Merchant & Van der Stede 2007, 78).

Preaction reviews are used to pre-emptively monitor the actions an employee is about to take. The actions are approved or disapproved by a reviewer who might also ask the employee to modify or reconsider their initial plan. (Merchant 1982.) Preaction reviews are commonly present in organizations through planning and budgeting processes (Merchant & Van der Stede 2007, 78).

Behavioral constraints are very direct controls in that they directly affect the processes and behavior of employees. They either can or cannot perform a certain task. When the aim is to prevent actions from happening, behavioral constraints limit opportunities for

repair and flexibility, leading to coercive formalization. If the purpose is also to limit communication between employees or different divisions, the controls will also lead to a low level of local and global transparency.

Action accountability dictates that employees are responsible for the actions they take (Merchant 1982). A successfully implemented action accountability control should have the wanted and unwanted actions explicitly defined and communicate them thoroughly to the employee. The actions need to be observable and employees should be rewarded for good actions or punished for unacceptable actions. Action accountability is often communicated through administrative modes, such as checklists that need to be filled before any action is made. However, especially at higher levels of the organization, actions are not explicit. Individuals are nevertheless held responsible, leading to actions requiring professional judgement. (Merchant & Van der Stede 2007, 78-79.)

Redundancy, the last of the four basic forms of action control, involves assigning more employees to perform tasks than is necessary. This will increase the probability of the task getting accomplished according to plans. (Merchant & Van der Stede 2007, 79.)

When comparing action controls to the division between inputs, processes and outcomes, the enforcement or hindrance of performing actions would clearly place action controls predominantly into the processes category, as organizations set specific rules and procedures in place to control processes directly. It is possible to consider action controls partially in the inputs and outcomes categories, as the constraints, reviews, accountability and redundancy can extend to provide enforcement or constraints to these aspects as well. For example, the entire process the action controls concerns may also include constraints on using certain materials or reaching certain outcomes. The emphasis, however, is still mainly on the processes.

The definition given by Merchant and Van der Stede (2007, 76-80) provides an immediate, formal, direct and rather negative view of action control; they seem to exist mostly to be used in an attempt to create a foolproof system or process. Following the definitions of Merchant and Van der Stede (2007), it is difficult if not impossible to envision action controls as anything other than coercive. While they may help employees perform actions ‘better’, the motivational implication is still in enforcing compliance instead of enabling cooperation; the main social and behavioral difference between coercive and enabling formalization.

The strictness of the definition provided by Merchant and Van der Stede (2007) should be reconsidered. Action controls can be, by design, very inflexible. For example, fast-food chains often have every single action outlined to the exact second (Merchant & Van der Stede 2007, 78). Employees will also need to perform tasks in a specific way in fear of being punished.

However, at the same time, action controls have potential for enabling design characteristics that should lead to positive social and behavioral effects. With a more supportive

and constructive approach, action controls can be formalized as guidelines and manuals that, when designed as enabling, should stress a supportive attitude for creativity, communication and commitment. It would allow employees to bend or break rules and modify processes when necessary. (Janka 2019.) This would allow for an increase in the characteristics of flexibility, repair and transparency. This more relaxed interpretation of action controls has potential to be enabling formalization. It has the intended effect of being a hybrid, both direct and indirect. It focuses on not only processes but also has an indirect effect on inputs and outcomes through the guidance of the workforce and feedback on the outcomes, while providing positive social and behavioral effects.

4.1.3 Personnel controls

Personnel controls are used by organizations to help their employees understand the desires of the organization, make sure the employees have all the required capabilities and resources to do their job well, and to increase the likelihood of employees performing self-monitoring (Merchant & Van der Stede 2007, 83). Many personnel controls do not directly impose any formal bureaucratic control, instead facilitating processes that allow for informal group- and self-monitoring (Abernethy & Brownell 1997). Self-monitoring could be described as the internal force that drives employees to naturally commit themselves to the goals of the organization.

Merchant and Van der Stede (2007, 83) list three common methods for implementing personnel controls: “selection and placement of employees, training, and job design and provision of necessary resources.” Selection and placement of employees involves hiring the right people for the right job. Group members with suitable values and characteristics will eventually self-regulate the actions of themselves and their peers, something very similar to what clan controls try to achieve. (Abernethy & Brownell 1997.) Organizations often resort to lengthy and expensive recruitment processes and screenings in order to mitigate the risk of employing someone with the wrong fit (Merchant & Van der Stede 2007, 83).

Training is another method to make sure employees are able to perform their tasks as well as possible. When correctly implemented, training sessions can be used to discover best practices as well as give employees a positive motivational boost. Job design and provision of necessary resources ensure that employees are motivated properly and given the best possible chance to succeed. The complexity and difficulty of the task should not exceed the skills and resources of the employee. (Merchant & Van der Stede 2007, 83-85.)

Personnel controls, as defined by Merchant and Van der Stede (2007), predominantly directly focus on inputs by emphasizing the selection, training and placement of personnel; the control over the workforce. Through this emphasis, there is a hope to affect processes and outcomes indirectly, but this is still mostly left in the hands of the employees. Job design and resource allocation serve the same purpose through providing the inputs necessary for success.

The training programs themselves can be designed with considerable emphasis on coercion or enablement. The program can consist of reflection, analysis, seminars and workshops with the intention of sharing experiences, altering perceptions and developing new practices, or it can also be designed as rigid classroom lectures with the intention of teaching a certain method and discouraging deviation from it, without any explanation or contemplation on why. This, however, has no direct impact on processes, as employees are still able to decide how they perform their actions.

It is difficult to consider personnel controls as coercive or enabling formalization. They are mainly indirect in their efforts to alter behavior; they focus on inputs, have a low degree of formalization and often do not intend to enforce anything directly. Therefore, their categorization as coercive formalization cannot truly be justified.

The main intention of personnel controls seems to be their social and behavioral effects through an effort to proactively or indirectly improve or alter the actions of employees. It supports their categorization into enabling formalization, but it would require personnel controls to have more formalization and a more direct focus on processes. As it stands, personnel controls, with the definition of Merchant and Van der Stede (2007), lack the design characteristics associated with enabling formalization.

4.1.4 Cultural controls

Merchant and Van der Stede (2007, 85-90) define cultural controls as controls that pressure individuals to conform to group norms and values. Cultural controls are written and unwritten rules that embody the traditions, attitudes, ideologies, values, beliefs and norms of the organization. Some of the most common cultural controls in regards to the definition of Merchant and Van der Stede (2007) are codes of conduct or group rewards like profit sharing or gain-sharing plans.

Cultural controls have a very broad range of different research trends. Some see it as an internal variable that can be controlled and modified, whereas others consider culture a metaphor that will inevitably always have an individual interpretation. Some even consider culture a broader variable that goes beyond organizational boundaries. This research avenue suggests that culture is an environmental aspect that needs to be taken into consideration when designing MCs. (Carenys 2010.)

Nevertheless, cultural controls are often associated with clan controls, which are considered mostly indirect in that they do not directly impose any rules or affect the actions or procedures of employees. Instead, many of them have only the intention of affecting the attitudes and behavior of employees. (See Ouchi 1979.) With these different interpretations in mind, the definition of Merchant and Van der Stede (2007) is very narrow.

Codes of conduct are one of the more direct forms of cultural control, because they may concern rules and procedures that have direct effects on processes. They are used by organizations to force the development of a consensus on what constitutes desirable behavior within the organization. It will often state the mission, vision or management philosophy of the organization, with the intention of helping employees understand and internalize the culture. (Merchant & Van der Stede 2007, 85-88.) In this form, codes of conduct are mainly affecting inputs, but depending on the chosen approach, they may be enforced with certain rules or mandatory procedures that extend to processes as well. Group rewards, on the other hand, indirectly affect the action of employees through outcomes.

In order to get a broader view of cultural controls, there are other dimensions worth mentioning. Malmi and Brown (2008) divide cultural controls into three aspects: value based controls, symbol based controls and clan controls.

Value based controls are a part of the belief systems from Simons' levers of control (1995), designed to formally communicate and systematically reinforce the core values of the organization, the desired level of performance, and how employees are expected to treat relationships both internally and externally. The beliefs system is communicated through value based controls, such as mission statements and statements of purpose, which need to be formal, information-based and actively used by managers for the benefit of the organization. An effective belief system can be used to guide and inspire employees to discover ways to tackle problems and, in the absence of problems, search for new ways to create value. (Simons 1995, 33-38.) A code of conduct is essentially very similar to value based controls in regards to directness and the object of control when utilized with the same principles.

When used effectively, symbol based controls help organizations highlight their culture, values and vision, and evoke a subconscious reaction from both employees and other stakeholders (Dandridge et al. 1980). Schein (2010, 23) calls the first level of cultural symbolism the artifact level. Artifacts are the clearly visible components, such as the facilities, language, clothing, logo and slogans of the organization. For example, a bank with large granite pillars, stiff clerks in grey suits and stone-faced guards in the lobby emanates an aura of seriousness, stability and security that can be felt when entering the building. Then again, a bank with pillars carved out of highest quality Italian marble and decorated with gilded ornaments may emanate a sense of wealth and prestige, but may also implicate to some that the bank is too wasteful and carefree with their money.

Another common source of symbolism is the stories and myths deliberately woven to give meaning and structure to important events or characters, such as the founding of the organization or the founder himself. Some organizations rely on ceremonies and ritualized events for cultural control. This may include, for example, extensive trainee and orientation programs, meetings or pep talks. These rituals and ceremonies have aspects of both symbolism and clan controls. (Danridge et al. 1980.)

Clans as control mechanisms rely on social agreements surrounding common values and beliefs, lacking the explicit rules present in traditional bureaucratic controls. This arrangement will require deep commitment from each individual in the organization. (Ouchi 1979.) Clan controls are informal control mechanisms that draw authority and conformity from the interactions among the organization's members. Employees are directed, influenced and steered towards common goals through norms, ceremonies and rituals. (Chua et al. 2012.)

Symbol based controls lack any clear formalization or directness. They are designed to evoke emotions, and indirectly steer employees to a certain behavior. (Dandridge et al 1980.) The indirect effects are partly on inputs and partly on processes, as the intention is to alter the values and norms of employees, as well as their actions.

Then again, ceremonies and rituals can have a significant direct impact on processes and actions. For example, budgeting is sometimes referred to as an organizational ritual. It is often a rigorous process containing many mandatory steps and actions, therefore, most certainly having a direct impact on processes. (Hofstede 2001, 383.) However, while budgeting can be considered a ritual, it is typically not considered a cultural control.

Quite similarly, there is no clear directness or formalization in clan controls. In fact, as was stated, the original intention of it was specifically to avoid explicit rules (Ouchi 1979). As such, the main objective of clan controls is to affect inputs and processes indirectly.

As one can see, even with the narrow definition provided by Merchant and Van der Stede (2007), the division of cultural controls into coercive or enabling formalization is not a simple task; the design may or may not have characteristics of coercive or enabling formalization. They are, in many ways, hybrid controls possessing both direct and indirect aspects.

This task becomes even more difficult when a broader definition is chosen. It is, however, difficult to envision cultural controls as coercive. Although the few design elements may increase efficiency and flexibility, the emphasis in codes of conduct is still on indirectness and, more importantly, social and behavioral aspects, which are ignored in coercive formalization. The same emphasis on indirectness makes it difficult to consider codes of conduct enabling formalization, either. If they were designed more supportive, in line with the guidelines for action controls, they would have the right characteristics.

Symbol based controls and clan controls have the same issues. The emphasis on social and behavioral aspects could support their categorization into enabling formalization, but the lack of formalization, lack of focus on ambidexterity and the directness leads to the conclusion that they can be neither enabling nor coercive formalization. It is as Chua et al. (2012) conclude in their article: the effects of cultural controls are difficult to predict and control, and therefore require the support of other controls. For example, to leverage clan controls, the organization has to utilize a combination of personnel, action and results controls.

4.2 Summary of the analysis

All of the four MC types defined by Merchant and Van der Stede (2007) were analyzed and categorized by dividing into inputs, processes, outcomes and the directness of the control. The results have been summarized in Table 1, below.

Table 1 Results of the analysis

	Inputs	**Processes**	**Outcomes**	**Direct**	**Indirect**
Results Controls	X	–	XXX	–	X
Action Controls	X	XXX	X	X	–
Personnel Controls	XXX	–	–	–	X
Cultural Controls	XXX	X	–	–	X

Table 1 illustrates the emphasis of different MC types on either inputs, processes or outcomes. The amount of X-marks (going from 0 to 3) denotes the significance of the emphasis. The figure also illustrates with single X-marks whether the MC type is intended to have predominantly direct or indirect effects.

Results controls attempt to control employees indirectly by setting performance measurements and providing rewards based on outcomes. This emphasis will have some effects on inputs, as well. (Merchant & Van der Stede 2007, 25-31.)

As defined by Merchant and Van der Stede (2007, 76-80), action controls attempt to directly control employees through the use of boundaries, restrictions, rules and set procedures. The emphasis is mainly on processes, but can extend in some cases to involve inputs and outcomes.

Personnel controls are very indirect in their approach to control; the main emphasis is on affecting inputs, the personnel. Through selection, training and placement, there is an aspiration to have an impact on processes and outcomes, but personnel controls do not directly affect them. (Merchant & Van der Stede (2007, 83-85.)

The definition of Merchant and Van der Stede (2007, 85-90) for cultural controls has more of a direct approach compared to many other definitions (see Ouchi 1979; Dandridge et al. 1980). Because of this, depending on the use of codes or conduct or value based controls, it is possible for cultural controls to have a slightly more direct impact on the processes of employees. Then again, it is up for discussion, because some would argue that this direct impact is more due to the support of other controls rather than cultural controls (see Chua et al. 2012).

After the initial analysis, the categorization as enabling or coercive formalization was contemplated. Due to the requirement of having structures, directness and formalization to the liking of a bureaucracy, the only MC type with potential for being defines as enabling or coercive formalization was action controls. The description provided by Merchant and Van der Stede (2007) for action controls is strikingly coercive, certainly fulfilling the criteria for coercive formalization.

Enabling formalization, on the other hand, has to have less formalization and more indirectness in the sense of autonomy and positive social and behavioral aspects; a sort of hybrid between codes of conduct and formal action controls. Interestingly, none of the MC types described by Merchant and Van der Stede (2007) quite suits this description. Only when a broader definition of action controls is taken, is it possible to consider action controls enabling formalization.

5 DISCUSSION AND CONCLUSIONS

5.1 Conceptual comparison and analysis of related empirical studies

As became apparent, it is quite a challenge to find a suitable example of enabling formalization. Therefore, it is also quite surprising to see such an abundance of studies utilizing the concept without performing a thorough analysis on the suitability of it. It is, however, not surprising to see that many of them seem to have faced some theoretical issues or inconsistencies. (see Ahrens & Chapman 2004; Henttu-Aho 2016; Krause et al. 2017.) Following the framework of Puusa (2008), this chapter analyses how other researchers have utilized the concept of coercive and enabling formalization. The intention is to find out whether it has been misused or whether the concept has theoretical inconsistencies that should be analyzed further. However, it should be noted that it is difficult to make a reliable comparison of the different case studies, as there are always inevitable differences in interpretation and the composition of the different MCSs across different organizations.

For example, Henttu-Aho (2016) noted in her case study that the attitudes towards newly implemented budget controls were not unanimously positive, even though one would have expected it due to the controls being designed with enabling formalization in mind. In particular, the new budget controls had design characteristics that supported flexibility and transparency, providing controllers with more avenues to be strategic and creative. While she does not describe how the terms ‘coercive’ and ‘enabling’ have been interpreted in the context of her case study, the new budget controls she describes do seem to fit the requirements set for enabling formalization. Namely, there is adequate direct formalization, but enough flexibility and autonomy to deviate from set rules and procedures.

Henttu-Aho (2016) credits the new budget controls as helping employees perform their tasks more effectively and reinforce their commitment. Higher efficiency and flexibility was observed, but the new budgetary practice created tension as some controllers considered the shift an undesirable change in their role. She credited these result to a misalignment in the mindset and expectations of the organization and some of its controllers; some employees were risk-averse and preferred the old ways, or some simply did not have the competence to rise to the occasion.

In order to support motivation, the tasks should be challenging enough, but not overwhelmingly so. A misalignment in the challenge of the tasks and the competences of the employees will lead to negative social and behavioral effects. (Ryan and Deci 2000; Pfister & Lukka 2019.) Returning to the three basic psychological needs: autonomy, competence and relatedness, it could be argued that the enabling controls in Henttu-Aho’s

(2016) case organization lacked proper support, training and guidance to accommodate for the increase in needed competence. Therefore, while the organization's budget controls had most characteristics needed for enabling formalization, it is not perfectly suitable to be considered enabling formalization. The lack of support and guidance is a significant deviation from what was defined as enabling action controls.

The case study by Ahrens and Chapman (2004) presented an organization containing controls designed with both coercive and enabling formalization that, due to a "culture of mistrust", remained coercive despite efforts to utilize enabling formalization in the design of controls. The emphasis in the design of MCs in their case organization was on efficiency and flexibility, not a dual emphasis on both ambidexterity and positive social and behavioral effects.

In essence, the coercive formalization structures were left intact, and enabling formalization was added as separate controls. A particular issue in their case study was the lack of trust between employees and the different management levels. The case organization still had coercive, formal controls in place for micromanagement and monitoring, which had negative social and behavioral effects. (Ahrens & Chapman 2004.) It could be argued that this chain of effects led to a lack of relatedness between the different counterparts and the organization as a whole, causing lowered enthusiasm towards innovation.

Ståhlberg (2018) noted a similar lack of relatedness in his case organization, and a case study by Kraus et al. (2017) discovered that new guidelines, designed with characteristics inherent for coercive formalization, were not resisted or considered coercive even though, according to the theory by A&B, they should have. A suggested explanation in this case was the trust between employees and their managers. On the other hand, although it does not explicitly discuss the theories of A&B, a case study by Pfister and Lukka (2019) presents an organization that can be interpreted to have been successful in reaching ambidexterity and positive social and behavioral effects with the help of enabling formalization.

These examples seem to contradict many of the initial interpretations made of the original concept by A&B. It is the social and behavioral aspects of MCs and their motivational effects that seem to play a much more significant role compared to simply pursuing ambidexterity through the design and implementation of the four characteristics of enabling formalization. Furthermore, the expectation of enabling formalization creating positive social and behavioral effects and coercive formalization creating negative social and behavioral effects does not seem hold true in every case.

It can be stated that the propositions of A&B can be considered plausible, albeit in a very narrow set of scenarios. It is plausible that a control can be designed with the four characteristics of enabling formalization and reach ambidexterity, as well as positive social and behavioral effects. It cannot, however, be said with certainty that all of the social and behavioral effects are a direct consequence of the specific design choices of enabling

or coercive formalization, and even if they are, the results seem to be varied and unpredictable. The results may vary because of differences in organizations, cultures or other, indirect or unintentional effects. It is difficult to envision how even a perfectly designed enabling action control system can achieve all that is envisioned of it.

Based on the mixed results from different case studies stemming from the A&B article, it can be argued that it is the social and behavioral aspects that are causing much of the fluctuation from one organization to another when the design aspects are similar. The most impact an organization can have on social and behavioral aspects is through personnel and cultural controls. Social and behavioral effects are difficult to predict, and to combat the unpredictability, personnel and cultural controls can be used in an effort to change the culture, values and norms. (Merchant & Van der Stede 2007.)

In fact, both Mundy (2010) and Janka (2019) emphasize the importance of personnel and cultural controls; they seem to play a more crucial role in the enablement or coercion of an organization than more direct, formal controls do. This is a very contradicting conclusion, as it was shown that personnel and cultural controls lack the necessary formalization to be considered enabling or coercive formalization. Perhaps the concept of enabling and coercive formalization requires a broader perspective when they are considered in the MC context. Perhaps the enabling structures, rules and procedures require other, more informal and indirect controls to support them.

Results from the different case studies indicate that controls work in a symbiosis. Single controls cannot be analyzed in a vacuum without other controls significantly affecting the results of the analysis, thus enforcing the belief that controls should be viewed as a package or a complete system instead of individually (Malmi & Brown 2008), especially in the context of enabling and coercive formalization (Janka 2019).

However, cultural controls, such as clan controls, are difficult to control, and therefore their effects are hard to predict. Chua et al. (2012) point out that clan controls require the support and structures of other controls. Not only is the interplay of different control types important, but also the composition of single controls.

To summarize, it would seem that, in practice, it is difficult to envision how even enabling action controls could reliably singlehandedly fulfil all of the requirements set for enabling formalization. From a theoretical and conceptual perspective, it is quite problematic that a concept largely has its foundations in formal structures and controls, but much of its effectiveness depends on informal structures and controls. The issue is that, ultimately, these informal structures and controls have been left vague or unexplained by the original concept. However, before continuing with this train of thought, lets us delve deeper into the social and behavioral aspects of enabling and coercive formalization in MCs, and how motivation and innovation is influenced.

5.2 The control and innovation dilemma

As was briefly mentioned in Section 3.3, a popular theory by Adler and Chen (2011) proposes that enabling formalization is a key factor in supporting and enabling innovation. It challenges the importance of minimal control and formalization in large groups of employees by arguing that large-scale collaborative creativity (LSCC) puts an equal emphasis on freedom and control. LSCC refers to projects, such as the designing of a new aircraft, which might require the coordinated efforts of hundreds of employees at any given time. Freedom is needed for individuals to be able to innovate, but control is necessary to orchestrate the efforts of an entire project team.

Adler and Chen (2011) have further developed the categorization of Ryan and Deci (2000) by taking into consideration Markus and Kitayama (1991) definitions of independent and interdependent motivational orientations. Independent orientation refers to motivational reasons stemming from oneself, whereas interdependent refers to internalization of the values of a group. Employees with an interdependent orientation will consider their co-workers a family or a team they care about, instead of simply looking out for oneself. For example, "I enjoy solving problems" becomes "I enjoy working together with the team to solve problems", when considering intrinsic motivation.

One of the propositions of Adler and Chen (2011) is that an organization requires intrinsic and identified motivation together with both independent and interdependent orientation to be able to support the high demands of simultaneous control and creativity. According to them, creativity is best supported by intrinsic and identified motivation. An independent orientation supports creativity and an interdependent orientation supports control. They argue that all of the above can coexist if an organization utilizes an optimal mix of different controls.

Adler and Chen (2011) have utilized the control systems from the four levers of control by Simons (1995) as a framework to describe different control types. These controls are:

- Beliefs systems
- Boundary systems
- Diagnostic control systems
- Interactive control systems.

Beliefs systems are very similar to cultural controls, as was presented in the previous chapter. They help convey the strategy, vision and mission; the general values of the organization. Boundary systems set the boundaries for acceptable behavior in an organization. They are, in many ways, very similar to action controls. The description provided by Simons (1995) is a rather coercive one, similar to the one provided by Merchant and Van der Stede (2007).

Diagnostic control systems are the feedback systems designed to predict and ensure the achievement of set organizational goals. They are often used to measure the performance of managers and employees. Common diagnostic controls are, for example, budget controls. (Simons 1995.) Henttu-Aho (2016) proved that at least some forms of budgeting could be considered enabling formalization, and the article of Hansen et al. (2003) provides insight into how traditional budgeting may be considered coercive formalization.

Lastly, interactive controls are used to direct and facilitate two-way communication between top and lower management. Through communication, the interactive control systems facilitate debate and learning opportunities, from which new strategies may emerge. (Simons, 1995.) The dual role as a tool to measure performance and a tool for communication makes them difficult to categorize as any of the four forms of control, as they contain characteristics of both cultural and results controls.

Adler and Chen (2011) argue that the enabling use of boundary and diagnostic controls has a positive effect on intrinsic and identified motivation and the interdependent orientation, all necessary for LSCC and, therefore, also necessary for innovation and control to coexist. This would mean that, to a certain extent, results and action controls designed with enabling formalization promote types of motivation necessary for innovation. In essence, A&B and Adler and Chen (2011) argue that enabling formalization correlate positively with innovation.

By enabling use, they refer to designing and utilizing boundary and diagnostic controls. Boundary controls provide guidance and support to employees, provide insight into the identity and goals of the organization, and ultimately support motivation through an internalization process. Diagnostic controls provide transparency, accountability and flexibility. They provide opportunities for employees to learn, coordinate, benchmark, receive feedback and improve their performance. (Adler & Chen 2011.) Unfortunately, Adler and Chen (2011) do not explain how enabling formalization affects the three psychological needs or how the four design characteristics function to support motivation. In fact, the four design characteristics, the most popular aspect of the concept by A&B, are not mentioned in the article.

However, Ståhlberg (2018) discovered in his doctoral thesis that the four design characteristics were not sufficient to spark innovation in his case organization. The case organization had cybernetic controls designed with enabling formalization, but there was a lack of motivation and enthusiasm towards innovation. The cybernetic controls he refers to are, essentially, planning and budgeting controls. He argued that the four characteristics are beneficial for removing barriers, granting freedom and helping create an environment and a structure suitable for innovation, but they do not cause innovation to happen.

Ståhlberg (2018) proposed that enabling formalization was useful for granting autonomy and some feelings of competence, but noted that planning and budgeting controls

designed with characteristics of enabling formalization do not provide feelings of relatedness; there was a distinct passiveness towards creativity and the creation of new knowledge. He argued that this lack of relatedness was due to a lack of motivational guidance, pressure and support exerted by managers.

Gagné and Deci (2005) have developed a framework depicting the antecedents and outcomes of autonomous motivation, shown in Figure 8, below. Essentially, the social environment together with individual differences make up the three psychological needs required for autonomous motivation, which in turn provides positive attitudinal and social outcomes. One of these positive effects is creativity, the first step towards innovation, while the rest of them significantly resemble those characteristics listed out by Hoy and Sweetland (2000) for enabling formalization (see figure 3).

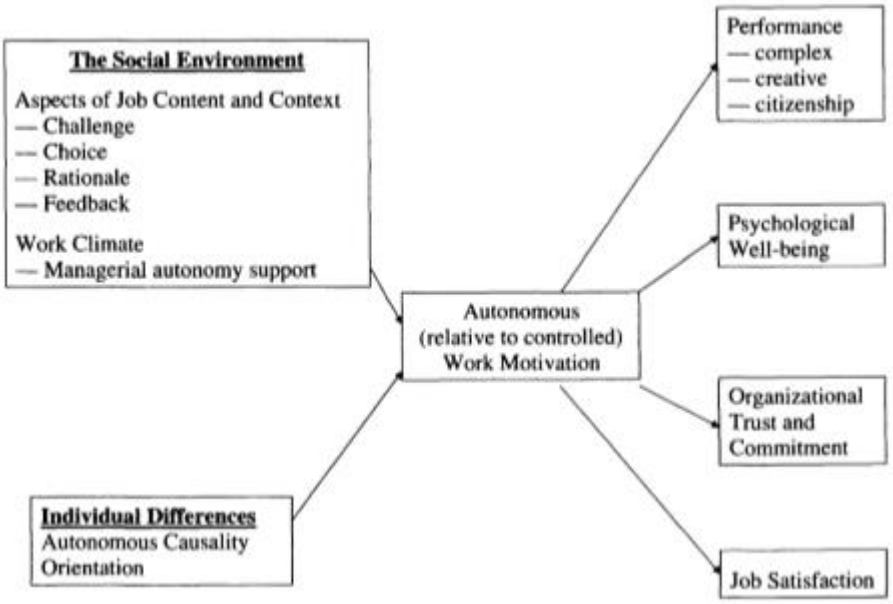

Figure 8 Antecedents and outcomes of autonomous motivation (Gagné & Deci 2005)

When applied to the concept of enabling formalization, challenge represents the proper pressure and guidance provided by rewards systems and enabling formalization in the form of, for example, planning and budgeting controls. Rewards have typically been considered to undermine intrinsic motivation and replace it with extrinsic motivation (Gagné and Deci 2005), but Pfister and Lukka (2019) found that employees require some sort of external incentive and pressure to strive for innovation. In their case, it was through demanding stretch targets together with sizeable bonuses, which are categorized by Merchant and Van der Stede (2007) as results controls. Strict results controls apply pressure resembling indirectly, at least by nature, coercive formalization.

The source of pressure would, therefore, normally also be a source of negative stress, but the enabling nature of the organization was such that negative forms of stress were

reframed positively. In essence, the employees identify with the stress as a positive factor, creating autonomous motivation and motivating them to strive for higher performance and innovations. This positive reframing was due to an alignment with the values and expectations of the employees and the organization. The case organization utilized a very comprehensive recruitment process to ensure the suitability of its candidates. The employees had to have a certain disposition towards risk-taking, and they received support from the organization. It is suggested that this reframing counteracts the crowding-out effect and may actually enhance the positive effects of external autonomous motivation. (Pfister & Lukka 2019.)

Employees require support and feedback functions that provide information and understanding on how to make an impact and which behaviors will lead to achieving the goals set for them (Gagné and Deci 2005). Support and feedback functions are not especially prominent in the four characteristics of enabling formalization, but the examples A&B utilize to describe transparency shows how the organization should be in a continuous loop of development, implementation, review, feedback and reiteration (see Adler and Borys 1996). Rewards, feedback and the proper design of jobs provide feelings of competence by providing adequate challenge and adequate support to back up the challenge.

Choice, rationale and managerial autonomy support represent the autonomy aspects of the three psychological needs. Rationale is the logic or explanation behind performing actions. In essence, it describes how employees identify with the goals of the organization; the logic behind performing actions in this case is that employees expect to receive something in return. Therefore, this relates to the reward system. (Gagné and Deci 2005.)

Choice represents the freedom and flexibility an organization provides in going about and performing tasks (Gagné and Deci 2005). The repair and flexibility characteristics of enabling formalization are especially supportive of this. Managerial autonomy support is the feedback, guidance and support provided by managers. It is important for feelings of autonomy, but also for competence and relatedness, as was shown in the doctoral thesis of Ståhlberg (2018).

The individual differences of employees reflect how people tend to experience social situations differently. For example, some people experience them as supporting autonomy, as controlling or simply impersonal. Differences in individuals describe how receiving people are towards different forms of control. This is important as personnel controls can be utilized to hire the correct type of individuals, as well as develop proper training methods and cultural controls suitable for them. (Gagné and Deci 2005.)

To summarize, action controls designed with enabling formalization provide autonomy and competence by granting the freedom and flexibility to pursue tasks in a manner most natural to the employees, while still providing enough support and guidance for them to not become encumbered or bewildered. It can be argued that enabling action

controls can encourage the autonomy of employees through the removal of coercive barriers and the construction of beneficial organizational structures. (Ståhlberg 2018.)

Enabling organizational structures are, for example, those that increase flexibility by allowing freedom in tasks and processes, those that increase transparency by granting access to information and removing departmental barriers, and those that allow for repair and thus grant freedom to experiment and fail (Ståhlberg 2018). It is quite likely that enabling formalization provides some levels of relatedness, but the results of Ståhlberg's (2018) thesis suggest that not necessarily enough.

The intrinsic motivation of some individuals may account for some innovation if the enabling controls grant the freedom and autonomy necessary, but intrinsic motivation is a rarity (Ryan & Deci 2000). It can be argued that enabling formalization may enable organization to reach identified motivation, but it would seem that innovation requires true, integrated motivation, which requires something more; in order to achieve goal congruence, there needs to be a sense of relatedness within the organization.

The lack of relatedness could also explain why some organizations containing action controls or planning and budgeting controls designed with the characteristics of enabling formalization still meet negative attitudes and fail to reap the full benefits of enabling formalization (see Ahrens & Chapman 2004; Henttu-Aho 2016). The concept of relatedness would also explain why employees might overlook some coercive controls (see Krause et al. 2017; Pfister & Lukka 2019). Regardless, there is evidence that enabling formalization is useful for innovation, whereas coercive formalization seems to create structures that hinder innovation.

Yet, it seems to be too ambitious to assume that enabling formalization alone is enough to facilitate ambidexterity, have positive social and behavioral effects and promote autonomous and intrinsic motivation to the point of sparking innovation. According to Pfister and Lukka (2019), stress in their case organization was mitigated due to the presence of 'physical and social arrangements'. For example, there were recreational activities and entertainment, work time flexibility, no dress code and high compensation and bonus plans compared to market rates. Managers promoted an easy-going, supportive and collaborative approach to organizational values. The design choices were all aimed at building an image of the organization as an outstanding workplace and promoting a sense of pride, appreciation and ownership in the employees.

In essence, the organization designed its MCs in a way that emphasized maximizing all of the three psychological needs. The conclusions are similar to those made by Mundy (2010) and Janka (2019); it is not the single MCs but the joint use of them. Adler and Chen (2011) do propose the importance of a joint effect of different MCs on motivation, but the propositions lack clarity in regards to the intended effects of the different components, specifically concerning the three psychological needs.

As was pointed out, Adler and Chen (2011) do not mention how the four design characteristics of enabling formalization relate to innovation, instead concentrating on enabling and coercive 'use' of MCs. Although they provided merely a few examples of enabling use and none of coercive use, enabling and coercive use of MCs seems to take a much broader perspective on the concept. It extends the definition more towards indirectness and informality by disregarding the formal structure and design of the controls, instead concentrating on social and behavioral effects. Enabling 'use' of controls is more reminiscent of cultural controls. For example, there is an emphasis on informality through 'face-to-face dialogue and debate' and other guidance similar to it. The issue presented at the end of Section 5.1 remains unanswered.

5.3 Making sense of enabling vs. coercive formalization

Enabling and coercive 'use' of MCs creates a dilemma. In order to maintain conceptual clarity, a decision must be made on the extent of the definition of enabling and coercive formalization, the extent of the definition of enabling and coercive 'use' and their relation. The concept of enabling and coercive formalization and their 'use' are often seen as synonymous; even though the context they are used in transforms the meaning significantly from one article to another (see Hoy & Sweetland 200; Ahrens & Chapman 2004; Chapman & Kihn 2009; Adler & Chen 2011; Janka 2019). Some even opt to use enabling and coercive bureaucracies to refer to the same concept (see Davila et al. 2009).

The vagueness has implications for the understanding of the four MC typology (Merchant & Van der Stede 2007) in this context as well. Only one of them could be, strictly speaking, considered enabling or coercive formalization. However, there is evidence that the three other MC types outside of action controls also play a major role in the enablement or coercion of an organization, the goal of reaching ambidexterity and the positive or negative social and behavioral effects. (See Mundy 2010; Ståhlberg 2018; Janka 2019; Pfister & Lukka 2019.)

Proposition: In order to bridge the gap between the concept of enabling and coercive formalization and the 'use' of them, I propose the concept of a culture of enablement and a culture of coercion. They denote the enabling and coercive 'use' of MCs, and together with enabling and coercive formalization, they form either an enabling or a coercive bureaucracy.

Essentially, a culture of enablement and a culture of coercion signify the cultural composition of an organization. An organization can have controls designed with the characteristics of enabling formalization, but that alone may not be enough to create an enabling organization if the culture remains coercive. The enabling and coercive cultures represent

the more informal, indirect MCs that support enabling and coercive formalization but lack the characteristics, structure and formality. In other words, results, personnel and cultural controls fall into this category. They relate strongly towards the social and behavioral aspects rather than design and ambidexterity, although they will inadvertently have an effect on them, as well (see Tessier & Otley 2012).

In order to understand the purpose of the culture of enablement, let us consider the differences between identified and integrated motivation. The prospect of rewards seems to be a strong incentive for identified motivation in an environment that requires LSCC. Indeed, it is not far-fetched to imagine that employees are willing to internalize the goals of the organization in exchange for rewards – after all, most people primarily work for money and the prospect of furthering their career (Ryan & Deci 2000) – the rewards promote identified motivation. In addition, rewards are integral because of how they provide a sense of choice and autonomy (Ryan & Deci 2000). They are also helpful in attaining and retaining personnel that already have the two other basic needs for innovation – experience and creative-thinking skills (Merchant & Van der Stede 2007).

On the other hand, the level of pressure and guidance also has an effect on identified motivation. Too strict or too lax pressure has an adverse effect on competence – a low performance target is deemed unchallenging, whereas an excessively high performance target will not provide a feeling of competence, as the target will never be reached. Too little or too much guidance, on the other hand, has adverse effects on autonomy – pampering or coercively controlling the employees diminishes their feelings of autonomy, but providing no support and guidance can be equally demoralizing due to role stress and indecisiveness, as has been argued in several different studies (see Rosseau 1978; Jackson & Schuler 1985; Adler & Borys 1996).

In essence, enabling formalization together with the incentives from rewards systems provide feelings of autonomy and competence, which support identified motivation. These, however, may only work to a certain extent. Employees may not particularly enjoy working in the organization simply because of rewards that will further their wealth and career. If employees do not enjoy the work environment, they are less inclined to stay let alone exert additional effort to innovate for the greater good of the organization. Instead, in order to reach integrated motivation, there is a need for relatedness (Ryan and Deci 2000; Ståhlberg 2018). A culture of enablement is about reaching beyond identified motivation into integrated motivation; the aim is to reach as perfect goal congruence as possible. This means that in addition to autonomy and competence, a culture of enablement has to promote relatedness.

A major difference between the case organizations of Ståhlberg (2018) and Pfister and Lukka (2019) was the psychological need of relatedness. Ståhlberg (2018) noted a lack of connectedness between top and middle management, a lack of management interest

towards innovative activities on an operative level and a general lack of fellowship between different parties. He suggested the implementation of meaningful relative evaluation and follow-up processes as a part of cybernetic controls as the solution. Objective, relative evaluation and timely follow-up and feedback on the results are effective ways for management to prove their interest and care towards the employees, the projects and the results (Merchant & Van der Stede 2007, 25-35), thus promoting relatedness exactly as shown in figure 9. In fact, it could be argued that any positive dealings with the top or middle management will promote relatedness; to a certain extent, the more they can be present and show support, the better.

However, Gagné and Deci (2005) do not discuss relatedness in work motivation very thoroughly, and while I support the arguments of Ståhlberg (2018), I also propose that, in the context of relatedness, management guidance, support and involvement is only one piece of the puzzle. There is also the relatedness between employees of the same division or the entire organization, and the creation of relatedness using personnel and cultural controls. In the case organization of Pfister and Lukka (2019), there seemed to be a significant emphasis on creating an intra-organizational sense of belongingness, community and fellowship. For example, the values and beliefs of the organization were understood and shared by all members, there was a common understanding of what was expected from everyone, there was readily available support and guidance not only from management but from peers as well, and the environment as a whole was collaborative and helpful throughout the organization.

Employees enjoy the autonomy and the challenge, but also feel the pressure and stress as a positive motivator. Part of this tolerance and enjoyment of high expectations is due to less formal, more social and behavioral types of MCs that support the psychological need for relatedness, as well as the other two types of psychological needs. The organization heavily emphasizes hiring or training employees in accordance to their beliefs and values, creating cohesion regarding the organizational culture. The work environment offers its employees the freedom to communicate and voice concerns without fear of punishment, there was fairness and equality in all regards, mutual respect and trust, responsibilities, support, and recognition for tasks well done. Even in high-pressure situations, there is a sense of security; failures are acceptable and support is always available. (Pfister & Lukka 2019.)

The cultural structure of the case organization of Pfister and Lukka (2019) has many characteristics that resemble those listed by Wouters and Wilderom (2008). Both organizations have a high degree of professionalism; employees are educated, experienced and, more importantly, are motivated to continuously learn, improve themselves and wish to make an impact and develop something new. The employees have a high level of ambition and a positive attitude towards performance measurement. Secondly, both organiza-

tions have a culture of experimentation, continuous development and employee involvement. Employees are granted a real sense of ownership, involvement and emotional attachment, which grants relatedness towards the project, the project team and, ultimately, the organization they work for.

Employees that relate to the managers, the mission of the organization or have a sense of belongingness in the organization as a whole will tend to be more resistant towards stress and other negative factors associated with coercive formalization. An open, easy-going culture ensures that employees can relate to each other. Therefore, personnel and cultural controls are fundamental for creating relatedness. (Pfister & Lukka 2019.) A coercive organization would lack all or most of the qualities above and would therefore not have enough of the three psychological needs to become enabling or promote innovation.

To summarize, the four characteristics of enabling formalization are helpful tools for creating an environment and structure suitable for a culture of enablement to flourish. Coercive and enabling formalization, as polar opposites, work to create or remove barriers for enablement. Enabling formalization alone, however, does not suffice. There is a need for results controls in the form of well-designed performance measurement and reward systems and understandable, effective measurement with timely feedback, support and compensation (see Ståhlberg 2018; Pfister & Lukka 2019). It is necessary in order to have a direction. Without direction, does motivation even matter? These controls, however, still leave much of the relatedness unanswered. In order to achieve relatedness, an organization has to strive consciously for unity and cultural coherence through its use of different types of controls, particularly those with social aspects, such as personnel and cultural controls.

In addition, Pfister and Lukka (2019) argue that personnel and cultural controls are fundamental for competences to meet expectations. Selection and training ensures that the necessary degrees and types of competences are met. Cultural controls are used to promote a professional, goal-oriented attitude towards self-improvement, as well as encourage an organizational culture of innovation, trust and teamwork. In fact, all of the four control types have an important role; as was shown, all controls have an impact on each other.

Ultimately, Pfister and Lukka (2019) report on the impact of joint effects different MC types, both formal and informal, direct and indirect, have on the autonomous motivation of employees. An organization seems to require all four types of controls, some designed with the characteristics of enabling formalization, in order to reach a culture of enablement and reap the joint benefits of flexibility and efficiency, as well as control and innovation.

Tessier and Otley (2012) have theorized dividing MCs into controls with a technical or a social emphasis. This can be utilized, for the purposes of this thesis, to further clarify

potential ambiguities in the theorization. In essence, there is a distinction between controls focusing on an organization's cultural values and those focusing on the processes, procedures and rules. They underline that, although technical and social controls are separate, they still have much influence over one another. Furthermore, an MC can simultaneously have an impact on MCS design, as well as social and behavioral effects. As Chua et al. (2012) pointed out, cultural controls are difficult to construct and control, and therefore require other controls to support them. On the other hand, technical controls are influenced by social controls, emphasizing the symbiosis or inter-connectedness of MCs.

For example, it can be argued that although cultural controls are mainly social controls, it is possible for codes of conducts to fill the requirements for both technical and social controls. In theory, even controls that are traditionally considered solely technical controls, such as many action controls or budgeting controls, can have aspects of social controls that contribute to forming an organizational culture. Traditional budgeting can have direct social and behavioral effects through its design choices.

The design choices may have an effect on the attitudes and behavior of employees either accidentally or on purpose. As an example, this can be seen in the unintended increase of gaming and the development of a culture of mistrust in organizations that utilize traditional budgeting (Hansen et al. 2003). The emphasis on structure, formalization and design may shift more towards indirectness, informality and social and behavioral aspects depending on the approach the organization decides to use.

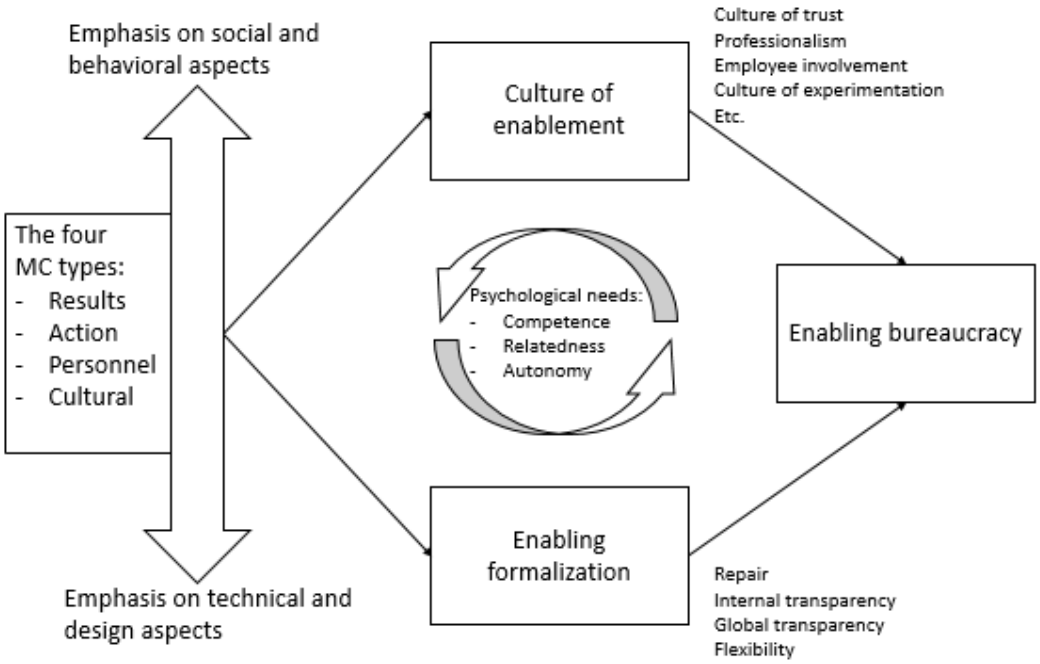

Figure 9 The concept and elements of enabling bureaucracy

Figure 9, above, is an illustration of the different mechanisms that make up an enabling bureaucracy. As was previously argued, the four different control types can have varying degrees of social or technical aspects; some have more of the former or the latter, but most have at least some amount of both. The figure shows the four types of controls in a specific order, but that order may change depending on the particular composition of the control in question. For example, in general, it was shown that most cultural controls lean more towards social aspects and most action controls lean more towards technical aspects, but this may not always be the case. Technical aspects denote the amount of rules, procedures and direct formality the control has, whereas social aspects denote the informal, indirect effects on behavior and values. The bar on the left represents the shifting nature of the true typology of a MC.

Depending on the emphasis, a control heavily leaning towards technical aspects will have a stronger effect on creating enabling formalization, whereas a control leaning in the opposite direction will have a stronger effect on creating a culture of enablement. Both are important factors in managing the psychological needs of the employees. Without enabling formalization, there is no autonomy and no structures necessary for supporting and maintaining the culture of enablement. Without controls aimed at creating a culture of enablement, the employees will lack relatedness, as well as support needed for the two other psychological needs, leading to lower autonomous motivation; there will not be enough motivation to utilize the enabling structures of the organization, or they may even be misused or implemented wrongly.

The circular arrows in the center represent the interrelatedness of both the different control types and the two building blocks of enabling bureaucracy. It is the joint effect of all four MC types that together either coerce or enable, and apart from having a joint effect, they can also have an effect on each other. Their composition and interplay also invariably dictates whether an organization can fulfill the psychological needs or not.

The two components, enabling formalization and the culture of enablement, form an enabling bureaucracy. It has a high degree of procedures, rules and regulation through enabling formalization structures (Adler & Borys 1996) and positive social and behavioral effects through cultural and informal, indirect controls. These components mutually support each other. The benefit or ultimate goal of an enabling bureaucracy is to reach both organizational and employee ambidexterity. It is in the hopes of the organization to have high flexibility and efficiency in its processes and structures, as well as promote high efficiency and innovation in its employees, while maintaining a high degree of control. Positive social and behavioral effects through a joint effort of different controls are vital for the success, particularly in order to mitigate the negative effects of control and to motivate and promote commitment and innovation.

Due to the interplay of different controls, the maintenance of enabling formalization and the culture of enablement is vital. A slight change in one or the other may have consequences on the balance of the whole organization, and faltering in one aspect will inevitably affect other aspects as well. In a worst situation, the coercion may start a chain reaction, spiraling out of control. The results may be a decrease in flexibility and efficiency, the birth of a culture of coercion, a mass exodus and a loss of market shares, to name a few.

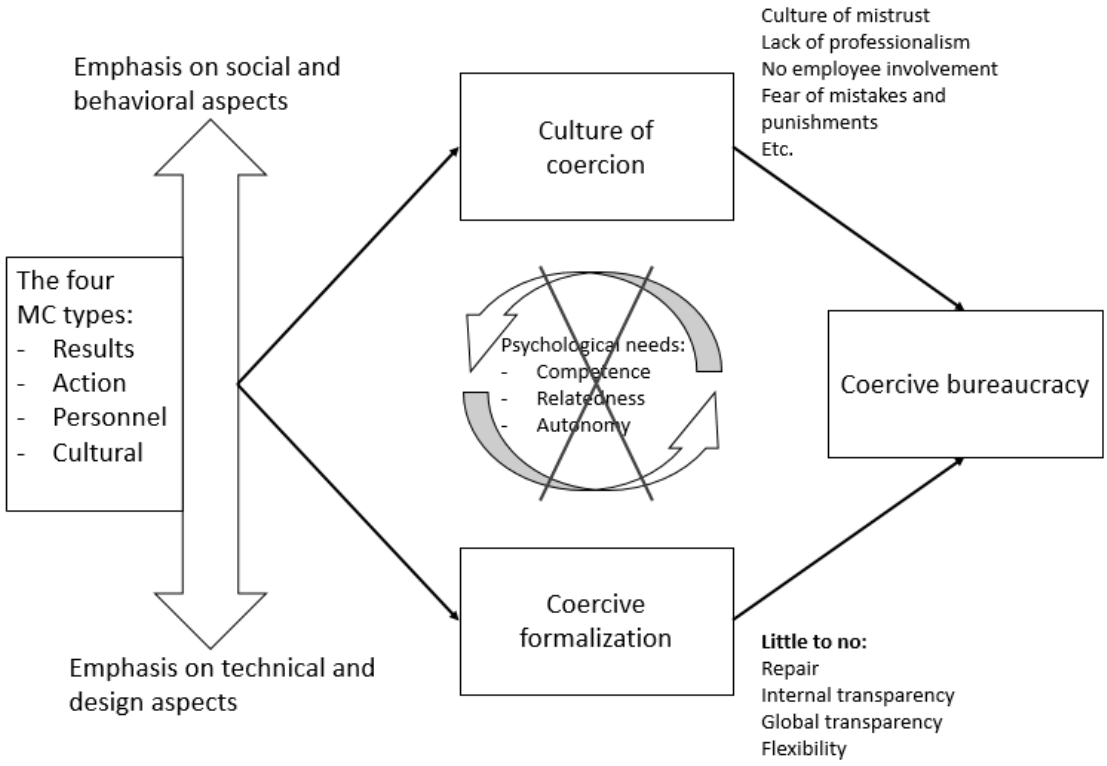

Figure 10 The concept and elements of coercive bureaucracy

A coercive bureaucracy, illustrated in Figure 10, is not quite the opposite of an enabling bureaucracy. The ultimate aim of a coercive bureaucracy is to maximize organizational efficiency through rules, procedures and set structures and processes while disregarding any notion of innovation or positive social and behavioral effects. It is designed in a way that it promotes a culture of coercion; a culture of mistrust, unprofessionalism, lack of employee involvement, a culture of fearing mistakes, etc. Its more direct controls are designed with a lack of the four characteristics of enabling formalization. The end-result is an organization that lacks all of the three psychological needs necessary for autonomous motivation and, ultimately, innovation.

To conclude, I argue that enabling formalization and a culture of enablement are the antecedents for creativity and innovation, as well as many other benefits. It is not the

design principles of repair, flexibility and transparency in MCs that makes an organization enabling, it is the intention of enablement throughout the entire organization, encouraged by the use and interplay of appropriate structures and controls. The key is in striking the right balance. All of the four types of controls can have both technical and design aspects, as well as social and behavioral aspects; the former is simply more prominent in direct, formal controls like action controls. The latter is more prominent in less formal, less direct MCs like personnel and cultural controls. Neither can properly function without the support of the other. To fully utilize enabling formalization and become an enabling bureaucracy, an organization requires both. The different aspects work in unison, supporting and molding each other (Tessier & Otley 2012).

A list of different factors might never be all-inclusive, as all organizations and industries have their distinctive characteristics and differences. In general, it should be expected that an organization that respects, cares and trusts its employees will most often receive the same treatment in return. The more formal aspects of selection, training, enabling formalization and results controls can be used to institutionalize and internalize the culture and values of the organization. In such a case, it is to be expected that the employees understand what is required of them and will accept the set controls as necessary.

Rules and control were applied in Weber's ideal bureaucracy not only to increase efficiency but also to combat apathy, role ambiguity and role stress. Unfortunately the effect was the opposite; the coercive nature of the rules made it so employees only "work to the rules", exerting the minimal acceptable level of performance. (Wren & Bedeian 2008, 229-233.) The same apathy related to role ambiguity will still preside if no rules or controls are specified, but the apathy related to too much control depends on the nature of control. The properly proportioned pressure and guidance from enabling action controls together with the ambitious but open-minded and supportive culture of enablement might be enough to cover the pitfalls of Weber's original model.

5.4 Conclusions

Both the original article (Adler and Borys 1996) and studies stemming from it (see Hoy & Sweetland 2000; Ahrens & Chapman 2004; Wouters & Wilderom 2008; Chapman & Kihn 2009; Henttu-Aho 2016; Ståhlberg 2018; Janka 2019) seem to draw different conclusions on what enabling and coercive formalization are supposed to represent. Some would strictly define them as different MC design approaches (Ahrens & Chapman 2004; Chapman & Kihn 2009; Henttu-Aho 2016), whereas others interpreted them as differences in management and leadership approaches (Hoy & Sweetland 2000). Some saw them as a hybrid of both (Janka 2019) or as an important component of a larger framework (Ståhlberg 2018).

After a thorough analysis of the concept of enabling and coercive formalization, its components and its different interpretations, I argue that it can be interpreted as both a MC design approach and a difference in management and leadership approaches. However, in order to clarify the concept, its terminology and its intentions, a distinction should be made between enabling and coercive formalization as MC design characteristics, enablement and coercion in organizational culture, leadership and management approaches, and the concept of enabling and coercive bureaucracy.

Enabling formalization should be defined in the context of MCs as the formal, direct rules and procedures that steer and guide employees to perform the right actions. The emphasis is on promoting cooperation, trust and empowerment, and to build organizational structures that support enablement in the organization. Ultimately, the aim is to create an MCS that facilitates ambidexterity, both in organizational design and in utilization and implementation. In the initial analysis, it was discovered that these characteristics were fulfilled only in a very specific interpretation of action controls. However, even this did not answer all of the ambiguities.

As Ståhlberg (2018) concluded, enabling formalization with its four design characteristics is an important component in a larger picture, but requires the support of other structures in order to facilitate innovation. Therefore, enabling formalization in the form of enabling action controls is certainly beneficial for innovation by providing adequate prerequisites for it, but it alone could not spark innovation.

Coercive formalization in MC design, on the other hand, is formal, direct rules and procedures that aim to force and threaten employees into compliance. Its ultimate aim is to maximize efficiency in, for example, production or other less creative environments. Therefore, it is argued that there is no inherent need to cater to the social and behavioral well-being of employees.

The other organizational structures that support or hinder the enablement or coercion of an organization have been labelled as the culture of enablement and the culture of coercion. In a culture of enablement, these less formal, less direct MCs focus mainly on social and behavioral aspects of control, but also support the more formal structures of the organization. In fact, the different MCs work in a symbiosis, requiring support from each other to function properly. The aim is to create and maintain the positive social and behavioral effects necessary for ambidexterity and particularly the utilization and implementation of it. Efficiency requires suitable technical and design choices, but innovation and the proper utilization of the enabling controls require the three psychological needs. Thus, there is a need for results, personnel and cultural controls, even though they do not fit a stricter definition of enabling formalization.

A culture of coercion consists of the less formal, less direct MCs that focus on supporting the goal of maximizing efficiency, even at the cost of negative social and behavioral effects. When there is no need for innovation, there should be no inherent need to fulfill the three psychological needs; external motivators suffice.

Furthermore, however, I argue that the connection of enabling and coercive formalization to certain types of controls is not an efficient way of defining the concept. Instead, following the theorizations of Tessier and Otley (2012), controls should be viewed as consisting of social and technical aspects; the latter being the rules and procedures that affect processes and the former the aspects that affect organizational culture, values and goal congruence. Because some MCs are difficult to categorize as either one or the other, and the same control type can have controls with either aspect, the enablement or coercion of a single control cannot be solely determined based on its control type. In fact, the coercion or enablement should be considered from the point-of-view of the whole organization and the composition of its entire MCS.

In essence, the propositions of A&B are largely plausible; an organization can design many of its MCs with a high or a low degree in the characteristics of repair, flexibility and transparency. It may very well lead to an increase/decrease in efficiency, flexibility and positive/negative social and behavioral effects, but I argue that this is not guaranteed. An organization has to take into consideration the joint effect different MCs have on the ultimate enabling or coercive nature of the organization, as was proposed by Janka (2019).

This thesis contributes to the literature on the concept of enabling and coercive formalization by clarifying the concept and its terminology. The concept analysis also contributes to the literature regarding the control and innovation dilemma by analyzing and comparing conflicting literature with the revised concept. It also provides general insight into how organizations can design MCs and MCSs.

The limitations of this thesis are opportunities for future research. Being a conceptual analysis, the theorizations will require empirical testing and eventual further refinement. For example, future research could test how well the theory on the joint effort of enabling formalization and the culture of enablement functions in a case organization, or whether there are yet unknown factors to take into consideration in enablement or the control and innovation dilemma. It would also be relevant to conduct quantitative experiments or surveys in order to find out whether the joint effort of all control types is necessary or whether there is an emphasis on certain MCs.

5.5 Summary

In this thesis, I have conducted a conceptual analysis on the concept of enabling and coercive formalization by Adler and Borys (1996), from the viewpoint of management accounting, and more specifically, management control design and the control and innovation dilemma. The article by Adler and Borys (1996) is considered a seminal work that has potentially much to offer, particularly concerning MC and the control and innovation dilemma. However, there is not a complete consensus on the definition, the interpretation or the applicability of the concept of enabling and coercive formalization. Furthermore, the concept seems to run into some theoretical and conceptual issues when applied to MC literature. (See e.g. Hoy & Sweetland 2000; Ahrens & Chapman 2004; Chapman & Kihn 2009; Jørgensen & Messner 2009; Henttu-Aho 2016; Janka 2019.)

The purpose of this thesis was to analyze the concept of enabling and coercive formalization and the terminology used by A&B in an attempt to clarify them. The concept was divided into its core components and the basic definitions were analyzed before contemplating their relation to MC. The thesis largely followed the conceptual analysis framework of Puusa (2008), and the analysis between enabling and coercive formalization and MC was conducted utilizing the four control types framework by Merchant and Van der Stede (2007).

Initially, it became apparent that there is a distinct lack of thorough refinement of the basic components of 'enabling', 'coercive' and 'formalization. Studies concerning the concept of enabling and coercive formalization have most often only very briefly explained them or simply bypassed the explanations entirely. This has led to a considerable difference in interpretations. (See e.g. Hoy & Sweetland 2000; Ahrens & Chapman 2004; Chapman & Kihn 2009; Jørgensen & Messner 2009; Henttu-Aho 2016; Janka 2019.)

A thorough review and analysis of the concept and its components was conducted, and almost paradoxically, enabling formalization seems to have a strong divide between its more formal and direct design and its strikingly informal and indirect 'use'. It can be described as a sort of hybrid between directness, indirectness, formal and informal, whereas coercive formalization resembles more the typical mechanistic organization structure. The results of this thesis indicate that, for clarity's sake, enabling and coercive formalization can be divided into a technical and design aspect and a social and behavioral aspect. The intention of enabling formalization seems to be to reach ambidexterity and positive social and behavioral effects through formal structures and procedures designed with the characteristics of repair, flexibility and transparency that promote a more informal and indirect culture of management approach.

These characteristics were used as a basis when comparing the concept of enabling and coercive formalization with the four control types framework of Merchant and Van

der Stede (2007). Enabling formalization should have a relatively high degree of formalization, have both direct and indirect approaches, help employees perform tasks 'better' and support positive social and behavioral aspects. Coercive formalization should have a high degree of formalization, have a direct approach and disregard the social and behavioral well-being of employees.

When compared to the four control types framework (Merchant and Van der Stede 2007), it was particularly difficult to find a suitable match for enabling formalization. Only action controls were clearly suitable for coercive formalization and, if the definition was slightly relaxed, also suitable for enabling formalization. This result was very surprising when considering the wide use of enabling formalization in different studies.

When the results of the analysis were further compared with literature surrounding the control and innovation dilemma, it became apparent that enabling action controls do not seem to be sufficient for the intended use. In essence, they cannot singlehandedly fulfill all of the three psychological needs, described by Ryan and Deci (2000), which are considered requirements for innovation (Amabile 1988). The three psychological needs are relatedness, competence and autonomy (Ryan & Deci 2000).

Other controls must be used in support and, in fact, enabling and coercive formalization should rather be considered a combination of several different control types, as suggested by Janka (2019). This, however, poses a dilemma. More indirect and informal controls, such as cultural controls, seem to be necessary in order to fulfill the ambitions of enabling formalization, and furthermore, they suit the social and behavioral aspects of enabling formalization, but how can something informal be labelled formal?

Essentially, from a design perspective, the description of enabling formalization is very narrow, but the concept has other, less formal and less direct aspects that complicate its categorization. To resolve this issue, this thesis recommends dividing enabling and coercive bureaucracies into two constituent parts: enabling and coercive formalization and the cultures of enablement and coercion. Enabling and coercive formalization represent the technical and design aspects of the original concept and the cultures of enablement and coercion represent the social and behavioral aspects.

More formal and direct controls, such as action controls lean more towards the technical and design aspects of enabling and coercive bureaucracies, whereas more informal and indirect controls, such as personnel and cultural controls lean more towards the social and behavioral aspects of enabling and coercive bureaucracies. In an enabling bureaucracy, this combination of different enabling controls should fulfill all of the three psychological needs and lead to innovation, whereas a coercive bureaucracy would have a complete lack of the psychological needs, as there is no need to innovate. It is important to note that the emphasis on technical and design aspects or social and behavioral aspects will differ from one organization to another and most controls will have some elements of both aspects.

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