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Individual Performance Measurement Systems

The effects on creativity and coordination

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ABSTRACT

The aim of this study is to examine how a performance measurement system designed and used on an individual level (i.e. designed by the employees themselves) can affect creativity and coordination. For this purpose, a qualitative case study was conducted, using a world leading IT-company, Digital Inc, as object of study. We show that individual performance measurement systems can both promote creativity and coordination, when used interactively (face-to-face communication, intensive use by superiors, intensive use by subordinates). We combine Moulang's (2015) theory on the relationship between interactively used PMS and psychological empowerment, with Adler & Borys' (1996) theory on enabling formalization. By doing this, we show how the enabling design features (global transparency, internal transparency, flexibility and repair) of a performance measurement system (PMS) are affected when the PMS is used in an interactive way, and how this impacts individual motivation. In contrast to previous research advocating user involvement when designing and implementing an enabling control tool, we conclude that for an individually designed PMS, managerial involvement is more important for the enhancement of individual motivation. Finally, we conclude that an individual PMS, despite a non-frequent and non-intensive use, can affect intrinsic motivation, and thereby creativity. The autonomy and responsibility characterizing an individual PMS, signals organizational support and thereby affects intrinsic motivation positively (Amabile, 1998).

Acknowledgements

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1. Introduction

The consensus on management control has traditionally been based on the idea that management control systems (MCS) are used to increase efficiency and reduce variety, by imposing formal rules, standardized procedures and routines (Anthony 1965). Today's economy poses new demands on management control systems; creativity and innovation are primary sources of competitive advantage, indicating that companies need to closely and carefully manage their intellectual capital (Ireland, Hitt 1999).

Considering the above, management control systems ought to be used in a way that does not constrain creativity (Chang & Birkett 2004). There are two streams of research on this topic; those arguing that management control systems inhibit creativity (Amabile 1998, Amabile & Gryskiewicz 1987, Abernethy & Lillis 1995) and those claiming that management control systems can promote creativity (Abernethy & Brownell 1997, Ahrens & Chapman 2004, Bisbe & Otley 2004, Brown & Eisenhardt 1998, Cardinal 2001, Chapman 1998, Davila, Foster & Li 2009, Ditillo 2004). This thesis will contribute to the stream of research advocating the ability of management control systems to positively impact creativity in organizations.

Our case company, Digital Inc, has implemented a management control system called "Individual Objectives and Key Results" (IOKRs). All the employees are responsible for formulating their own objectives and key results, suitable for their specific work tasks and responsibilities. I.e, the individual OKR-system is an individual performance measurement system (PMS), where the employees themselves design the goals and standards. This implies that there will be numerous performance measurement systems within the organization - one for each employee. The purpose of individual OKRs is to promote autonomy and bottom-up initiatives, which the employees at Digital Inc positively associate with creativity. The employees at Digital Inc perceive autonomy and responsibility to be important factors in their daily work. (Sales division: Sales Manager, 2015-10-15)

"*You cannot tell these individuals (the employees at Digital Inc) what to do, they need to tell you what they think is the best use of their time and talent*" (Product development division: Engineer, 2015-10-28)

The existence of multiple individual performance measurement systems might however aggravate the alignment between employees and the organizational goals, which makes it important to consider coordination when analyzing the control system. The focus of this study will therefore be to investigate the role of individual performance measurement systems in maintaining and enhancing creativity and coordination. In Digital Inc, the individual OKR-system is supposed to serve this purpose. The individual OKR-system is emphasized as an important organizational control tool, and it is a way for Digital Inc to ensure that each employee contributes to company goals. However, an uneven use of the IOKRs in Digital Inc Sweden has been observed, which raises questions on why the system is used differently and what implications this has for creativity and coordination. Therefore, the **use** of the IOKR-system will be investigated in the two Swedish divisions; the product development division and the sales division. Moreover, to fully understand the implications of a control system, the **design** of the system has to be taken into account (Adler & Borys 1996).

Our research questions are thus:

1. *How is the individual performance measurement system designed and used in the respective divisions in Digital Inc?*
2. *How can the design and use of individual performance measurement systems affect creativity and coordination?*

"Research focused on the individual level of analysis is important because it is plausible that psychological attributes are implicated in the relationship between MCS use and creativity, and this makes it distinctly different from the direct relationship between MCS use and innovation previously explored" (Moulang 2015, p. 521). I.e. previous research has taken for granted the direct relationship between the use of certain management control system and creativity, and has not explored how this creativity emerges (Bisbe & Otley 2004, Henri 2006). To understand the emergence of creativity, it is relevant to focus management control research on the individual

level. This further supports the choice of focusing our research on performance measurement systems designed on an individual level.

1.1 Outline

This paper is organized in the following way. In the first section we will present previous research within the field of management control and how management control affects creativity. Thereafter, our conceptual framework is presented, where we synthesize existing research making it suitable for analyzing our empirical findings. Furthermore, we describe our method, covering empirical method, research approach, the case, data collection, data analysis and credibility and method criticism. The method-chapter is followed by a presentation of the empirical data, which is structured according to the separate divisions. This empirical chapter is summarized in section 4.5, "concluding remarks", where we discuss our empirical findings. Thereafter, we analyze our empirical findings by applying the conceptual framework. Finally, we present our conclusions, limitations of the study and suggestions for future research.

2. Previous Research and Conceptual Framework

2.1 Previous Research

Professional service firms, operating within the field of accounting, management consulting and engineering, are faced with great challenges on how to manage intellectual human capital. Intellectual human capital, defined as the competencies of professionals, is crucial for creativity. The difficulty is how to organize structural capital, defined as "the extent to which organizational structures support and encourage the production of creative ideas, and knowledge building within the firm" (Chang & Birkett 2004, p.9), so that it supports the human capital, and not in any way constrains creativity. (Chang & Birkett 2004). It is however important to align the creative efforts and make sure they contribute to the achievement of organizational goals. Hence, it is important to keep coordination in mind, while promoting creativity.

2.1.1 Creativity Defined

While organizational innovation has been the main focus of past accounting research (Bisbe & Otley 2004, Henri 2006), research concerning the management of creativity is still in the process of development (Adler & Chen 2011, Kachelmeier, Reichert & Williamson 2008, Kachelmeier & Williamson 2010, Moulang 2015). There are various definitions of creativity, and occasionally, previous research has used the concepts of creativity and innovation interchangeably (Martins & Terblanche 2003). Nyström (1979) makes a distinction between creativity and innovation; defining creativity as the "cause", and innovation as the "effect", implying that innovation is the process of implementing creative ideas. Moreover, Nyström (1979) and Amabile (1988, 1996), define creativity as something occurring within individuals, while innovation occurs at a higher level, involving entire organizations or groups of people. In line with this, creativity can be defined as the thought process of generating ideas that are both new and useful (Amabile 1988, Ford 1996, Oldham & Cummings 1996, Perry-Smith & Shalley 2003).

Relevant for our study will be the concept of creativity as defined above; a thought process, occurring within the individual, with the purpose of generating ideas that are both new and

useful. Given that our research will be focused on the individual level, the definition of creativity as something occurring within the individual (rather than the definition of innovation, as something occurring at a higher level), is relevant. We will also examine those studies that discuss and define innovation in line with our definition of creativity.

2.1.2 Coordination Defined

The concept of coordination refers to the task of effectively managing potential interdependencies among tasks and resources (Malone & Crowston 1994). Management control systems can foster coordination by defining desirable outcomes, procedures and standards (Adler & Chen 2011). Furthermore, management control systems can serve the purpose of framing the strategic domain and scope of the organization, and thereby provide focus and coordinate the organizational members (Simons 1995).

Regarding performance measurement systems (PMS) and coordination, there are researchers arguing that PMS have the ability to direct behavior within an organization. By explicating the means-end relationships that are consistent with the company strategy, performance measurement systems can function as a coordinating tool (Henri 2006, Widener 2007). It has furthermore been found that PMS can have a positive impact on employees' understanding of common goals and strategies within the organization (Nilsson & Ritzén 2014, Hall 2008).

2.1.3 Coordinating Creative Tasks

It is assumed that uncertain tasks and environmental conditions require creativity, while complex and interdependent tasks have to be coordinated by the use of formal controls. (Adler & Chen 2011, Maister 2003). Formal controls are defined as rules, standards and operating procedures that are the more visible, objective components of the control system (Anthony, Dearden & Bedford 1984). There are some researchers arguing that companies should focus either on creativity or coordination (Tushman & O'Reilly 1997, Lawrence & Lorsch 1967), while others claim that creativity and coordination can be combined (Adler & Borys 1996, Simons 1995). In line with this, the role of management control in creative settings has been discussed and highly debated. This debate is interesting to highlight, since creative organizations are in need of both

creativity (due to uncertain tasks and environmental conditions) and coordination (due to complex and interdependent tasks). In the following section, we will therefore present literature discussing the relationship between creativity and management control (which can function as a coordinating mechanism).

2.1.3.1 Does Management Control Inhibit Creativity?

There is research arguing that management control systems (MCS) are negatively correlated with the performance of highly uncertain tasks that require creativity (Amabile 1998, Abernethy & Lillis 1995, Amabile & Gryskiewicz 1987). It has been claimed that intrinsic motivation is crucial for performing creative tasks successfully (Amabile 1996, Amabile, Goldfarb & Brackfield 1990, Mainemelis 2001, Mainemelis & Ronson 2006), and that intrinsic motivation can be undermined by formal organizational controls (Amabile 1996, Shalley, Gilson & Blum 2000). In line with this, there is existing research highlighting the importance of people for creativity (Lawson & Samson 2001) and the fact that people are the driving force for change, not structures and management control mechanisms (Matzler et al. 2010).

Another stream of literature supports the notion that MCS can positively impact the performance of creative activities in knowledge-intensive firms and in settings such as new product development (Abernethy & Brownell 1997, Ahrens & Chapman 2004, Bisbe & Otley 2004, Brown & Eisenhardt 1998, Cardinal 2001, Chapman 1998, Davila, Foster & Li 2009, Ditillo 2004). Simons (1995) and Davila (2009) argue that formal management control systems can function as a facilitator for creativity (Simons 1995, Davila, Foster & Oyon 2009). In line with this, Adler & Borys (1996), argue that formalization needs to be **enabling** for creativity to be enhanced. Simons in particular, has developed a holistic framework that has been widely used in previous research. Simons (1995) suggests that the balancing of different levers of control can create dynamic tensions, which are useful when operating in uncertain environments where creativity is important. The control levers are: belief (formal visions, values and mission statements that inspire the search for new opportunities), boundary (framing and limiting the search domain), diagnostic (used for coordinating, planning and monitoring the strategy implementation process) and interactive (used by top managers to stimulate the creation of new

ideas, by focusing attention on strategic uncertainties, potential opportunities and potential threats).

2.1.3.1.1 Performance Measurement Systems and Creativity

Performance measurement systems (PMS) are considered to be a formal management control system (Simons 1995, Wouters & Wilderom 2008), and the following section highlights literature discussing the effects on creativity from using PMS. Performance measurement systems are, according to Simons' definition, normally used as diagnostic control systems, but managers have the possibility to occasionally use these control systems interactively (Simons 1995).

Traditional performance measurement systems are used to monitor performance and provide feedback, and they are "generally regarded to serve the needs of top managers" (Englund & Gerdin 2015, p.1). There is however research emphasizing the use of PMS to inspire creativity and autonomy (Kaplan & Norton 1996). Regardless of the purpose (control and/or inspire), it has been argued that it is crucial to involve employees in the design and implementation process of performance measurement systems for organizations to benefit from the use of PMS (Wouters & Wilderom 2008, Hallgren 2009, Meyer 1995).

There are researchers examining the effects from using performance measurement systems in knowledge intensive settings that have concluded that PMS risk constraining creativity. The individuals, whose performance is being measured and evaluated, might experience anxiety and stress from this, which in turn impacts the quality of their work negatively (ter Bogt & Scapens 2012). Furthermore, problems have been identified with the use of PMS in highly unpredictable settings, where creativity is required. Due to unpredictability, managers run the risk of imposing targets on employees that are quickly outdated, which turn risks undermining employees' perception of the reliability of performance measurement systems. (Giovannoni & Maraghini 2013). Finally, Henri (2006, p. 546) argues that a "diagnostic use of PMS exerts negative pressure on capabilities of market orientation, entrepreneurship, innovativeness, and organizational learning".

There is on the other hand, a stream of research arguing that performance measurement systems potentially can play a role in organizations' attempts to encourage creativity (Amabile & Gryskiewicz 1987, Davila, Foster & Oyon 2009). Davila, Foster & Oyon (2009) argue that this type of control system can create the motivational environment that enhances creativity. In line with this, it is claimed that performance measurement systems positively impact individuals' creativity by providing useful feedback and communicating and setting a direction for the employees (Moulang 2015, Simons 1995, Widener 2007).

There are researchers specifically emphasizing the importance of using performance measurement systems **interactively** (Simons 1995) to be able to positively affect creativity (Moulang 2015). The interactive use can expand opportunity seeking, focus attention, enforce dialogue between organizational members and promote creative approaches when dealing with strategic uncertainties (Simons 1995, Bisbe, Batista-Foguet & Chenhall 2007). It is a way of enhancing idea generation in the organization (Davila, Foster & Oyon 2009) and stimulate discussions around the value creating processes within the company, which in turn can guide and inspire new behaviors (Nilsson & Ritzén 2014). By using a performance measurement system interactively, managers can promote learning and reflection, and avoid that the control system is perceived as a traditional control tool, solely serving top managers' needs (Neely & Al Najjar 2006). Moulang (2015) introduces a theory regarding interactively used PMS and its effects on employee motivation, and thus creativity. Moulang (2015) concludes that an interactive use of PMS enhances individual creativity, through the creation of psychological empowerment. This paper is particularly interesting because it advocates the need to focus more management control research on an individual-level. Considering our definition of creativity, as something occurring within an individual, it is relevant to examine research discussing the relationship between management control systems and individual motivation, and how this in turn affects individual's creativity.

2.1.4 Identifying the Research Gap

Traditionally, performance measurement systems have been regarded to serve the needs of top managers (Englund & Gerdin 2015) and they are commonly designed for a group of people (organized in teams, business units etc.) (Moulang 2015, Simons 1995, Otley 1999). Moulang (2015) investigates how performance measurement systems designed and implemented by managers can impact creativity, by examining how individual motivation is affected. In line with Moulang's (2015) research, several other researchers have observed that the individual employees, (Lawson & Samson 2001) and the individuals' motivation (Adler & Chen 2011, Moulang 2015, Amabile, Goldfarb & Brackfield 1990, Mainemelis 2001, Mainemelis & Ronson 2006, Amabile et al. 1996) are important for creativity.

Given the importance of individuals for creativity, and the ability of performance measurement systems to provide focus and direction, it is interesting to examine the potential consequences of using performance measurement systems on an individual level. I.e., what are the effects of having multiple performance measurement systems, designed by the employees themselves, to suit their specific responsibilities and work tasks? More specifically, we want to investigate the effects on individual motivation, and thus creativity, when a performance measurement system is designed and used on an individual level. Moulang's (2015) research assumes that the manager is the designer of both the structure and the content of a performance measurement system. On the contrary, we investigate a performance measurement system where the manager designs the **structure** of the system, while the employees design the **content** (i.e. the performance measures).

Furthermore, assuming there are multiple, individual, performance measurement systems within an organization, how do you align and coordinate the employees? In line with this, it is interesting to investigate whether it is possible to achieve coordination when there are multiple individual PMS present in an organization.

2.2 Conceptual Framework

In the following section, we will present the theoretical framework that will be used to analyze our empirical findings. We will begin by introducing Adler & Borys' (1996) theory on enabling formalization.

According to Amabile (1998), there are three factors that can influence individuals' creativity: expertise, creative thinking skills and motivation. All three factors can be influenced by managers, but motivation is the factor that can most easily be influenced (least difficult and least time consuming) by managers and by the work environment.

Adler & Borys (1996) contribute to existing research within management control by concluding that high or low levels of motivation and satisfaction (attitudes) will depend on the type of formalization applied (enabling or coercive), rather than the degree of formalization in place. The authors argue that attitudes will be positive as long as formalization is enabling, regardless of whether formalization is high or low. Furthermore, Adler & Borys (1996) claim that enabling formalization is necessary if creativity is to be promoted within an organization. However, the authors do not in detail elaborate upon **how** enabling formalization can affect motivation and thus creativity. Adler & Borys' (1996) theory of coercive/enabling formalization will therefore be combined with theories elaborating upon how management control systems affect the emergence of individual motivation, and thereby how management control systems through motivation can promote creativity (Amabile 1998, Adler & Chen 2011, Moulang 2015).

2.2.1 The Design Features of Enabling Formalization

Enabling formalization is characterized by transparency, adaptability, initiative, spontaneity and information sharing, while coercive formalization is associated with efficiency, predictability and compliance (Ahrens & Chapman 2004, Henri 2006, Wouters & Wilderom 2008, Van Der Stede 2001). Whether formalization is enabling or coercive will depend on the specific features of the control systems applied within an organization. These four design features are: **repair, internal transparency, global transparency and flexibility.** (Adler & Borys 1996).

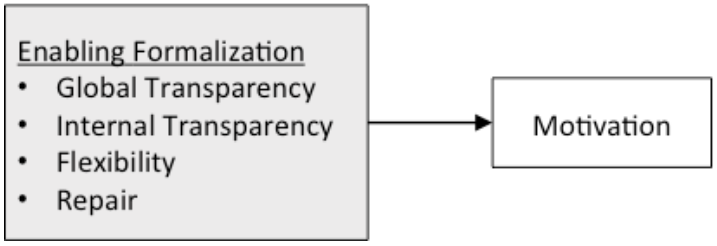
Under a coercive logic, **repair** features are characterized by systems that are designed for senior managers to be able to closely monitor subordinates' actions. The enabling logic on the other hand, implies that employees have the ability to improve organizational standards and rules if they perceive them as dysfunctional. (Ahrens & Chapman 2004, Adler & Borys 1996). Applying this to control systems, it could for example mean that employees have the ability to modify performance measures (Wouters & Wilderom 2008). The second feature, **internal transparency**, implies very little insight into how processes work and how they are designed under a coercive logic. Enabling procedures are in contrast designed to provide users with high transparency and understanding of the rationale behind the process. **Global transparency** refers to the level of employee interaction with the broader organization and environment. Global transparency is achieved when employees can use the management control system to relate to the organizational vision or strategy statement (Jordan & Messner 2012). Coercive controls reduce the level of interaction, and tasks are instead distributed and delimited. Under an enabling logic, interaction is high and employees understand where their own tasks fit into the whole. Finally, the level of **flexibility** differs under the coercive and enabling logic. Coercive procedures are defined in detail, with little or no room for deviations. The opposite holds for enabling procedures; deviations are seen as learning opportunities, not only as risks. Furthermore, under the enabling logic, the flexibility feature allows users of the control system to adjust the system so that it is more compatible with local conditions (Ahrens & Chapman 2004, Adler & Borys 1996).

Besides the four design features, the design and implementation of enabling formalization is characterized by high employee (user) involvement. The design process of enabling formalization is iterative and continuous improvements are made. In a similar manner, the implementation process is adaptive, flexible and inclusive; employees' skills and opinions are important. (Adler & Borys 1996, Wouters & Wilderom 2008, Englund & Gerdin 2015, Jordan & Messner 2012).

Adler & Borys (1996) argue that enabling formalization leads to higher employee motivation. They do however not explain how this is achieved, i.e. how enabling management control systems positively affect motivation (and thereby creativity and coordination). We will therefore

in the section below thoroughly examine the relationship between individual motivation and creativity and coordination.

Figure 1. Adler & Borys (1996)



2.2.2 Linking Individual Motivation to Creativity and Coordination

It is suggested that intrinsic and extrinsic motivation are two ends of a spectrum, and between these there are two intermediate forms of motivation; introjection and identification (Adler & Chen 2011). Below, we will describe intrinsic, identified and extrinsic motivation in detail, as these types of motivation are the most useful for analyzing our empirics. Moreover, the relationship between motivation, creativity and coordination is explained, as well as the impact of performance measurement systems on this relationship.

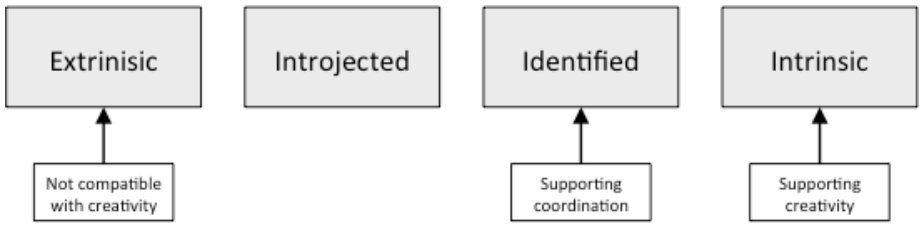
Extrinsic motivation is the form of motivation least compatible with the performance of creative activities (Adler & Chen 2011). An individual experiences extrinsic motivation when he/she performs a certain activity because it leads to a separable outcome of financial (e.g. reward, bonus, promotion) and/ or non-financial value (e.g. status) (Ryan & Deci 2000). However, external rewards (rewards, bonuses, promotions) can positively impact intrinsic motivation, if the employees consider the rewards to be informative and autonomy-supportive. A reward is considered to be informative when it reflects the employees' performance and improvements. (Adler & Chen 2011).

The type of motivation that has the clearest linkage to the performance of creative activities is **intrinsic motivation** (Amabile 1998, Adler & Chen 2011, Amabile, Goldfarb & Brackfield 1990, Mainemelis & Ronson 2006). An individual experiences intrinsic motivation when he/she

acts without any external pressures or rewards, but simply because the activity is an opportunity to learn, explore and realize his/her potential (Coon & Mitterer 2010). I.e., an employee that is intrinsically motivated will engage in work activities because of the enjoyment and the challenges associated with the tasks. This form of motivation is closely related to a person's interest and passion. However, employees' passion about specific work tasks (intrinsic motivation) can be lost if no managerial effort is spent on trying to sustain this passion. Managers need to structure the work tasks and the work environment in ways that positively affect employees' intrinsic motivation. (Amabile 1998). More specifically, Amabile (1998) claims that there are six managerial practices that can affect individuals' intrinsic motivation, and thus creativity: challenge, freedom, resources, work-group features, supervisory encouragement and organizational support. It is highlighted that employees need to feel that their work is important for the organization, and that supervisors as well as the organization as a whole trusts and encourages them to come up with creative solutions.

Identified motivation is based on the congruence between individual's goals and those of the organization (Ryan & Connell 1989). Individuals can be motivated by group goals (e.g. organizational goals) when their identity as a member of a certain group has sufficient psychological importance for them (Ashforth & Mael 1989, Ashmore, Deaux & McLaughlin-Volpe 2004). When individuals identify with a group, they can be motivated to strive towards collective goals and rewards, even though it might not be beneficial to them as individuals (Van Knippenberg 2000, Ellemers, De Gilder & Haslam 2004). Control and coordination is therefore best supported by identified motivation (Adler & Chen 2011).

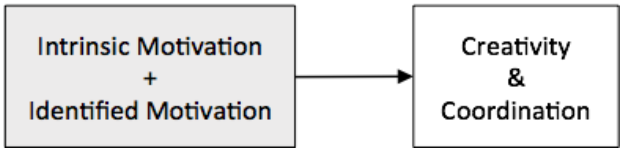
Figure 2. Types of Motivation



Adler & Chen (2011) question the common assumption that only one type of motivation can be operative at any given time. Instead, they draw upon motivation theorists claiming that different

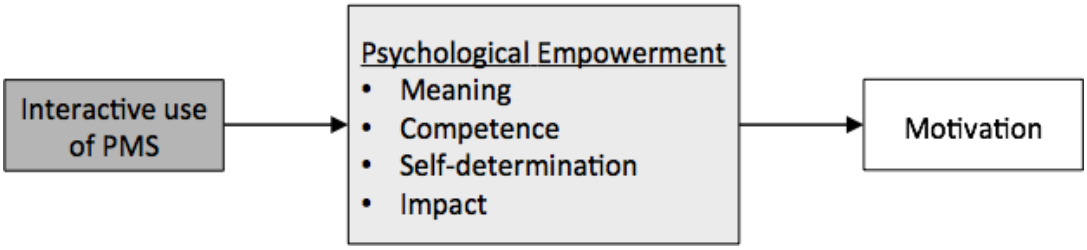
forms of motivation can be combined (Adler 1993, Amabile 1996, Bonner et al. 2000, Gagné & Deci 2005). In line with this, Adler & Chen (2011) argue that the simultaneous existence of **intrinsic** and **identified motivation** can enhance both creativity and coordination within an organization.

Figure 3. Adler & Chen (2011)



In line with Adler & Chen's (2011) proposition, that the combination of intrinsic and identified motivation is what promotes the simultaneous enhancement of creativity and coordination, Moulang (2015) argues that both intrinsic and identified motivation are fostered through **psychological empowerment**. Psychological empowerment is enhanced by an interactive use of performance measurement systems and it is manifested through the four cognitions: meaning, competence, self-determination and impact. In other words, it arises as individuals perceive that they have the skills (competence), influence (impact) and autonomy (self-determination) to perform a certain task, at the same time as they place a value on the actual work goal (meaning). (Moulang 2015, Thomas & Velthouse 1990, Spreitzer 1995). According to Moulang (2015), all four cognitions impact intrinsic motivation, while only "meaning" can affect identified motivation.

Figure 4. Moulang (2015)



2.2.3 Tessier & Otley's (2012) Definition of Interactive Use

Moulang (2015) argues that an interactive use of PMS "expands opportunity seeking, focuses attention, forces dialogue and encourages creativity towards approaches used in dealing with strategic uncertainties (Simons, 1995, Bisbe et al., 2007), and aims to enhance idea generation" (Davila et al., 2009, p. 521). In line with this, Tessier & Otley (2012) argue that intensive use by superiors, intensive use by subordinates and face-to-face communication is what defines an interactive use of management control systems. Intensive use by superiors and subordinates implies that they frequently devote a significant amount of their time and attention to the control system (Bisbe, Batista-Foguet & Chenhall 2007). Furthermore, poor face-to-face communication, non-intensive use by superiors and non-intensive use by subordinates will characterize a **non-interactive** use of MCS.

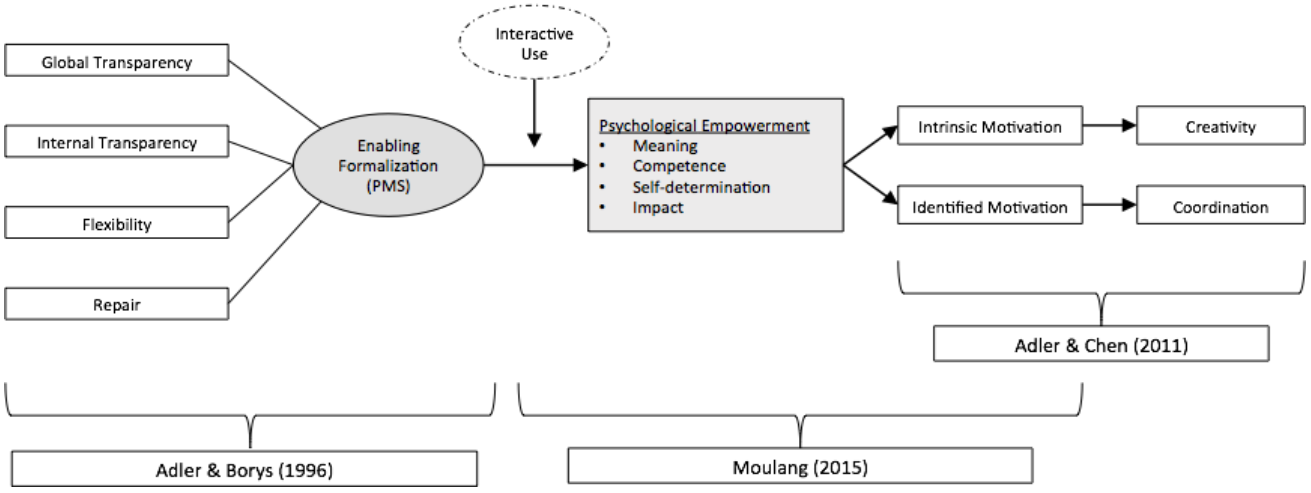
We will use Tessier & Otley's (2012) definition in our analysis, as it focuses on the **use** of a management control system, and defines interactivity as a description of how a management control system is used. This in contrast to Simons' (1995) definition of interactive MCS, assuming a focus on strategic uncertainties.

2.2.4 Summary of the Conceptual Framework

To sum up, to be able to promote creativity or coordination, organizations ought to foster intrinsic or identified motivation. Therefore, this is what managers have to consider when designing management control systems. If however managers strive towards the simultaneous enhancement of coordination and creativity, Moulang (2015) argues that the interactive use of performance measurement systems will positively affect both intrinsic and identified motivation (through psychological empowerment).

In our analysis, we will use Adler & Borys' (1996) theory to demonstrate that the individual control system (the individual performance measurement system) is an enabling type of formalization, and thereafter apply motivation theory to understand how the enabling characteristics, through motivation, can affect creativity and coordination.

Figure 5. The Conceptual Framework



3. Research Method

3.1 Empirical Method

The specific research scope and purpose of our thesis validates the use of a qualitative case study; we are trying to understand the particular context within which the participants operate, and how this context influences their actions (Bazeley 2013). We believe a qualitative research design will most efficiently provide relevant information for our research questions (Hair et al. 2007). In line with this, Eisenhardt (1989) argues that a qualitative research design is suitable when exploring an area where previous research is scarce. This further supports the qualitative approach for our study, as we aim at investigating a specific area where previous research is limited; performance measurement systems designed by the individual employees.

Moreover, a case study is appropriate when working with *how* or *why* questions, and it is also useful because the focus of our research is to examine a contemporary phenomenon in a real-life setting. (Yin 2013). In line with this, a case study allows for the opportunity to incorporate a broad range of interviews, observations and documents, making triangulation possible.

In contrast to a quantitative study, generalizability will be hard to achieve when a qualitative research design is applied. However, the fact that little has been written about performance measurement systems designed by the employees themselves, makes it necessary to study the phenomenon in a qualitative manner, to be able to capture a broad and nuanced range of interpretations and opinions. A quantitative study on this topic might generate a too simplified interpretation. Moreover, pre-constructed surveys risk omitting important information, or including questions that the respondents have a hard time to understand and answer, which might lower the quality of the study.

3.2 Research approach

Our research approach is a combination of the deductive and inductive approach. We had existing theories in mind when collecting our data, at the same time as the collection of new empirical data continuously guided us towards development of existing literature. Accordingly, empirics and theory were developed in parallel with each other throughout the research process. This movement back and forth between data and theory, to draw verifiable conclusions, is defined as an abductive research approach. (Kärreman & Alvesson 2011)

3.3 The case: Digital Inc Sweden

We have chosen Digital Inc Sweden as our unit of analysis. The name of the company is fictive due to confidentiality reasons. We have compared the use of individual OKRs in the Swedish sales division and the Swedish product development division. The time frame for our case study was approximately three months and we have therefore chosen to focus solely on Digital Inc's operations in Sweden.

Digital Inc is an interesting case company since it appears to be very untraditional. Despite its large size and global presence, Digital Inc is a non-hierarchical organization with few reporting steps and highly autonomous employees. Moreover, it operates in a fast changing and complex environment, which demands flexible structures to be able to adapt to changing external conditions. The employees at Digital Inc are well educated and creative, and the company is considered to be a highly attractive work place with good reputation. Digital Inc gives its employees a lot of freedom and responsibility, and trusts them to drive the company forward. We thought it would be interesting to study management control in this particular setting, since it might imply that well-recognized management control models have to be altered or modified.

Individual OKRs caught our attention early during the pilot interview process. The OKR-system is particularly interesting since it is present at every organizational level; even the employees are supposed to formulate their own individual OKRs. The traditional performance measurement

models that we have encountered, assume a top-down approach when it comes to the design and implementation of PMS.

3.4 Data collection

One of the researchers had a relation with, and access to the study object. We came in contact with a senior manager in the Swedish sales division, who arranged all the interviews based on our preferences. We tried to cover as many positions and perspectives as possible, ranging from engineers, sales analysts, sales managers, account managers and country managers. The collected data is divided into primary and secondary data. Approaching our research topic with interviews was a natural choice, as our research question required a nuanced and holistic view of the role of the individual OKR-system for the performance of creative tasks. According to Hair et al. (2007) interviews are particularly helpful when dealing with complex or sensitive issues, as they allow for high flexibility. We did however use company information and other documents as a complementary source of information.

A majority of the primary data consists of semi-structured interviews (Merriam 1994). Data collection took place from September to November 2015, and interviews were made in person with both researchers present. In order for all the interviews to have the same prerequisites, we had the same structure throughout; one of us asked the questions and the other one took notes. All interviews were recorded and preferably transcribed directly after the interview. On average, the interviews lasted for 60 minutes; the first interviews were somewhat longer, and the final interviews lasted for approximately 30-40 minutes.

Initially we started off with a pilot study consisting of five interviews (with employees in the sales division), with open-ended questions. This helped us get an understanding of the situation and potential issues at Digital Inc that could be interesting to study. The unstructured form of interviews was particularly beneficial as we were free to exercise our own initiatives and ask follow-up questions when we found something especially interesting or unclear (Hair et al. 2007). Moreover, unstructured interviews were applicable since we had a broad range of interviewees with different functions, backgrounds, age, positions and control responsibilities.

This allowed us to modify and adjust the questions based on the respondent. An outline of specific themes (see appendix), laid the basis for discussion, and this template was necessary to ensure that all the relevant data for our specific topic were collected.

Initially, our focus was the sales division at Digital Inc Sweden since we had access to interview persons in this particular division. The first interviewees in the sales division introduced us to the IOKR-system, but explained that they were poorly used in this division. However, several interviewees mentioned that the IOKR-system was more frequently used in the product development division. Since we found the system in itself very interesting to study, as well as the differing uses in the two divisions, we decided to complement our data with interviews in the product development division.

Fourteen interviews, six with employees from the sales division, and eight with employees in the product development division, followed the pilot interviews. The first set of interviews (after the pilot study) were mainly focused on motivational aspects of management control, while the final interview phase consisted of in-depth questions regarding IOKRs. All, apart from the last three interviews were semi-structured. The final three interviews were used for validating the previously collected data, and for this reason the interviews were structured; we asked specific questions and got precise answers. As for the secondary data, we primarily used company data. This complementary source of information provided us with a greater understanding of the data collected during the interviews.

Interview subject	Position	Place	Date
Interview subject 1 (pilot)	Sales Manager	Digital Inc's office, Stockholm	2015-09-03
Interview subject 2 (pilot)	Sales Manager	Digital Inc's office, Stockholm	2015-09-17
Interview subject 3 (pilot)	Sales Analyst	Digital Inc's office, Stockholm	2015-09-21
Interview subject 4 (pilot)	Sales Manager	Digital Inc's office, Stockholm	2015-09-23
Interview subject 5 (pilot)	Sales Manager	Digital Inc's office, Stockholm	2015-09-29
Interview subject 6	Sales Manager	Digital Inc's office, Stockholm	2015-10-15
Interview subject 7	Sales Manager	Digital Inc's office, Stockholm	2015-10-15
Interview subject 8	Sales Manager	Digital Inc's office, Stockholm	2015-10-22
Interview subject 9	Sales Manager	Digital Inc's office, Stockholm	2015-10-27
Interview subject 10	Sales Manager	Digital Inc's office, Stockholm	2015-10-27
Interview subject 11	Sales Manager	Digital Inc's office, Stockholm	2015-10-27
Interview subject 12	Engineer	Digital Inc's office, Stockholm	2015-10-28
Interview subject 13	Engineer	Digital Inc's office, Stockholm	2015-11-03
Interview subject 14	Engineer	Digital Inc's office, Stockholm	2015-11-03
Interview subject 15	Engineer	Digital Inc's office, Stockholm	2015-11-03
Interview subject 16	Engineer	Digital Inc's office, Stockholm	2015-11-06
Interview subject 17	Engineer	Digital Inc's office, Stockholm	2015-11-06
Interview subject 18	Engineer	Digital Inc's office, Stockholm	2015-11-09
Interview subject 19	Engineer	Digital Inc's office, Stockholm	2015-11-09

3.5 Data analysis

According to Hair et al. (2007) data analysis can be made in the following way: data reduction (selecting, simplifying, transforming), data displaying (organizing the information in a way that facilitates drawing conclusions) and finally conclusion drawing. Continuously, as the data collection proceeded, we screened the data and sorted out the most interesting findings from each interview. To our help, we had the interview recordings and our transcriptions. To be able to find patterns in the data, we organized it into empirical themes. We organized the data from the sales division and the product development division separately, but the same empirical themes were

used in both divisions; central management control systems, creativity and motivation. By organizing the data according to the same themes, comparisons between the two divisions were facilitated.

As we had a preconception of theory concerning management control, we started to analyze the empirical data from a management control perspective. From this, we found new themes and relationships, which guided us towards new theoretical concepts and frameworks. One specific research paper, which is closely relatable to our empirical findings, is a study examining the relationship between performance measurement systems and motivation (Moulang 2015). This particular article further guided our theoretical search. Finally, we decided upon three articles, which were included in our conceptual framework. By applying the theories in our conceptual framework, we were able to draw conclusions from the empirical findings. This, moreover, enabled theoretical developments, as our empirical findings could not entirely be explained by the existing theories.

The research made by Moulang (2015) has not been empirically tested. This is a drawback of the theory, as it could imply that some of her conclusions are not valid in a real life company setting. The research article was published in 2015, which provides an explanation for why the theory has not yet been empirically tested. Moulang (2015) does however use proven and accepted theories in her reasoning, which would imply that her research is valid and credible. The other two main theories in our conceptual framework, Adler & Borys (1996) and Adler & Chen (2011), have not conducted empirical studies and instead base their reasoning on previous research. There are however a number of studies that retrospectively have tested their research empirically. For example, both Ahrens & Chapman (2004) and Wouters & Wilderom (2008) have applied Adler & Borys' (1996) theory of enabling formalization to empirical case studies.

3.6 Credibility and Method Criticism

Two well-known concepts for discussing the credibility of a study are reliability and validity. Reliability refers to the ability to replicate the same study and to come to the same conclusions. High reliability is achieved if the study is not affected by contingencies or coincidences. Validity

on the other hand, refers to the ability of the research results to depict reality. (Lundahl & Skärvad 1999, Trost 2014)

Given the above, we believe that the concepts of reliability and validity are less appropriate and informative for evaluating a qualitative case study. It is difficult to generalize our results (validity), since only one specific situation/setting has been studied (Silverman 2013), and a limited number of employees (nineteen) were interviewed. Furthermore, the results might be affected by contingencies and coincidences (reliability). Contingencies affecting the results could be avoided by increasing the sample size (Trost 2014), but for our particular research we were dependent on in-depth interviews. Due to our short time frame, we were not able to interview a larger sample.

Instead of using the concepts of reliability and validity, we will discuss credibility and method criticism in order to give the reader a possibility to determine the further applications of our results. This goes in line with Corbin & Strauss' (2014) reasoning regarding the inappropriateness of the terms reliability and validity for evaluating qualitative studies. By discussing the credibility of our study, we will demonstrate the trustworthiness of our findings.

To begin with, before all interviews, we informed the interviewees that they would be strictly anonymous in our thesis. This was done to enable more honest and open interviews, to help us get a correct depiction of the situation at the company. There is however a risk that the interviewees are biased or provide answers that they believe to be "the correct ones". We tried to mitigate this by interviewing a broad range of employees, on various positions and with different backgrounds and experiences. We perceive this to have given us a nuanced depiction of the situation at the company. Moreover, there is a risk that the interviewees did not understand certain terms or phenomena but were afraid to ask. To manage this risk, we carefully defined fundamental concepts before starting off the interviews.

To increase the similarity, and thereby the comparability between the interviews, each phase of the interview process included the same set of themes (see appendix). Triangulation was used to verify results from different interviews (Arnold 2008). As mentioned in the data collection

section, we structured the interviews in the same way; one of us asked the questions while the other one took notes. This similarity enhances comparability, since the prerequisites for all interviews were the same.

After the interview-sessions we separately organized our notes and general impressions. This was done to be able to compare our perceptions of the interviews without influencing each other's interpretations. In addition to our notes, all of the interviews were recorded, which arguably further improves the credibility of the thesis. The recordings could however constrain the answers provided by the interviewees, as they might fear that the recordings will become public.

Our study is considered to be transparent since we have clearly presented the process of data collection and transcribed our interviews. This transparency is important for the reader to be able to determine the strengths and weaknesses of this thesis. (Rubin & Rubin 2011).

Moreover, the fact that one of the researchers had a relation with our contact person at Digital Inc, could have impacted the credibility. It is possible that the contact person has affected the researcher's perception of Digital Inc, before this study was initiated. We are aware that this perception might influence the researcher's analysis of the empirics, and affect her ability to objectively analyze the findings. In line with this, Digital Inc is a very public company, which also could affect the researchers' perceptions of the company, and thereby negatively affect the objectivity of the study.

4. Empirics

4.1 The case company

This first section of the empirics will provide the reader with a brief overview of company history, company vision and product offerings. In line with this, Digital Inc highlights the importance of skilled employees to transform their vision of industry leadership to reality. Hence, we will give a brief presentation of the employee characteristics necessary to drive the company forward.

Digital Inc is a world leading IT-company, founded in the late 1990s in the US. They have a broad range of offerings, but their main focus is to provide digital services to global business

players as well as private persons. Their core business is the single largest source of revenue. Digital Inc's product offerings are grouped into the following categories: web, business, mobile, media, geo, specialized search, home & office, social and innovation. People all over the world use Digital Inc's products. (SD: Sales Manager, 2015-09-17).

The first Digital Inc "office" was located in a garage in California, and today the headquarter is based in Silicon Valley, Mountain View. Digital Inc is present in more than 40 countries worldwide, with approximately 70 offices and 40 000 employees. In 2014, Digital Inc's total revenues amounted to approximately 66 billion dollars, and the net income amounted to 14 billion dollars. In the early 21st century, a few years after its founding, the initial public offering of Digital Inc's shares took place on the Nasdaq Stock Exchange. (SD: Sales Manager, 2015-09-17).

Digital Inc is known for emphasizing the importance of human capital, and the company is investing a great amount of resources to find, keep and develop the best talents on the market (SD: Sales Manager, 2015-09-17).

4.1.1 The Importance of Great Employees

Digital Inc operates in a complex and changing industry, which requires the company to stimulate continuous innovation and change. "We want to drive change and create customer demand" (SD: Sales Manager, 2015-09-17). The constantly changing environment fuels internal reorganization, as Digital Inc needs to adapt to the external environment. Digital Inc highlights the importance of skilled employees to be able to cope with the fast changing industry and to transform its vision of industry leadership to reality. "The only way for businesses to constantly succeed is to attract the best employees and create an environment where they can grow". (SD: Sales Manager, 2015-10-15).

Digital Inc puts a lot of emphasis on the employees' ability to steer the company in the right direction: "Digital Inc hires the best, brightest and most creative people and trusts them to drive the company forward. Strategic initiatives are encouraged at the lower levels" (SD: Sales

Manager, 2015-10-22). In line with this, Digital Inc promotes the importance of "owning your business" and "acting like an entrepreneur" among their employees (SD: Country Manager, 2015-09-29).

4.1.2 Digital Inc Sweden

The focus of this thesis will be Digital Inc's operations in Sweden, which we from now on will refer to as Digital Inc Sweden. Below follows a more detailed description of how the operations in Digital Inc Sweden are conducted and organized.

The Digital Inc Sweden office is located in Stockholm, and it is divided into two separate divisions: the sales division (SD) and the product development division (PDD). The sales division is working with sales on the Swedish market (sales concerning Digital Inc's products for businesses – mainly digital advertising solutions), while the product development division is working with the improvement and development of Digital Inc's product portfolio. These two divisions are separate all the way from local level to company level. There is no formal interaction between the two divisions, and the informal (social) interaction is relatively non-frequent. Even though the two divisions share the same office, their workspaces are physically separated. In line with this, the divisions have different work tasks, operation modes and management control practices. From a management control perspective, these differences are interesting to investigate. To emphasize similarities and differences between the two divisions and their respective operations, they will be presented separately in the following section.

4.1.2.1 The Product Development Division in Digital Inc Sweden

The product development division (PDD) is organized in teams based on the specific product areas they are working with. The Swedish PDD has no specific connection to the Swedish market. Instead their work is directly related to Digital Inc's global product development division. A majority of the employees working in the product development division are engineers, and this also applies to the more senior managers in the division. According to the interviewees, the hierarchical levels in the PDD are not evident: "I'm writing code and my manager is writing code. He is like any other team member." (PDD: Engineer, 2015-10-28).

In contrast to the sales division, the engineering teams in the Swedish product development division have little contact with external stakeholders and competitors. They do however receive "user reports", including statistics and usage data, which can be used to identify problem areas, improve existing products and get inspiration for the development of new product features. (PDD: Engineer, 2015-10-28).

4.1.2.2 The Sales Division in Digital Inc Sweden

The Swedish sales division is made up of several sales teams, which in turn are organized based on the type of industry their customers operate in. The Swedish sales teams are solely working with customers in the large cap segment. Customers classified as medium or small cap are managed by the sales teams sitting in the EMEA Headquarter. The teams consist of sales analysts, sales managers and account managers. Each team has a manager in charge. There are normally 5-10 people in every team. (SD: Sales Manager, 2015-09-03).

The sales division employs people with various educational and professional backgrounds. Interviewees in the sales division argue that they are not working as "traditional salespersons", but rather as consultants or advisors. They furthermore emphasize the importance of building long-term partnership with their clients to succeed with their business: "It's about how we can grow our business by helping our clients grow their business" (SD: Sales Manager, 2015-10-22). One of their main tasks is to network and get to know the "right people" in their customers' organizations. The employees claim that it is important to pitch ideas and solutions to people at the right positions.

4.2 The Importance of Creativity

Previous research has highlighted the importance of creativity for organizations operating in a complex and uncertain environment. As mentioned above, Digital Inc operates in a continuously changing environment, which would imply that creativity is important for the company's success. In line with this, it is necessary to demonstrate how creativity is manifested in the sales division and product development division respectively.

4.2.1 Creativity in the Product Development Division

The main task for the engineers at Digital Inc is to improve the existing products and develop new ones (new products or new product features). Creativity is important in their daily work, as there are multiple ways of solving problems and approaching opportunities. “In every project there is great room for being creative. It doesn’t matter if you want to come up with something new, or solve a problem. You have to be creative to work here.” (PDD: Engineer, 2015-10-28).

Creativity is strongly promoted within Digital Inc. The “80/20-rule” is by the employees perceived to be an example of how Digital Inc encourages creative thinking. The employees ought to devote 80% of their time and energy to “core business” (that is, existing products & solutions) and 20% to “happiness projects”. I.e., 20% of your time can be spent on new-thinking and creative projects that are not directly related to your every-day work and responsibilities. “The 20% projects should be an opportunity for you as an employee to try out some of your ideas, or do something that you are really interested in.”(PDD: Engineer, 2015-10-28). The 80/20-rule is appreciated within the product development division, and it is perceived to be positively correlated with creativity.

4.2.2 Creativity in the Sales Division

“When thinking about Digital Inc, you probably think about the innovative and creative engineers, but creativity is very important for the sales teams as well” (SD: Sales Manager, 2015-10-22).

Due to the complexity of Digital Inc’s products and services, the challenge for the sales teams is to demonstrate how the company’s services can meet customer needs. Hence, the salespeople have to be creative to “find” the right solutions for their specific customers. Creativity is perceived to be encouraged as the employees in the sales division are allowed to autonomously set up their work processes. There are few rules and guidelines. “Your task is to use the tools at hand, and find the best solution for your client” (SD: Sales Manager, 2015-10-27).

Furthermore, as mentioned above, it is important for the employees in the sales division to network. Some of the interviewees emphasized that this too requires creativity. The employees are encouraged to have creative and untraditional meetings, workshops and presentations. The purpose with this is to get the clients out of their comfort zones and inspire them to "think outside the box".

4.3 Management Control Systems

In the following section, we will display the types of management control tools that are used in the two divisions. Firstly, we will present the structure of the company-wide IOKR-system, and thereafter we will present how the IOKR-system is used in the respective divisions. Secondly, the remaining management control systems in the product development division and sales division are described. Thirdly, performance evaluation practices will be discussed, as they can serve the purpose of reinforcing the focus provided by management control systems.

4.3.1 The Design of the Individual OKR-structure

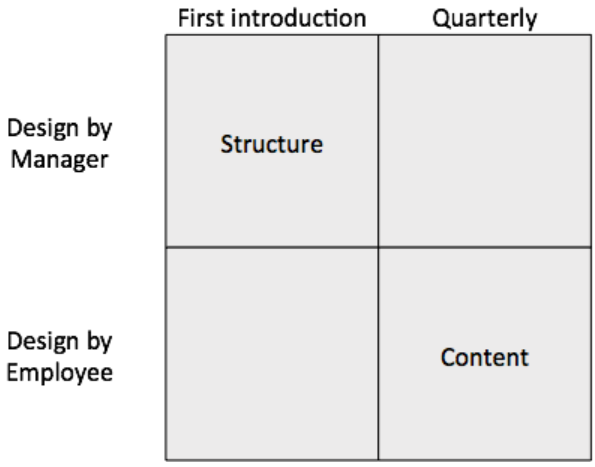
An important management control tool, emphasized organization-wide, is the so-called OKR-system, "Objectives and Key Results". OKRs are present at all organizational levels, starting from the individual all the way up to company level. There are OKRs for individuals, teams, countries, regions (for example, Northern Europe or EMEA) and for Digital Inc as a company. The OKR-system is a performance measurement system. Performance measurement systems are usually formulated on company or business unit level, which makes individually formulated PMS interesting to investigate. In line with this, the interviewees have highlighted the uniqueness of formulating individual performance measures.

Digital Inc provides general information about how the individual OKR-system is intended to be used. This general information is distributed through e-mails, lectures and fact sheets. The individual OKRs (IOKRs) should consist of a maximum of five objectives and four key results, to focus attention on a few important goals. The purpose of using IOKRs is to inspire bottom-up initiatives and give the employees the opportunity to formulate their own set of goals. Moreover,

IOKRs enhance focus and can function as an alignment tool. The objectives should be ambitious and feel a bit uncomfortable. The key results are the measurable steps towards achieving the set out objectives, and they should moreover enable objective grading. At the end of each quarter, the employees grade themselves and assess to what degree they have reached their objectives. The grading scale goes from 0-1, where 1 equals 100 % accomplished goals. The so-called "sweet spot" is between 0.6-0.7, indicating that the employees have succeeded in formulating ambitious and challenging goals. The grades function as a directional indicator and learning tool, indicating improvement areas and future focus areas. Furthermore, IOKRs are part of a highly transparent digital system (data base), allowing every employee to see its fellow-workers' IOKRs. This ability enables more accurate communication, since everyone can see everyone else's priorities. (PDD: Engineer, 2015-11-03; SD: Sales Manager, 2015-09-03)

The above given description of the IOKR-system is the initial company-wide design, which goes for all divisions in Digital Inc. To clarify, we will from now on refer to this as "the design of the structure", which was done in the late 1990s, when the IOKR-system was first introduced, and is applied company-wide. "The design of the content", however, is done quarterly by each individual employee.

Figure 6. Design of Structure versus Content



4.3.2 Individual OKRs in the Product Development Division

"I would say that my IOKRs and my team OKRs are the most important tools for helping me plan my everyday work" (PDD: Engineer, 2015-11-03).

Several engineers have expressed a belief of being more dependent on individual OKRs than the employees in the sales division. "The salespeople are responsible for the revenue, they can use financial numbers to set up goals and evaluate performance. Our work is not that clear cut. It is more important for us to have a tool, like the individual OKRs, that can help us break down our goals into measurable aspects" (PDD: Engineer, 2015-11-03). The interviewees are motivated by the possibility of measuring their performance, as provided by the IOKR-system. In this way, they can determine whether their performance has improved or not.

IOKRs are formulated and designed by the employees themselves. Each employee quarterly formulates a new set of objectives and key results, and evaluates them at the end of the quarter. The process of drafting the IOKRs is not strictly regulated; the employees can themselves determine what their quarterly focus areas and objectives will be. "It should be something that you are interested in and it should be somehow related to your and the organization's goals." (PDD: Engineer, 2015-10-28).

There are however a few guidelines on how to set the IOKRs in the product development division. At the beginning of each quarter the employees have an IOKR-meeting with their manager, where they together discuss the quality of the employee's measures (i.e. the key results). The purpose of this meeting is not to have the manager formulating the IOKRs for their employees, rather it is supposed to function as a coaching session. By using IOKRs, the employees in the PDD can more easily see personal improvement and progress. Several engineers have highlighted the importance of formulating accurate and measurable key results, to be able to benefit from the use of IOKRs. If the measures are poorly formulated, the IOKRs will not provide the employees and the organization with a correct depiction of how the employee has performed during the quarter. Moreover, during the IOKR-meeting, the manager is supposed to help the employees clarify how their individual working goals are aligned with organizational goals, to enhance focus and alignment within the organization. Furthermore, during the IOKR-

meetings, the employees have the chance to highlight potential issues and/or opportunities related to the current company focus. I.e., the IOKR formulation process is supposed to stimulate bottom-up initiatives.

Finally, a formalized use of individual OKRs is a way to facilitate and foster trust within the organization. The interviewees consider the use of IOKRs to be formal, when they are entering their IOKRs into the public data base, and follow up on the measures at the end of each quarter. When the management can see what the employees are focusing on, they feel more comfortable giving them a lot of freedom and responsibility. (PDD: Engineer, 2015-10-28). The importance of freedom has been highlighted during the interviews, "you cannot tell these individuals what to do, they need to tell you what they think is the best use of their time and talent" (PDD: Engineer, 2015-10-28).

The public system is furthermore a tool for supporting vertical communication and cooperation within Digital Inc. The transparency of the IOKR-system makes it possible to gain insight into colleagues' priorities, interests and workload. This can be useful when looking for support or guidance from co-workers. (PDD: Engineer, 2015-11-03).

4.3.2.1 How Does the Individual OKR-system Affect Motivation in the PDD?

Previous research has highlighted the importance of individual motivation for creativity. As stated earlier, creativity is vital for Digital Inc. Motivation occurs within individuals, and managers can affect this by applying certain managerial practices. The IOKR-system is such a practice, and it is therefore interesting to investigate how individual motivation is affected by the use of IOKRs in the product development division.

The interviewees emphasized the importance of autonomy and flexibility when they were asked about what motivates them. In line with this, the employees in the product development division argue that the IOKR-system is an important motivational factor. The autonomy associated with the formulation and use of IOKRs is considered to positively affect motivation. The employees perceive the IOKR-system to convey organizational trust, as they are provided with a high

degree of responsibility when formulating and evaluating their individual goals. “Digital Inc believes in its employees and trusts them to take responsibility for their personal development and goals” (PDD: Engineer, 2015-10-28).

Moreover, the interviewees perceive IOKRs to be a good tool for tracking individual performance. The system enables the employees to observe and measure personal progress, which is considered to be highly motivating. Quantifying and frequently following up on individual goals promote continuous development. The manager has an important role in supporting this goal formulation process, as discussed above. According to our interviewees this managerial attention and support contributes to motivation. Moreover, the supporting function enhances measurability and the quality of IOKRs, which ensures that the measures provide the employees with a correct depiction of their performance. The employees appreciate this, since higher measurability can enhance the tracking of individual performance and thereby positively contribute to motivation. Furthermore, the IOKR-system provides the employees with an opportunity to improve and learn from their past performance. “When talking to my manager, especially during the follow-up sessions, I can better understand my IOKR-grade and define areas of improvement” (PDD: Engineer, 2015-11-03). Finally, the IOKR-meetings provide the employees with a deeper and more comprehensive understanding of how the system is supposed to function. This contributes to the comprehension of how the IOKR-system can be used to achieve individual goals, which according to the interviewees has a positive motivational effect.

As previously mentioned, the IOKR-meetings make sure employees know how their individual work can be aligned with company goals. The employees emphasize that this creates a sense of meaning and belonging, as you can see how your personal efforts contribute to the organization as a whole. In line with this, the interviewees highlight the importance of belonging to a company with which you have common goals, where you feel that you can influence the outcome. “Here at Digital Inc, you are part of driving change in an entire market. We are at the front edge of the digitalization of our society, it is exciting to be a part of this and that you have the possibility to influence it” (PDD: Engineer, 2015-11-03).

4.3.3 Individual OKRs in the Sales Division

Individual OKRs are present in the sales division, but the use is non-frequent. To be able to do a comparison of the IOKR use in the two Swedish divisions, it is necessary to investigate what reasons there are for the non-frequent use.

Our empirical data suggests that the intensity of use of individual OKRs is rather poor in the sales division. Despite this, the individual goals, priorities and focus areas seem to be present in the back of peoples' minds. Even if the salespeople are not regularly formulating IOKRs, they are well aware of how the control system is supposed to function. "Even though I have never formulated my own IOKRs, I know how I would do it." (SD: Sales Manager, 2015-10-15).

Despite the non-frequent use of individual OKRs in the sales division, a majority of the interviewees expressed a desire to increase the usage of individual OKRs and make it more formalized. "Individual OKRs is a way for the company to promote the entrepreneurial way of thinking; setting up your own goals and evaluating the progress, owning your business". In line with this, several interviewees point out that the individual OKRs are perceived to be a way for Digital Inc to signal trust and empower the employees. (SD: Sales Manager, 2015-10-22).

Furthermore, other control mechanisms in place undermine the use of individual OKRs; "We have a lot of other things to do, for example team OKRs, budgets, and business plans for our customer portfolios. There is no time for more administrative tasks" (SD: Sales Manager, 2015-10-27). Furthermore, interviewees from the sales division argue that it is difficult to relate individual OKRs to the overall company strategy, claiming that these are very far apart and that the company strategy to a high degree is technical (SD: Sales Manager, 2015-10-22; SD: Sales Manager, 2015-10-27).

4.3.4 The Remaining Management Control Systems

Considering our research questions, the focus of our study will be the individual OKRs. However, to be able to thoroughly analyze the implications of the use of IOKRs, it is necessary to consider other control mechanisms used in the product development division and the sales

division. This is important since other control mechanisms can affect the use of IOKRs in the respective divisions.

4.3.4.1 The Remaining Management Control Systems Used in the PDD

Besides the IOKRs, there are currently three main formal management control mechanisms in place in the product development division: team OKRs, visions and meetings.

Team OKRs

The teams in the product development division also use OKRs. The formulation of team OKRs should be similar to the process of formulating individual OKRs. There are quarterly meetings where you follow-up on team OKRs and formulate new ones. This formulation-process should be bottom-up. (PDD: Engineer, 2015-11-03). However, there is no explicit linkage between the individual OKRs and the team OKRs. The two processes should be rather independent, and thus, the IOKRs are not supposed to be aggregated to team level. (PDD: Engineer: 2015-10-28).

Visions

Another significant management control mechanism in the product development division is the "common visions". Each engineering team, working on a specific product or service, has a joint vision as an important reference point in their work. One of the product teams, for example, have three key words expressing what they want to achieve with their product; "performance, security, stability". "With these three words we know what we should work towards. Everybody believes in the vision" (PDD: Engineer, 2015-10-28). "The vision is good to keep in mind when formulating both your individual OKRs and the team OKRs (PDD: Engineer, 2015-10-28)". The vision is written down in internal documents and it is given top-down. Even though they are formulated by top managers, the visions are supposed to inspire bottom-up initiatives. Several interviewees have emphasized that problem or improvement areas are often identified at the lower levels in the organization. (PDD: Engineer, 2015-11-03).

Meetings

In addition to the quarterly IOKR-meetings, the engineers have weekly meetings with their teams and product groups. During these meetings, they discuss potential problems and/or opportunities. The meetings should function as a coordinating mechanism. It is a tool for assuring that everyone

is on the same track, and to make sure that everyone agrees on the current company focus. The IOKRs and team OKRs often serve as basis for discussion during the meetings.

4.3.4.2 The Remaining Management Control Systems Used in the SD

There are currently three main formal management control mechanisms in place in the sales division; revenue targets, budgets and team OKRs.

Revenue Targets and Budgets

The revenue targets are the dominant performance metrics in the sales division. These are given top-down, and there is no possibility for the individual employees to affect the targets. The specific revenue targets used are: "revenue against quarterly target" (revenue measured in nominal terms) and "YoY Growth" (year over year revenue growth), where the yearly growth is targeted at 25%. There are revenue targets for the overall company. These targets are broken down to regional, country and industry group level. For each industry group, the targets are broken down into specific team-quotas. The quotas are in turn used as a starting point when formulating quarterly team budgets, "we are rather controlled by budgets and growth targets, but the process of reaching a certain target is fairly free" (SD: Sales Manager, 2015-10-27). Moreover, the budgeting process is supposed to be negotiable, but in practice it is rather top-down; "it can create a sense that I don't count, that they don't respect my knowledge and what I'm doing" (SD: Sales Manager, 2015-10-27).

Team OKRs

In the sales division, the team OKRs are closely related to the revenue targets and the budgets in place (SD: Sales Manager, 2015-10-27). Several interviewees consider the team OKRs to be of more use than the IOKRs. This is due to the small size of the Swedish market, which makes it difficult to have team members that are specialized in certain areas or tasks. "We have to be generalists, we have to be good at everything" (SD: Sales Manager, 2015-10-27). This in turn aggravates the possibility of clearly dividing the work between the team members on a quarterly basis. Instead, the sales people work with team OKRs, and have equal responsibility for achieving them. In line with this, the interviewees argue that if their individual OKRs were formulated they would be equal to team OKRs. This in turn explains why individual OKRs tend to be de-prioritized.

4.3.5 Performance Evaluation

Below we will present the tools used for performance evaluation in the respective divisions.

4.3.5.1 Performance Evaluation in the Product Development Division

Twice a year the employees in the PDD do a performance review, a so-called "PERF". This performance evaluation consists of several components: you write about your own performance, you ask three to four peers to evaluate your work and your manager also adds his/her opinions. The PERF is in turn used as a basis for potential promotions, bonuses and salary increases.

The individual OKRs play an important role when conducting the PERF. However, several interviewees have emphasized that it is not the OKR score per se that is important for your PERF. Rather, the IOKRs can be used to demonstrate your past focus-areas, which can in turn function as basis for discussion. "You will not automatically get a bonus if you have an excellent OKR score, and you will not be fired if your score is 0. It is more important to be able to explain why your OKR score is high or low" (PDD: engineer, 2015-11-03). The IOKRs can furthermore be used to show some kind of progress, either personal or business related.

4.3.5.2 Performance Evaluation in the Sales Division

The revenue quotas are important when evaluating the sales teams' performance. The quotas are not negotiable; either you achieve the set out quota and all the team members get a bonus, or you do not achieve them and there is no reward.

The IOKRs are not currently linked to any formal performance evaluation system in the sales division. However, some interviewees have expressed that they think the IOKRs should be used when evaluating individual performance. "By linking the individual OKRs to the performance evaluation, or to some kind of incentive system, you could probably get the sales people to use the OKRs more frequently" (SD: Sales Manager, 2015-10-15).

However, some of the interviewees mentioned that if you are up for promotion, it could be important to spend some time on formulating good and relevant OKRs. I.e. the IOKRs are occasionally (indirectly) linked to an incentive (promotion). In this way, you can show your manager your past focus areas and what you have been working on.

4.5 Concluding Remarks - The different uses of Individual OKRs

With this section we aim at highlighting the different uses of individual OKRs in the respective divisions. We will gradually build a logical reasoning by linking our empirical results and thereby explain why the use of the IOKR-system differs in the sales division and the product development division. This is important for our analysis, as it demonstrates the prerequisites that are necessary for an interactive use of IOKRs. This interactivity, as defined by Tessier & Otley (2012), affects individual motivation to a great extent, as will be demonstrated in the analysis-section.

4.5.1 Product Development Division: Broad Vision, Specialists and Rewards

The interviewed engineers have expressed a need to break down the rather broad, intangible and vague vision to something concrete and relatable, to be able to convert the vision to actual work tasks and initiatives. From this we can conclude that the individual OKRs have an important role in the product development division; they serve as a useful tool when turning something rather vague (the vision) into concrete and measurable actions. In line with this, the manager functions as a coach, clarifying and guiding the individuals in the goal setting process, i.e. the manager can be seen as a mediator between the higher (company vision and goals) and lower levels (individual goals) of the organization.

Another explanatory factor to why individual OKRs are prioritized in the product development division is the fact that the performance evaluation system (PERF) is directly linked to the IOKRs. The PERF is in turn linked to a reward system, which we assume motivates the employees to thoroughly formulate their individual OKRs.

Moreover, the interviewed engineers have pointed out that they have rather specialized working tasks within their product teams. They divide the work among them, and focus on specific parts of the product development process. We argue that this specialization, in combination with the broad vision, would induce a rather heterogeneous working group in terms of individual goals, work tasks and ambitions. Each engineer can interpret the vision in his or her own way and hence approach the working tasks differently. We therefore argue that the individual OKRs will diverge within each specific product development team.

To sum up, the interviewees from the product development division have expressed a need for individual OKRs to be able to break down, and thus more easily relate to the vague vision. Moreover, each engineer is specialized within their team, and works with a specific product feature/function, implying that the individual OKRs will differ among the team members. Therefore, we can conclude that there is a need for OKRs at an individual level, not solely at team level, in the product development division.

Figure 7. Product Development Division

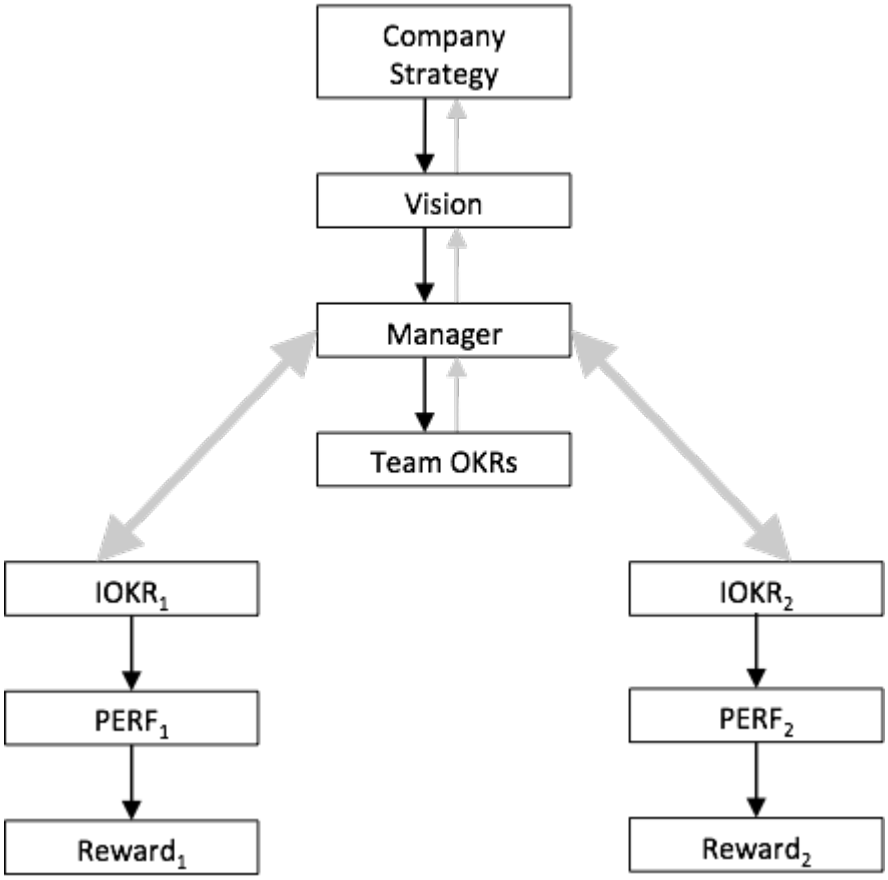


Illustration commentary: The black arrows illustrate a top-down relationship. The thin transparent arrows illustrate a bottom-up relationship. The thick transparent arrows illustrate an interactive relationship between subordinates and superiors.

4.5.2 Sales Division: Strict Target, Generalists and Rewards

The individual OKRs in the sales division tend to be de-prioritized in favor of the team OKRs. We argue that this partly can be explained by the fact that only team-based performance is linked to a formal incentive system. If the team reaches its quarterly revenue target, everyone in the team is rewarded with a bonus. This goes in line with Otley's (1999) argumentation, that employees tend to focus on the goals that, if achieved, will be rewarded. Since the team OKRs are based on the team's revenue quota, team performance will be prioritized.

As suggested by our empirics, the employees working in the sales teams are generalists. The small size of the Swedish market makes it difficult to have team-members that are specialized in certain areas or tasks. Instead, everyone has to take full responsibility for team goals and it therefore becomes difficult to specify individual goals. We argue that this is another reason for prioritizing team OKRs over individual OKRs.

From observing the management control structure in the sales division, it is reasonable to expect that if the salespeople were to formulate their individual OKRs, they would most likely be equal to team OKRs. As concluded above, this is due to the strict revenue target that is imposed on the teams, and the fact that the salespeople in Sweden are generalists within their teams. Therefore, we argue that the individual goals in the sales teams are homogenous. This more or less implies that the formulation of individual OKRs is redundant, and therefore does not contribute to the purpose of controlling and motivating the individual employees in the sales division. As suggested by our empirics, the IOKRs in the sales division are perceived to be an administrative task that the employees do not have time for.

Figure 8. Sales Division

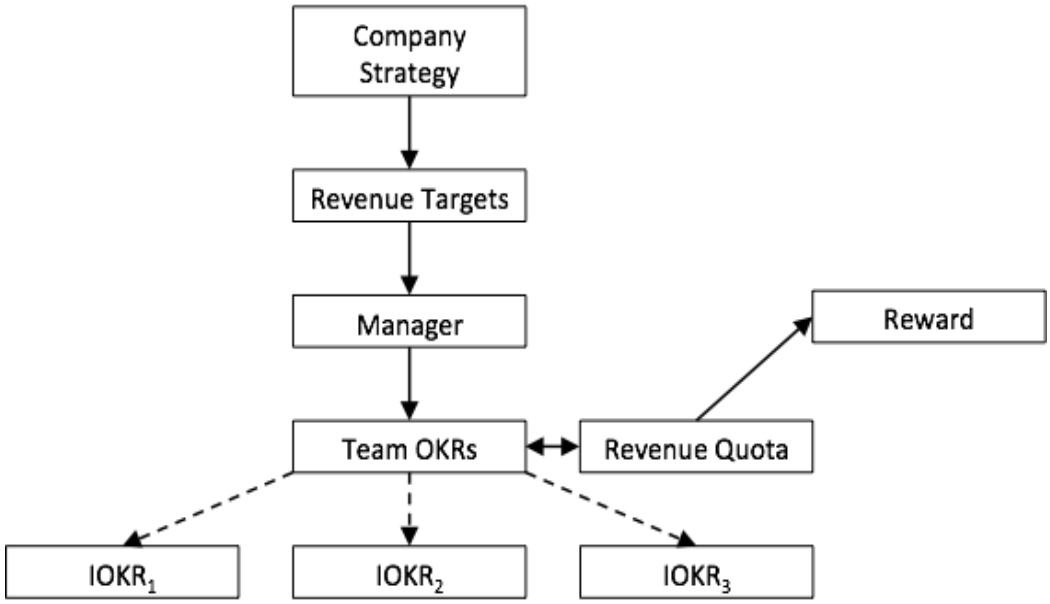


Illustration commentary: The black arrows illustrate a top-down relationship. The dotted lines represent a hypothetical relationship; if the employees in the sales division were to formulate individual OKRs, they would be equal to team OKRs.

4.5.3 Conclusion and Comparisons

In the sales division, the employees work towards a clear and strict revenue target. In the product development division on the other hand, the engineers are guided by a broad and rather vague vision. The revenue target is fully understood by the sales teams, while the vision in the product development division can be rather hard to grasp and relate to. Furthermore, we have in the above discussion argued that the different degrees of specialization within a sales team contra product development team, explains the homogeneity versus heterogeneity among team members' goals. Being a generalist among other generalists within a team brings forth rather homogeneous goals. The opposite is true for the product development teams, the team members are specialists and therefore have heterogeneous goals and work tasks. The homogeneity in the sales division is further enhanced by the incentive system being linked to team performance. All the employees within the team will therefore strive towards the same goal, since the reward is tied to this particular goal. In the product development division on the other hand, the incentive system is linked to the PERF, which incorporates the individual OKRs. This is suggested to further enhances the heterogeneous goals within the PDD.

To sum up, we can conclude that the prerequisites that are necessary for a frequent and intensive use (i.e. an interactive use, as defined by Tessier & Otley (2012)) of IOKRs are: a broad and vague vision (instead of a strict revenue target), specialized employees (instead of generalists) and rewards linked to the IOKRs (instead of rewards linked to other management control mechanisms).

5. Analysis

From our empirics, we can conclude that the design of the overall IOKR-system (the design of the structure) is the same in both divisions (more specifically, the design of the system is the same for the whole company). In line with this, Adler & Borys (1996) argue that if formalization is enabling it will positively affect employee motivation. Below, we will demonstrate that the IOKR-system is enabling, by analyzing our empirics in relation to Adler & Borys' (1996) four features (internal transparency, global transparency, flexibility and repair).

From our empirics we can however conclude that the motivational effects from the enabling IOKR-system differ in the two divisions. In the product development division we can clearly observe a positive relationship between the use of IOKRs and individual's motivation. In the sales division, on the other hand, this relationship is not as evident. The reason for this difference, we argue, is the different uses (interactive in the PDD versus non-interactive in the SD) of IOKRs. Adler & Borys (1996) do not discuss the potential motivational implications of differing **uses** of an enabling control system. Rather, their theory is limited to the **design** characteristics of an enabling control system. Hence, it becomes interesting to analyze our empirical results from the product development division by complementing Adler & Borys' (1996) four design features with theory highlighting the interactive use of performance measurement systems and its effect on motivation (Moulang 2015).

Since the use of individual OKRs in the sales division is non-interactive, it is not reasonable to analyze our empirical results from this division using Moulang's (2015) theory on the interactive use of PMS. Due to this, the first section of the analysis will focus on the interactive use of individual OKRs in the product development division, and we will thoroughly analyze each design feature separately (global transparency, internal transparency, flexibility and repair) and demonstrate their motivational impacts. Thereafter, we will focus the analysis on the sales division, and demonstrate how the pure existence of the individual OKR-system can have a motivational impact, despite its non-interactive use.

5.1 The Design of the IOKR-system

We will begin analyzing our findings by using Adler & Borys' (1996) four design principles: repair, flexibility, internal transparency and global transparency, to be able to demonstrate that the individual OKR-system is designed in an enabling way. The OKR-system is a company-wide management control system; initially designed by top management at Digital Inc. As mentioned in section 4.3.1 the managers are responsible for designing the initial system structure, while the employees design the content.

The fundamental idea with the IOKR-system is to allow the individuals to design, improve and change their objectives and measures as they see fit. Employees have the authority to continuously alter and renew their OKRs, to make sure they are not irrelevant or outdated. This indicates that the individual OKRs are characterized by a **repair feature**, as defined by Adler & Borys (1996). Furthermore, individual OKRs allow the employees to develop goals and measures that are customized to their specific responsibilities and work tasks. In line with this, the employees have the ability to choose whether they want to include personal development goals in their OKRs. This implies that there is a **flexibility feature** built-in to the individual OKR-system. (Ahrens & Chapman 2004, Adler & Borys 1996).

As demonstrated above, the individual employees have full responsibility and freedom to design and alter "the content" of the individual OKR-system, i.e. the measures and objectives. As they have full responsibility and autonomy, we argue that individually formulated OKRs naturally will be characterized by **maximum** flexibility and repair.

Regarding **internal transparency**, the empirics suggest that all the interviewed employees are aware of the underlying rationale behind the use of individual OKRs. In both the product development division and in the sales division, the employees understand how and why they are supposed to formulate their individual OKRs and how the IOKR system is supposed to be used. Moreover, the openness of the IOKR-system (the public data base), allowing all the employees throughout the company to see each other's OKRs, indicates that the system is **globally transparent**.

5.2 The Use of the IOKR-system

As argued above, the structure of the individual OKR-system is designed in the same way throughout the company. The **use** of individual OKRs however, differs between the two divisions; in our concluding remarks of the empirics we have identified that the IOKRs are used frequently and intensively in the product development division, but not in the sales division. The following section of the analysis will therefore highlight how the differing uses impact motivation, and thus creativity and coordination. For this purpose, Adler & Borys' (1996) design features in relation to IOKRs will be analyzed using Moulang's (2015) research on motivation and management control.

Moulang (2015) studies the relationship between the (interactive) use of performance measurement systems and its effect on motivation and furthermore creativity, by using the concept of psychological empowerment (meaning, impact, competence and self-determination). In line with this, Amabile (1998) investigates how different managerial practices can affect intrinsic motivation and thus creativity. It is relevant to complement Moulang's research with Amabile's theory, since the interactive use of performance measurement systems is a managerial practice. Finally, Adler & Chen's (2011) theory about how different types of motivation affect creativity and coordination will be applied. Since the uses of IOKRs differ in the different divisions, the analysis below will discuss the product development and sales division separately.

5.2.1 The Interactive Use of IOKRs in the Product Development Division

Our empirical data suggests that the individual OKRs in the product development division are used interactively. This interactive use is defined as intensive use by superiors (top managers), intensive use by subordinates and face-to-face communication (Tessier & Otley 2012). These criterias are all satisfied in the product development division, since the employees and their managers meet on a quarterly basis and intensively discuss the employee's individual OKRs. Furthermore, the IOKRs are used as basis for discussion during the weekly meetings. Given the enabling characteristics of the IOKRs (as concluded in the above section) in combination with the interactive use, the theories of Adler & Borys (1996) and Moulang (2015) are interesting to highlight and combine. We have concluded that the three criteria (intensive use by superiors, intensive use by subordinates and face-to-face communication) of the interactive use will affect

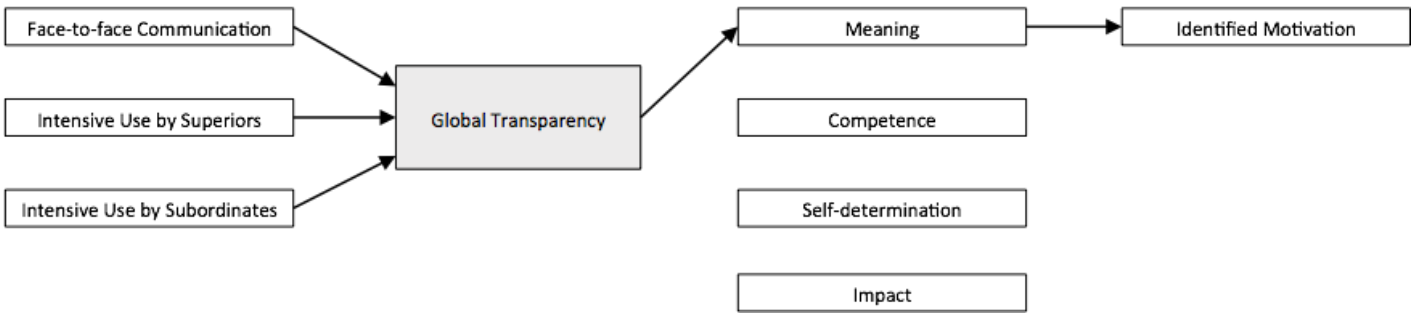
the four design features differently. Below, we will discuss how the four features are affected by the interactive use, and how this in turn can impact individual motivation and thereby creativity and coordination in the product development division.

5.2.1.1 Global Transparency

In the product development division, there are regular IOKR-meetings, which we argue enhance global transparency. During the meetings, the managers help the employees clarify how their individual goals and work tasks can contribute to the achievement of organizational goals. Based on our empirics, we argue that the employees can more easily identify with the organizational goals, if these overarching goals are related to their individual goals. This identification with organizational goals can be linked to "meaning", one of the four cognitions related to psychological empowerment (Moulang 2015). In line with this, we argue that the IOKR-meetings positively contribute to individuals' **identified motivation**. Moreover, Adler & Chen (2011) claim that identified motivation is the type of motivation that best supports coordination.

We can conclude that the interactive use of IOKRs will affect global transparency in the product development division. The quarterly IOKR-meetings require that superiors and subordinates regularly devote time and attention to the control system (intensive use by superiors and subordinates) (Bisbe, Batista-Foguet & Chenhall 2007), and the meetings are furthermore characterized by face-to-face communication. I.e., global transparency is enhanced by the interactive use of IOKRs.

Figure 9. The effect of the interactive use on motivation, through Global Transparency



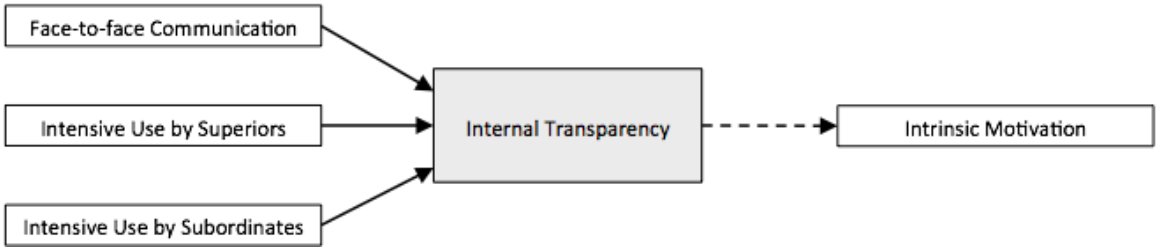
5.2.1.2 Internal Transparency

Internal transparency of the IOKR-system is enhanced as the employees are provided with layered information on how to use their individual OKRs. Besides general information (e-mails, lectures, fact sheets) regarding the intended use of IOKRs provided to all organizational members, employees in the product development division are provided with additional information from their managers during the IOKR-meetings. Here the manager has a supporting and clarifying role, helping the employees formulate measurable IOKRs so that they are able to get a correct depiction of their performance. This enables employees to observe and measure personal progress, which is considered to be highly motivating.

Internal transparency is however not directly relatable to motivation, it is rather a prerequisite for the IOKR-system as such to affect motivation. We argue that internal transparency as a design feature does not in itself impact motivation. The enhancement of internal transparency (through the interactive use) does however enable the IOKR-system to positively affect intrinsic motivation. The access to layered information, helps employees understand how the IOKRs can be used to serve their needs, i.e. how they can use IOKRs to reach their individual goals within the scope of the organization. Hence, internal transparency can help the employees understand how the IOKRs can be used to explore and realize one's potential, which in turn positively affects **intrinsic motivation** (Coon & Mitterer 2010).

We can conclude that the interactive use of IOKRs will affect internal transparency in the product development division. As for global transparency, the IOKR-meetings (requiring face-to-face communication, and that superiors and subordinates regularly devote time and attention to the control system) are important for the enhancement of internal transparency.

Figure 10. The effect of the interactive use on motivation, through Internal Transparency



5.2.1.3 Flexibility and Repair

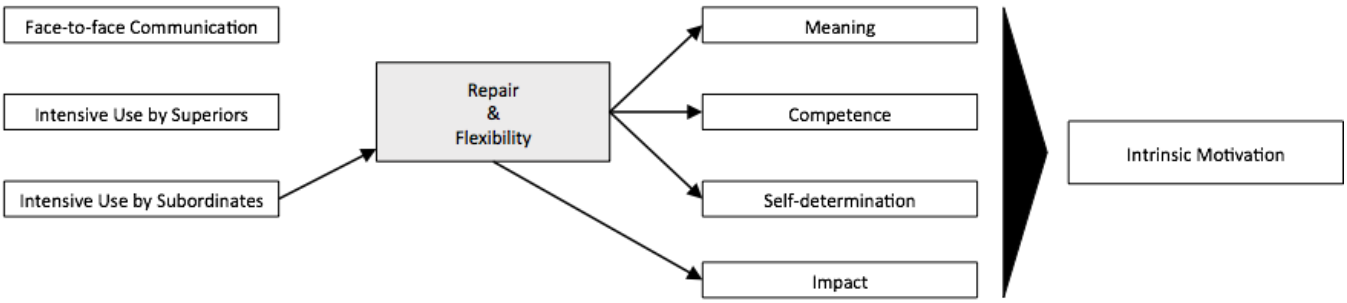
Since the employees have full responsibility and autonomy when formulating the IOKRs, increased face-to-face communication and intense use by superiors will not further enhance the flexibility and repair feature. I.e., the interactive use will not give the individuals additional opportunities to adjust or adapt the measures in the performance measurement system, since they already have full control over the measures and objectives. Therefore we argue that face-to-face communication and an intensive use of the IOKR-system by superiors is not necessary for the flexibility and repair features to positively affect individual motivation.

There are however motivational effects from an intensive use of the IOKR-system by subordinates; i.e. **intrinsic motivation** can be positively affected when employees regularly formulate the individual OKRs in accordance with personal interests and goals. We argue that when the subordinates intensively use the IOKR-system, the flexibility and repair features can be related to all the four cognitions (competence, meaning, self-determination and impact) associated with psychological empowerment (Moulang 2015). Intrinsic motivation is therefore positively affected.

The employees have the freedom to determine what measures and goals to include in their IOKRs, which indicates that both "impact" and "self-determination" are positively affected. Freedom in itself has, according to Amabile (1998), the possibility of enhancing individual's intrinsic motivation. It is furthermore argued that the autonomy related to IOKRs signals organizational support, as Digital Inc trusts its employees' to formulate their own work goals. This in turn increases the feeling of "competence" among the employees, as defined by Moulang

(2015). It is furthermore argued that individuals place a higher value on a work goal they have formulated themselves, which implies that the flexibility and repair features positively affect the feeling of "meaning" (Moulang 2015).

Figure 11. The effect of the interactive use on motivation, through Repair & Flexibility



5.2.1.4 Managerial involvement

The interactive use, per definition, requires intensive use by superiors (managers) and face-to-face communication. I.e., the interactive use requires considerable managerial involvement. The following section will therefore aim at explaining the importance of managerial support for the individual OKR-system to enhance employee motivation.

Even though the individual OKRs are formulated by the employees, the system structure is designed and promoted by managers, and can thus be seen as a managerial tool. Previous research on management control advocates the need to involve users in the design and implementation of **enabling** management control systems (Adler & Borys 1996, Wouters & Wilderom 2008). Adler & Borys (1996) argue that enabling formalization is what gives rise to employee motivation. These theories assume that the manager is the "designer" of the control system. In our case however, the employees design their own performance measures (IOKRs), which implicitly means that there is **maximum** user-involvement (i.e. the user is the designer). In contrast to previous research on enabling management control, advocating the importance of user involvement, our specific case emphasizes the need to analyze and discuss **managerial involvement.**

Given the above analysis, it becomes important to emphasize managerial involvement when exploring the ability of individual OKRs to enhance individual motivation (and thus positively affect creativity and facilitate coordination). As discussed above, management involvement (intensive use by superiors and face-to-face communication) is necessary for the enhancement of internal and global transparency, which in turn has a positive effect on intrinsic and identified motivation. The importance of management involvement is further supported by Amabile (1998), who argues that *supervisory encouragement* will positively affect intrinsic motivation among employees.

5.2.1.5 Rewards

As concluded in section 4.5, the interactive use of individual OKRs in the product development division is stimulated by the fact that the individual OKRs are linked to a reward system (external rewards), through the PERF. Therefore, it is interesting to investigate how the linkage between the performance evaluation and external rewards affects individual motivation in the product development division. In line with this, Adler & Chen (2011) argue that if employees feel intrinsically motivated in their daily work, this intrinsic motivation can be enhanced by external rewards if they are informative and autonomy supportive.

The use of IOKRs positively contributes to intrinsic motivation, as demonstrated above. Since the external rewards are directly linked to the PERF, the autonomy supportive and informative characteristics of the PERF can enhance intrinsic motivation further. The fact that the employees are responsible for writing their own PERF is considered to be autonomy supporting. This promotes the employees to reflect on their own performance. Moreover, the PERF functions as an indicating tool, highlighting the employee's achievements during a specific quarter. This implies that the reward (linked to the PERF) is based on the employee's competence, and we therefore argue that it is informative.

5.2.1.6 Implications of the Interactive Use

According to the analysis above, **intrinsic and identified motivation** is positively affected by the use of IOKRs in the product development division. If used interactively, Moulang (2015)

argues that the performance measurement system will enhance the feeling of psychological empowerment, which in turn positively affects intrinsic and identified motivation. As argued above, the flexibility and repair feature contribute to **intrinsic motivation**, but the features are not further enhanced by face-to-face communication and an intensive use of the IOKR-system by superiors. Global and internal transparency, on the other hand, is enhanced by all three interactive criteria: face-to-face communication, an intensive use of the IOKR-system by subordinates and an intensive use of the IOKR-system by superiors. Given the interactive use, we can conclude that these features, directly (global transparency) or indirectly (internal transparency), positively affect **intrinsic** and **identified motivation**. Adler & Chen (2011) argue that the simultaneous existence of intrinsic and identified motivation supports both creativity and coordination. We can therefore conclude that the interactive use of IOKRs has the ability to simultaneously affect both creativity and coordination positively in the product development division.

Furthermore, we have concluded that it is more important to emphasize managerial involvement (which is required for an interactive use of the IOKR-system) than user involvement, when analyzing the individual OKR-system. In line with this, we argue that managerial involvement can enhance both creativity and coordination, since it positively affects intrinsic and identified motivation.

Finally, we can conclude that the reward system linked to the IOKRs in the product development division (through the PERF) enhances intrinsic motivation as it is both informative and autonomy supportive (Adler & Chen 2011).

5.2.2 The Non-Interactive Use of IOKRs in the Sales Division

Given the discussion above about how the interactive use of individual OKRs in the product development division enhances both intrinsic and identified motivation, we can conclude that the low intensity of use of individual OKRs in the sales division would suggest that they have little effect on individual motivation.

As concluded earlier, the system as such is designed in an enabling way, i.e. all the four design features are in place. We have above demonstrated how the four design features can affect individual motivation when the IOKR-system is used interactively. Since the IOKRs are not frequently and intensively used (non-interactive use) in the sales division, there is no clear relationship between the **use** of IOKRs and motivation. We do however ask ourselves if there might be an indirect relationship between the IOKR-system and motivation in the sales division. Could IOKRs despite their non-interactive use affect individual motivation, and thereby creativity and coordination?

5.2.2.1 The Signaling Effect of the IOKR-system

As argued above, the formulation of IOKRs is neglected in the sales division. Despite the fact that they are non-interactively used, and therefore do not directly affect individual motivation, the pure existence of the control system might still impact motivation. As suggested by our empirics, the employees perceive the IOKR-system to be a way for Digital Inc to signal trust and empowerment. The IOKR-system signals organizational support, by encouraging bottom-up initiatives and trusting employees with their personal goal setting. In line with this, Amabile (1998) argues that organizational support fosters intrinsic motivation. We can therefore conclude that despite the non-interactive use of IOKRs in the sales division, their presence signals organizational support, and this in turn can positively affect creativity. We have no empirical results indicating that the IOKR-system would impact coordination (through identified motivation) in the sales division.

5.2.2.2 Rewards

Our empirical research suggests that IOKRs in the sales division might be more intensively used during periods of promotion. When the employees are up for promotion they have actual incentives to formulate their individual OKRs, to be able to demonstrate their responsibilities, efforts and accomplishments during the past quarters. Adler & Chen (2011) argue that if the employees initially are intrinsically motivated, there will be no crowding out effect from external rewards, as long as the rewards are informative and autonomy supportive. In this specific case, we can argue that a promotion is both informative and autonomy supportive; the promotion is

based on the employees' accomplishments and skills (informative) and it also promotes autonomy, as the employees are rewarded with more responsibility and freedom when climbing in the hierarchy. The conclusion is therefore that occasional promotion will not negatively impact the intrinsic motivation within the sales division.

5.2.2.3 Implications of the Non-Interactive Use

Even though the IOKR-system is non-interactively used in the sales division, we argue that it can enhance intrinsic motivation through organizational support. Intrinsic motivation is in turn important for the performance of creative tasks. During periods of promotion, the IOKRs might be more intensively used in the sales division. In line with this, we have concluded that the promotion (i.e. the external reward) will not crowd-out intrinsic motivation as it is both informative and autonomy supportive (Adler & Chen 2011).

6. Conclusions and Implications

This particular case has highlighted significant prerequisites necessary for individual OKRs to be used interactively, and thereby affect both intrinsic and identified motivation positively. The conditions highlighted in the product development division, encourage the employees to use individual OKRs. These are: a broad and vague vision (instead of a strict revenue target), specialized employees (instead of generalists) and rewards linked to the individual OKRs (instead of rewards linked to other management control mechanisms).

As demonstrated in the analysis, the individual OKR-system is enabling, since it is characterized by all four design features (global transparency, internal transparency, flexibility and repair) (Adler & Borys 1996). However, Adler & Borys' (1996) do not discuss the potential motivational implications of **differing uses** of an enabling control system. Adler & Borys' design framework is complemented with Moulang's (2015) research on the interactive use of performance measurement systems and its effect on motivation. We can conclude that when the IOKRs are used interactively in the product development division, global and internal transparency is enhanced and intrinsic and identified motivation is directly or indirectly affected. Regarding the flexibility and repair feature of the IOKR-system, these features will positively affect intrinsic motivation when subordinates use the IOKRs intensively. The employees will feel motivated by the autonomy and responsibility implied by the flexibility and repair feature. To sum up, the interactive use of individual OKRs positively affects both intrinsic and identified motivation, and thereby enhances creativity and coordination in the product development division (Adler & Chen 2011).

Furthermore, we have considered the theories advocating user involvement when designing and implementing performance measurement systems (Adler & Borys 1996, Wouters & Wilderom 2008). In this particular case, we have concluded that managerial involvement is far more important for employee motivation. Given that the employees are fully responsible for the design and implementation process, managerial involvement will be crucial for the enhancement of motivation. Continuous managerial involvement and support is necessary for the interactive use of individual OKRs in the product development division. The interactive use of performance

measurement systems, as discussed above, is important for employees to experience intrinsic and identified motivation.

In the sales division, despite the non-frequent and non-intensive (non-interactive) use of IOKRs, we have concluded that the IOKRs have a signaling effect as they promote organizational support. In line with this, Amabile (1998) argues that organizational support can enhance intrinsic motivation, and therefore positively affect creativity. We therefore argue that the individual OKR-system can have a positive impact on creativity in the sales division, despite the non-interactive use.

Finally, we have demonstrated the effect of external rewards linked to the individual OKR-system on employee motivation in the PDD and SD. We can conclude that in both divisions, the external rewards linked to IOKRs are autonomy supporting and informative. In the sales division, this only occurs when the employees are up for promotion. In line with Adler & Chen's (2011) argumentation, the existence of autonomy-supporting and informative external rewards will not crowd-out the employee's intrinsic motivation. As mentioned, intrinsic motivation is crucial for the performance of creative tasks.

Going back to our initial research questions, "*How is the individual performance measurement system designed and used in the respective divisions in Digital Inc?"* and "*How can the design and use of individual performance measurement systems affect creativity and coordination?"* we can conclude that the individual OKR-system (individual performance measurement system) used at Digital Inc is designed in an enabling way, since all four design-features (global transparency, internal transparency, flexibility and repair) are present. However, the use of the individual OKR-system differs in respective division; in the PDD, IOKRs are used interactively (face-to-face communication, intensive use by subordinates and intensive use by superiors), while in the SD, the IOKRs are used non-interactively. Regarding our second research question, we can conclude that in the product development division, where the individual OKRs are used interactively, the enabling design features affect intrinsic and identified motivation (directly or indirectly), and thereof both creativity and coordination is promoted. In the sales division, on the other hand, where the individual OKRs are non-interactively used, the existence of the system

signals organizational support. This positively affects intrinsic motivation, and thus creativity. The absence of an interactive use, implies that identified motivation is not enhanced by the IOKR-system, and therefore the IOKR-system does not positively affect coordination in the sales division.

6.1 Managerial implications

In this study, we have concluded that the individual OKR-system is a good tool for stimulating both creativity and coordination in an organization. To be able to stimulate employee motivation (and thus creativity and coordination), the individual OKR-system needs to be designed in an enabling way. Moreover, in the process of formulating and evaluating individual OKRs, managerial involvement is crucial for enhancing individual motivation. Managers need to provide supervisory encouragement and promote an intensive use of the system. The interactive use will enhance the employees' understanding of both global and internal transparency, which we have argued affects intrinsic and identified motivation (directly or indirectly). This in turn enhances coordination and creativity.

6.2 Generalizability and Limitations of the Study

Regarding the generalizability of this thesis, one of the main limitations is that the analysis is based on a single case study. In line with this, the sample size of interviewees was rather small, due to the limited period of time the study was conducted. This further delimits the generalizability of our results.

However, we argue that parts of our analysis are generalizable. We argue that the use of individual PMS (IOKRs) will be promoted if the employees are specialists within their teams and strive towards a vague and intangible vision. Individual performance measurement systems can serve as a tool for breaking down the vision into something tangible and relatable. The need for this tool is not as apparent when a strict revenue target can provide the employees with a clear goal and focus. We argue that this conclusion ought to be applicable in other organizations as well.

Furthermore, we believe that the conclusion regarding the importance of managerial involvement is generalizable to some extent. If the individual employee (i.e the user) is the designer of his/her performance measurement system, we can assume that there is maximum user involvement. Hence, the motivational implications of individual PMS use can not be enhanced by more user involvement.

6.3 Suggestions for future research

We have consciously omitted interesting themes from our study to be able stay within our set out scope. Therefore, we will in this last section present some suggestions for future research. We believe there is a need to replicate our study and test it empirically on a larger sample size, during a longer period of time. In line with this, the study could be tested in a different case company, or by comparing our case company with another organization. Moreover, we believe it would be interesting to further investigate the motivational impact of reward systems linked to individual PMS. In what way should these specific reward systems be designed and used to maximize intrinsic and identified motivation?

As we did our research we asked ourselves in what way a "superior/primary" management control system (the vision or revenue target), could affect the use of an individual performance measurement system. More specifically, we question whether a primary management control system that is coercive (e.g. a revenue target) affects the use of a secondary management control system (individual PMS that is enabling)? In our analysis, we concluded that the strict revenue target to some extent undermined the use of individual PMS. However, we did not examine if it was the coerciveness of the revenue target that contributed to the non-interactive use of individual PMS. It would therefore be interesting to examine whether the enabling/coercive feature of a "primary management control system" has an impact on the "secondary management control system".

Finally, it would be interesting to further investigate the signaling effect from a management control system that is present, but not frequently used. In what way does such a system impact employee behavior and motivation?

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8. Appendix

8.1 Pilot Interview

The outlined themes below make up a basis for the open-ended interview questions in the pilot study. Follow-up questions were posed during the pilot interviews.

8.1.1 General

1. Personal background
2. Area of responsibility
3. Digital Inc's history
4. Facts about Digital Inc

8.1.2 Motivation

1. Personal motivation
2. Co-worker's motivation
3. Reward systems

8.1.3 Creativity

1. Importance of creativity
2. Promotion of creativity

8.1.4 Management Control

1. Autonomy/Flexibility
2. Controlling day-to-day activities
3. Mission statement
4. OKRs
5. Coordination
6. Big data

8.1.5 Environmental

1. Industry trends
2. Competitors
3. Customers
4. Fast changing industry

8.2 Interview questions, Sales Division

1. What is your area of responsibility? For how long have you been working at Digital Inc?
2. Could you tell us about how you are working with your customers?
3. Is creativity important in your daily work?
4. What control mechanisms are currently in place in the sales division? How is performance evaluated/followed-up on?
5. We've read and heard about individual OKRs. Could you tell us about how these are used in the sales division?
6. Can you in detail describe the process of formulating/setting individual OKRs?
7. Are the individual OKRs important when evaluating your performance?
8. Can you relate your individual OKRs to the overall company goals? Are they aligned with company vision/strategy?
9. How do you think the individual OKRs affect your daily work?
10. Given that individual OKRs are "poorly"/ non-frequently used in the sales division - what could be done to improve the use?

8.3 Interview questions, Product Development Division

1. What is your area of responsibility? For how long have you been working at Digital Inc?
2. What control mechanisms are currently in place in the product development organization? How do you make sure that everyone is striving towards the same goals? How is your performance evaluated?
3. What's the purpose of setting individual OKRs? Do you formulate your individual OKRs?
4. Can you in detail describe the process of formulating/setting individual OKRs? What is your starting-point when you formulate your personal OKRs? Are there any specific guidelines on how the framework of OKRs should be used?

5. Can you relate your individual OKRs to the bigger picture - i.e. to the company wide strategy/company wide OKRs? Are your OKRs aligned with company vision/strategy? Why/why not?
6. How does the relationship between individual OKRs, team OKRs, country OKRs and company OKRs look like?
7. How do you think the use of individual OKRs affect your work?
8. Do you perceive individual OKRs to be a good tool?