Convergent Creativity and Management Control Systems: Managing Stylistic Innovation in Fashion Companies

Antonio Davila
IESE Business School
Avenida Pearson, 21
08034 Barcelona
adavila@iese.edu

Angelo Ditillo[*]
Universitá Bocconi and Sda Bocconi School of Management
Via Roentgen 1
20141 Milan
angelo.ditillo@unibocconi.it

October, 2012

[*] Corresponding author.

Abstract

The empirical findings of this study indicate that management control systems are deeply embedded in the work environment of creative people and play a significant role in the creative teams directed at developing new products characterized by stylistic innovation. Yet, they do not address traditional goal divergence concerns but rather activate dialogues around meanings to define, negotiate, and legitimize the objectives that emerge during creation. This purpose is achieved through mechanisms that inspire (inspirational controls) these dialogues and mechanisms that configure (directional controls) the way they happen. Our research is based on a multi-case research design structured around an in-depth case study where the main traits of these systems are identified, followed up by five additional cases that reinforce, reshape, and enrich the findings. The study suggests that creativity and control do not have contradictory purposes and both are deeply integrated in organizations competing on creativity.

1. Introduction

Creativity is a fascinating and multifaceted concept. Originally studied in the field of psychology and sociology, it has gradually been explicitly introduced into the management and marketing literatures. These literatures have approached the study of this phenomenon exploring theoretical and empirical issues associated with the non-routine nature of creativity, often within the broader context of innovation. Different theoretical perspectives, areas of enquiry and levels of analysis have been used (e.g. Chandy et al. 2006; Hirst et al., 2011; Wadden, 2011; Shin et al, 2012). Management control papers have concentrated on innovation at the organizational level (e.g. JØrgensen and Messner, 2009; Bisbe and Malagueňo, 2009), research and development organizational units (Hayes, 1977; Brownell, 1985) and projects (e.g. Abernethy and Brownell, 1997; Davila, 2000; Ditillo, 2004; Adler and Chen, 2011), with a focus on product development (e.g. Nixon, 1998; Davila, 2000; Revellino and Mouritsen, 2009), service development (e.g. Chang and Birkett, 2004; Gilson et al., 2005), and management accounting innovations (Emsley et al. 2006; Alcouffe et al., 2008; Naranjo-Gil et al., 2009; Bryant et al. 2011).

The main contribution of this paper is a new understanding of the role of management controls in highly creative environments, where the value generation aspect of innovation is de-emphasized and creativity in business is enhanced. The empirical findings explicitly speak to control in small collaborative creative teams, aimed at developing products that incorporate stylistic innovation[1]. In this way we substantially differ from previous work in many respects. First, we focus on the control of creative processes at the inception, discovery, idea creation stage, before the conversion activity takes place and the developed

---

[1] Stylistic innovation is 'the reassignment of social meaning to an existing product' and/or 'the change of the aesthetic characteristics of a product generating both a new product – from a physical point of view – and a new meaning' (Cappetta et al., 2006, p. 1275)

idea is translated into a launched product (Chandy, 2006). This creative stage is the seed of innovation (Amabile et al., 1996, p.1155; Davila et al., 2009, p. 285). This is an important point because, even if creativity is part of the innovative process, it does not necessarily share the same logic (Amabile et al., 1996)[2]. Innovation requires structure to channel creativity into value (Tushman, and O'Reilly III 1996; Brown, and Eisenhardt 1997; Davila et al., 2009) that otherwise is dispersed into uncoordinated and unfocused efforts. In contrast, economic value is not an immediate concern in creative activities, rather their purpose is to come up with new meanings and designs around which value capture processes are structured.[3] Second, we investigate creative processes that take place in small teams where members are motivated to simultaneously exercise individual creativity and embrace boundaries to serve the common goals of the group and coordinate with the organization as a whole (Adler and Chen, 2011); these members are more like musicians in a small, improvisational jazz group than those in a symphony orchestra (Adler and Chen, 2011). Finally, we study convergent creativity[4] aimed at generating stylistic innovation, as distinguished from technological innovation (Cappetta et al. 2006).

Given these aims, our first research question points to the kinds of management control systems adopted in these small creative teams expected to generate ideas to develop new products characterised by stylistic innovation. Our findings confirm that traditional management controls are relevant to structure the working environment of creative projects by defining the creative space. However, these controls are integrated with additional mechanisms that are peculiar in the context of creativity directed at stylistic innovation.

---

[2] Creativity is here considered as the necessary precursor of innovation. Yet, it should not be confused with innovation: they are two linked but highly different processes (e.g. Amabile et al., 1996; Davila et al., 2009).

[3] Creative teams in for profit companies care about coming up with creative products and meanings. The rest of the organization makes sure that these creations transform them into value. The business side affects the creative side through some of the constraints that creative people face in their work.

[4] Convergent creativity refers to those multiple designs and stylistic standards that most companies select and use as a reference point over a particular period of time (Cappetta et al., 2006).

Thus, we find two broad groups of MCSs. The first one, directional controls, is management controls that set the boundaries required for the discipline that enhances the creative process (Drazin et al., 1999). These controls shape the playing field where creativity happens and are comparable to mechanisms used in any new product development setting (Abernethy and Brownell, 1997; Nixon, 1998).[5] However, in contrast to the previous findings in innovation processes, with reference to this group of control mechanisms, we do not see an emphasis on the traditional roles of addressing goal divergence concerns and executing pre-defined plans (Grabner 2010); instead we find that these systems configure the organizational setting to stimulate creative people. Their purpose is neither to reduce variation nor to motivate effort to achieve clearly defined objectives. Rather, they generate the variation required to surprise the customer (and society more broadly) at the same time as they define the creative space (Drazin et al. 1999). They do not motivate people towards a set of pre-defined objectives because these only emerge as the creative process evolves; instead they structure this process to enhance the novelty of the end results. The incentive provision that characterizes MCSs in other settings has a minor role in an environment dominated by a motivation to create:

"I don't design clothes, I design dreams" (Ralph Lauren).

The other group of mechanisms, inspirational controls, contributes to guiding the creative process supporting the need to develop and achieve consistency of ideas and meanings. Ideational, aesthetic and social networking controls stimulate people to create novel concepts that fit together. The role of these mechanisms confirms the insight from the creativity literature that it is necessary to balance inspiration, compatibility of ideas, and external constraints for creative settings.

---

[5] The definition of management control systems has evolved over the years from a focus on mechanisms providing financially quantifiable information to assist managerial decision making to one that embraces a much broader scope (Chenhall 2003). Here, the term management control systems is used to name the mix of formal tools including those accounting-based, designed to facilitate the creation of value (Simons 1995).

Our second research question examines the variation of MCSs across companies and the key potential factors driving these differences. We find that market positioning and the strength of the chief designer in style searching and key design choices are the key factors associated with this variation.

The answers to our research questions are also significant to practice. The increasing relevance of creativity directed to the aesthetic and symbolic elements of products or services to competitive advantage (Verganti 2009; Caves, 1999; Djelic and Ainamo, 2005) suggests that organizations cannot remain passive in the hope that creativity will happen spontaneously, and have to introduce mechanisms that shape creative behaviour directed at stylistic elements (Runco 2004; Cillo and Verona, 2008). Djelic and Ainamo (2005), for example, show how the field of mobile telephony has, for a number of years, been impacted and significantly been transformed by the transposition of the fashion logics. The findings in this paper provide some support on how creativity leading to stylistic innovation can be managed through the design of MCSs.

From a methodological point of view, consistent with previous work (e.g. Jönsson, and Grönlund 1988; Jönsson 1998; Malina, and Selto 2001; Ahrens, and Chapman 2004; Granlund, and Taipaleenmäki 2005), we adopt a multiple case study approach to document and gather detailed data on MCSs in creative environments. Our research design uses an in–depth case study and then contrasts the findings with additional data gathering in five organizations. These multiple cases reinforce the conclusions from the first case with additional evidence, provide additional insights into alternative mechanisms in creative environments, and offer ways in which MCSs are shaped to respond to different environmental and organizational stimuli. The research design is also consistent with the claim that creative engagement in organizations can be fruitfully studied through qualitative methodologies (Drazin 1990). It complements extant contributions that have mostly

developed frameworks, only from a theoretical point of view, to illustrate major components of the work context that affects creativity (Drazin 1990; Woodman et al. 1993; Ford 1996; Shalley et al. 2004) or collected evidence on these components from a distance through surveys or laboratory experiments (Oldham et al. 1996 p. 609; Amabile et al. 1996; Pirola-Merlo, and Mann 2004).

2. Creativity, product innovation and control

A large and rich body of literature has studied creativity over the last fifty years. This research has been conducted in various domains such as psychology, management and marketing. Our review is selective and illustrative of issues pertinent to how MCSs could shape the relationship between key contextual variables and creativity, and does not attempt a comprehensive coverage of existing contributions.

Psychology literature has focused primarily around the creativity of individuals. According to this field, personality factors play a relevant role for creativity (Barron, and Harrington 1981). Freedom and discretion have been found to have a positive effect on it (Amabile, and Gryskiewicz 1989; Witt, and Beorkrem 1989), as well as independence and self-determination that positively affect the number of new ideas that individuals propose (Hatcher, Ross, and Collins 1989; Collins, and Amabile 1999). The sub-field of personnel psychology has more specifically concentrated on the creativity of individuals within the organizational context, and has investigated the importance of personal traits and relationships that affect creativity at work (e.g. Tierney et al. 1999; Manz et al., 2010; Singh and Sarkar, 2012). These traits need to be taken into consideration in selection and training procedures (e.g. Ng and Feldman, 2009; Roulin et al. 2011). An important argument of the psychology literature has traditionally been that intrinsic motivation is the only type of motivation that supports creativity (Deci 1972; Ryan, and Deci 2000; Mainemelis 2001; Shin, and Zhou 2003; Mainemelis, and Ronson 2006; Dewett 2007).

So those elements that negatively impact intrinsic motivation have been considered detrimental for creativity. Boundaries and constraints that reduce a person's freedom on task strategies, or deviate attention from the experimental aspect of the task, reduce intrinsic motivation and have a negative impact on creativity (Amabile, 1983). External interventions such as close supervision of employees and forcing them to behave in a certain way shift individual attention toward external concerns, reducing intrinsic motivation and in turn creative performance (Deci, and Ryan 1987; Deci, Connell, and Ryan 1989). As a whole, these arguments suggest that the autonomy and intrinsic motivation that creative environments require cannot be easily combined with organizational boundaries and workplace obligations, such as those that MCSs impose to motivate effort and coordinate tasks, with the apparently obvious implication that creativity and control are incompatible (George, and Zhou 2001; Gagné, and Deci 2005). Tschang's (2007) study on the forces that influence creativity in the video games industry illustrates this argument. It shows that there is a strong tension between the game developers' inclination to be creative and the rationalization and control logic applied to the developing process to satisfy the customers' evolving tastes.

Management research has expanded the spectrum of analysis and has investigated creativity of individuals within multiple social domains (e.g. Ford, 1996) and has developed cross-level and multi-level models, to take into consideration that the creativity of individuals depends on their inclusion in multiple groups (e.g. Drazin et al., 1999) and hierachical levels (e.g. Hirst et al., 2011; Shin et al., 2012). For example, Ford (1996) presented a model that proposes interactions among interested stakeholders (i.e. fields), legitimized wisdom (i.e. domains) and creative subjects and interactions within and among multiple levels of fields and domains that affect the feasibility of the creative act. The marketing literature has focused on product development processes. For

6

example, Sethi et al. (2001) found that the level of output newness is affected by the strength of superordinated identity in the team, encouragement to take risk, customers' influence, and active monitoring of the project by senior management. Chandy et al. (2006) investigated more the ability to convert ideas into products, and found that firms with the highest conversion ability are those that focus on a moderated number of ideas, in areas of importance and in which they have expertise, and choose to provide a moderate length of time on promising ideas. Finally, Marinova (2004) showed that market knowledge diffusion propels innovation, whereas satisfaction with past performance hinders innovation effort. Taken together, these management and marketing literatures provide some insights on the dimensions that should be taken into considerations to foster creativity in organizations. In this way, they indirectly indicate that controls, in order to support creativity, should be designed differently at various levels of the organization, encourage a risk oriented atmosphere in teams, favour active project monitoring, effort focus and time management, and allow market scanning and analogical thinking.

The management control field has for a long period of time studied the control of innovation without explicitly recognising creativity. Some works investigated this phenomenon at the firm level. For example, Bisbe and Otley (2004) showed that the interactive use of control systems affects positively the relationship between product innovation and performance. Bisbe and Malagueňo (2009) demonstrated that the control mechanisms that top management uses interactively (i.e. budgets, balanced scorecard, project management systems) depend on the specific form of innovation initiatives. Jørgensen and Messner (2009) stressed the relevance of enabling controls (as opposed to coercive controls) for product innovation. Mouritsen et al. (2009) explained the reverse relationship of how management accounting controls mobilise innovation activities.

Revellino and Mouritsen (2009), using a process perspective, showed that innovation and management controls co-develop. Finally, Chenhall et al. (2011) examined the role of social networking and indicated that social networking has a moderately significant indirect effect on innovation, acting through organic innovative culture. Other researchers have focused specifically on research and development organizational units to understand how to measure their performance and the factors that may affect its level. Hayes (1978) showed that R&D managers perceived financial measures of performance to be inappropriate for their departments, whereas Brownell (1985) found that budget participation has significantly greater positive effects on managerial performance in R&D units. Still, other authors have looked at a more micro unit of analysis, investigating the antecedents and consequences of the use of management controls in research projects. Rockness and Shields (1984) showed that, when there is little knowledge of the transformation process, input controls appear to be most important, whereas when there is a high level of knowledge of the transformation process behavioural controls are most important. Similarly, Ditillo (2004) found that management control systems adopted in new software development teams vary with the type of complexity of software projects.[6] Abernethy and Brownell (1997) demonstrated that when task uncertainty is lowest reliance on accounting controls has significant positive effects on performance: and conversely, when task uncertainty is highest, behavioural controls contribute negatively to performance, whereas they are preferred to accounting controls when both task analysability and number of exceptions are high. Nixon (1998) focussed on the role that accounting played to illustrate how target costing and related techniques were the tools

---

[6] This conclusion is in some way dissimilar to that of creativity theorists who argue that complex, challenging jobs, with high levels of autonomy, skill variety, identity, significance and feedback foster and activate higher levels of motivation and creativity than simple, routine jobs, without the need of external boundaries or controls. Complex jobs induce, in fact, creative results because they require the combination of multiple dimensions of work, whereas simpler jobs do not (Shalley et al. 2004; Deci, Connell, and Ryan 1989; Hackman, and Oldham 1980).

that structured and articulated the dialogue among all members of the project team in a bid to meet the diverse technical and financial goals. Finally, Davila (2000) argued that performance measurement systems, especially in the form of non-financial measures, enhance product development projects when they provide information for learning and reducing uncertainty, rather than being used for inspection and monitoring[7]. More recently, some alternative contributions have started to investigate explicitly how to control creativity. For example, Jeacle and Carter (2012) found that accounting plays a significant role in the interaction between the various subjects involved in the creative process. As a whole, the management control literature proposes a contingent view on the relationship between innovation and control and focuses, with only a few exceptions (e.g. Jeacle and Carter, 2012), on the development of products characterized by a relevant technological content. This literature has therefore just started to document how to control creativity and has neglected complementary aspects of the use of controls in creative settings. More specifically, first, it has studied mainly innovation without incorporating unique aspects of controlling creativity, such as the motivational structure of creative projects where go-to-market and knowledge management concerns are different from that of innovative efforts. Second, it has taken jointly into consideration different stages of product development – from idea generation, development of the prototype and market introduction – without separating the unique aspects of each stage. Finally, it has focussed on how to control the development of products characterised by significant technological content. Therefore, it has not systematically addressed how to control creativity at the product ideation stage and how to address creative efforts to develop products characterised by stylistic innovation. This is a particularly critical aspect because factors and features explaining controls of creativity processes in a

---

[7] See also Wouters and Wilderom (2008).

technology-driven product development context are not likely to transfer directly to settings characterized by stylistic innovation (Cappetta et al., 2006)[8]. The purpose of this study is to provide evidence and insights to inform these questions.

3. Challenges around team creativity for stylistic innovation

Style is becoming more important over time as the aesthetic and symbolic elements of products are becoming increasingly influential (Davis, 1992). This is true even for products whose evolution has been traditionally driven by technological standards. The mobile phone industry and the computer one are only two cases where the affirmation of a new technological standard comes together with the evolution of the stylistic elements. The aesthetic features refer to the conventional categories of forms and patterns, whose combination generates a specific aesthetic value, that can take various and unexpected meanings. The aesthetic of a product or service is the sensory experience it generates and is the result of those elements that determine the product/service's appearance such as materials, proportion, colour, ornamentation, shape, and size; whereas the symbolism is related to the meanings or associations the product/service activates, such as, for example, elegance, youthfulness and durability (Cappetta et al., 2006; Cillo and Verona, 2008).

Style poses various challenges to creative product development teams. First, style is a 'temporal' phenomenon with a short life span; it is an 'obligatory transformation of taste' (Simmel, 1985). It is therefore necessary to scout around and acquire new ideas triggering style changes. Second, style requires aesthetic compatibility, which is the visual coherence in the aesthetic appearance of the elements of a certain product or product portfolio. It refers to

---

[8] For a more thorough discussion of the difference between technological innovation and stylistic innovation see Cappetta et al. (2006). Contrary to technological innovation guided mainly by the addition or the alteration of physical characteristics, stylistic innovation is related primarily to a change in the social meaning that is assigned to the product. In stylistic innovation, the tangible features of the product may change – its aesthetic characteristics often change – but what matters more is the creation of different intangible meanings. In addition, technological innovation, by impacting on the tangible elements of the product and on its functions, exists independently from a process of communication. In contrast, stylistic innovation exists only if it is recognized and adopted by a specific social community (Cappetta et al. 2006).

the idea of visual fit of different products affecting the customers' aesthetic responses (Cappetta et al. 2006). Hutchinson (1998), working on a collection of products, expressed the idea of visual display that links the various items in a meaningful way, achieving some form of matching with reference to a salient visual characteristic. To give an example, a professional black leather bag for the office would be aesthetically incoherent with an informal shoe, with a cord heel. Third, style requires also social compatibility, as the attribute expressing the coherence of a system of social meanings used in the same social context. Customers search for differentiation and distinction but also for recognisability as belonging to a specific social community, by sharing habits, behaviours, way of dressing, that in order to be identifiable have to be similar and share the same characteristics (Bordieu, 1979; Barthes, 1982). For example, Giorgio Armani's style by simple lines, soft colours and the strong presence of jackets and suits is always recognisable in his collections, even when the style does not reflect these features (Cillo and Verona, 2008).

These challenges require firms to carefully organize creative teams; introducing specific control mechanisms may contribute to their effective management. The objective of these mechanisms is not to coordinate interdependent behaviours and activities – as in the traditional conception of management control – rather to support the right creative effort leading to compatibility in stylistic innovation. Where stylistic innovation is important, teams have to respond to the transformation of taste and identify new trends through specific processes. At the initial stage, the development of the product is characterised by an iterative and continuous activity of ideas collection with a high level of flexibility concerning the final solution, exploring multiple potential directions. Moreover, teams have to make sure that the new products are aesthetically compatible. Creative people exchange, compare and integrate provisional ideas in multiple iterations, until they converge on what they consider the 'big' idea – a concept based on the integration of the various aesthetic elements. In addition,

development teams have also to ensure that new products are socially compatible. This requires direct interaction with trend setters, opinion leaders, suppliers and retailers that are not necessarily operating with the organization, in a virtuous cycle of grasping and spreading a certain trend. It requires participating in key events, such as fairs and exhibitions that have echo in the media. This latter, in fact, plays a critical role as arbiter and/or witness of the success, playing the function of "gatekeeper" of accepted creative ideas (Solomon and Rabolt, 2004).

In sum, creative teams characterized by stylistic innovation combine conventional organizational controls aimed at achieving goal congruence, preserving coordination of interdependent activities and preventing opportunistic behaviours, with controls that guarantee an aesthetic harmony that, starting from the product portfolio, spills over in the social communities that want to make products signals of their life style.

4. Research setting and methods

We select the creative teams of companies in the fashion industry as our unit of analysis.[9] Creative people in these teams (fashion designers) translate the "feelings" of society into designs, as John Galliano described it: "I'm an accomplice to helping women get what they want." They capture social trends and moods with few if any business criteria in mind.[10] These teams offer a unique setting in a business environment where creativity plays a dominant and almost exclusive role.[11]

---

[9] The creative team includes the roles of the chief designer, the creative director and the designers with different levels of seniority. It is responsible for the image, conceptualization, and development of a collection.

[10] Creative teams' main objective is to create novel concepts that will differentiate the collection and capture the attention of customers. Business criteria come as constraints to the creative process. The fact that creative teams focus on novel collections does not mean that fashion firms are not profit oriented; the goal of the rest of the firm is to take these creative products, structure the value creation and capture processes around them.

[11] As we describe in the findings section, the balance between freedom and boundaries varies across companies. No company provides absolute freedom nor do they enforce strict action controls (Merchant et al. 2003). Moreover, the unit of analysis is the creative team and not the individual creative person. Group dynamics and the chief designer management style also affect the particular creative environment for each person.

In contrast to other industries, the relevance of critical and punctuated insights around domain specific knowledge such as technology innovation is much lower (Djelic, and Ainamo 1999; Uzzi 1997; Cappetta, Cillo, and Ponti 2006; Richardson 1996; Caves 2000; Saviolo, and Testa 2002). Fashion designers rely on a constant process of reassignment of social meaning to an existing product and/or a free change of the aesthetic characteristics of a product, generating both a new physical product and a new meaning (Cappetta et al. 2006). Creativity can be interpreted as socially constructed through historical, cultural, and social elements (Amabile 1996; Shalley et al. 2004). Studying one industry keeps these elements stable to highlight organizational factors that may affect creativity. The fashion industry is also particularly interesting because creativity is central to the competitiveness of these companies. In fact, fashion apparel is a highly competitive business and differentiation strategies built on brand image and product styling can be quickly eroded. Thus, fashion companies continuously carve their positions through creative efforts and new products as a basis for short-lived differentiation advantages (Richardson 1996).

Because of the emerging nature of the research questions and to enhance the sensitivity of the research design, we adopt an in-depth case study with replication. In total, we study six companies. All of them are regarded as leaders and known in the market for their ability to propose unique and innovative products (Saviolo et al. 2002).

The selection process is purposeful with the objective of observing relevant realizations of the phenomenon (through the selection of companies known for their creative outcomes) and maximizing variance through variety in terms of product positioning and customer segments served (Eisenhardt, 1989). Fashion companies cluster around two clearly differentiated business models with significant implications in terms of competitive actions and management practices. "Haute couture" companies produce custom, one-off designs targeting wealthy customers. "Prêt à porter" products are off the shelf yet serving different

segments form high end (fine fashion) (e.g. Armani, Dior, Gucci) that an average person would still consider as expensive but affordable, to the middle (e.g. Calvin Klein, Max Mara) and the low end (e.g., Benetton, Zara) (mass market). Each company in the sample belongs to different segments, providing variety and a richer representation of how MCSs support creative processes (Cappetta et al., 2006). The fact that all companies belong to the same industry allow for (a) *literal replication* (predict similar results) and (b) *theoretical replication* (predict contrasting results but for predictable reasons) (Yin 2003). This sample selection provides enough regularity as well as variety to develop a well-informed framework of control and creativity.

We applied this methodology in two steps. In the first step we identified an in-depth case study (Yin 2003) where we carried out 12 interviews with 10 managers in 4 brand divisional departments. The mix in the positions of the managers interviewed gives a diversity of perspectives into control and creativity. We interviewed various managers several times going back to them to clarify issues and contrast our interpretations of the data and the control process of creativity. The data collection lasted more than twelve months. The company also gave us privileged access to data and process observation. The company has a wide product mix ranging from shoes, bags, trousers, shirts, and suits, with various brands positioned differently on the market, thus providing a variety of contexts. The purpose of this in-depth case study was to develop an initial framework to address the research questions.

In the second step, we applied a *"two-tail"* logic to select the additional cases to refine our framework (Yin 2003). On the basis of this logic, we selected cases at both extremes of market positioning: three firms were chosen at the high end and two at the low end. The relevant managers varied across companies because each company organizes its creative teams differently. In all companies, we carefully selected people to interview those that were closest to the creative process (Djelic et al. 1999; Uzzi 1997).

Our unit of analysis is the creative team where the fashion design process takes place. This process includes research, design, paper pattern drafting, prototyping, and sampling (Parsons, and Campbell 2004; Bonacchi, and Bambagiotti Alberti 2006; Statistics 2008).[12] The process is structured around the autumn/winter and the spring/summer seasons. In some companies the cycle is shorter if they have one or two pre-collections midway through the main seasonal collections.[13] Appendix A describes this process in more detail.

4.1 Data collection methods and analysis

To develop our framework and generate inferences on the role and features of MCSs in controlling creativity, we adopted an iterative logic of cycling between the data, emerging theory, and relevant literature. In analyzing interview transcripts and field notes, we identified the control mechanisms used, and how they related to creativity. The process included an iterative analysis of the evidence, each time refining the interpretation of the data, as well as going back to the field for clarifying questions. Through the process, we contrasted our findings against existing control concepts. When these concepts did not offer a plausible explanation, we developed tentative concepts and relationships grounded on the data gathered and the creativity literature. We cycled through this data gathering and analysis process until new data showed little incremental contribution. This iterative process led us initially to identify various MCSs that were being used within creative teams of the pilot case. This first stage included careful coding of the interviews and observations as well as going back to the field. After identifying these various MCSs, the second stage focused on better understanding the purpose of each control mechanism. Each one had its idiosyncratic

---

[12] The fact that the process is well structured does not mean that it is repetitive or that the objectives are clear at the start. Variation, selection, and retention happen within the process. The existence of a process does not imply the absence of freedom, inspiration, and creativity. Rather to the contrary, consistent with the findings in the creative literature, the existence of a stable process enables creativity to happen more fully.

[13] A new type of fashion companies going to the lower segments in the market has eliminated these seasons and introduces new products daily. Examples include H&M and Zara.

aspect, yet as we questioned the data and contrasted the initial findings with field data a common theme emerged. The various systems converged in their purpose around either stimulating creativity or delineating the creative space.

Next, we used replication logic to contrast these initial findings with new evidence from the additional case studies questioning, supplementing, validating, and refining our conclusions. We compared this new evidence with our analysis of the pilot case. MCSs across companies were comparable although each one with its unique design. We contrasted differences in the realization of these systems going back to the companies and especially with managers from the pilot case to understand why its practices differed and how these differences modified our initial conclusions.[14] As we added new observations to our database, the two purposes that MCSs fulfilled were reinforced. Differences emerged around how definition of the creative space and inspiration were defined, but these purposes dominated MCSs design in all six companies.

We collected data from three sources within each case: (1) interviews with key informants; (2) documents of the organization; and (3) observations of processes. These multiple sources allowed to contrast and triangulate the data providing "multiple measures of the same phenomenon" (Yin 2003 p. 99). Triangulation also limited the biases associated with individuals' partial perspective and retrospective rationalization (Yin 2003).

4.2 The six case studies

Deep-Fashion[15] (our in-depth case study) was founded in 1981 when it opened its first showroom in Milan. Today, the company designs and distributes luxury goods, ranging from women's wear, lingerie and beach wear, men's underwear, leather goods, bags, foot wear,

---

[14] We report the final results from the analysis of the data without differentiating at which stage of the research process the particular concept or insight emerged. The final results are a combination of the iterative process in *Deep-Fashion* together with the iterative process including the additional five case studies. The analysis is illustrated using evidence from all six case studies.
[15] For confidentiality all the names of the companies have been disguised.

eyewear, kids wear, fragrances, watches, neckwear, umbrellas, sport chic apparel, ski and après-ski apparel, and fitness clothing.

> "From the elegance of women to a provocative style that combines both contemporary and innovative dimensions, focusing on both image and price in the realm of the leading global luxury brands" (Company presentation).[16]

The consolidated revenues of *Deep-Fashion* are around €240m (+4.5% yearly growth), with a consolidated EBITDA around €36.5m (15.5% of sales) and a consolidated net income of €12.7m (5.5% of sales).[17] Its portfolio of international luxury brands includes five owned brands and four licensed brands. These nine brands are complementary, positioned at the high-end of the market, and ranging from the idea of contemporary feminine elegance and glamour to provocative collections.[18] Owned brands come from acquisitions while licensed brands are associated with partnership and licensing agreements for the production and distribution of specialized products. The design activities are carried out with in-house designers (for some brands) and longstanding cooperation with leading international designers (for other brands).

Best-Fashion operates in more than 100 countries, producing and selling about 130 million garments per year in yarns and wool, cotton, denim, and many other natural and synthetic fibres.

> "For people that love a combination of style, quality and passion and strive for clean and elegant collections" (Company website).[19]

The firm is also involved in the manufacturing and distribution of accessories and other items for casual and home wear, footwear, cosmetics, eyewear, watches, stationery, bags, umbrellas, games, and toys. The consolidated revenues of *Best-Fashion* are around €2,100m

---

[16] To avoid easy identification of companies, we have rephrased the original wording of public statements.
[17] Financial information is for 2009.
[18] Image ranges include low, medium, and high depending on the brand's reputation of superior quality and design (often linked to the idea of "Made in Italy"), whereas style includes classic, contemporary, and innovative and describes the degree to which it attempts challenging existing fashion stereotypes.
[19] Re-adapted to maintain anonymity.

(+4% yearly growth), with a consolidated EBITDA of around €350m and a consolidated net income of €155m (7.5% of sales).

Even-Fashion was founded in early 1980s but saw its huge growth starting in 2002. It designs and sells clothes and accessories such as bags, belts, and purses.

> "For a happy life, happy environment, happy friends, happy existence" (Company website).[20]

It operates with only one brand sold through three distribution channels: 157 mono-brand stores, 4,500 multi-brand stores and 450 corners and shop in shop in 65 different countries. *Even-Fashion* employs 1,500 people from 25 different nationalities. The company has had a spectacular growth over the last seven years with revenues increasing from €8m in 2002 to over €320m in 2009 and expected to reach €520m in 2010. *Even-Fashion* activates a lot of non-conventional marketing initiatives and its quality in logistics has been recently recognized with an award for excellence. Currently the company is able to deliver up to 100,000 garments per day and to stock up to three million items in their automated warehouses, capable of simultaneously processing 5,000 orders and deliver in 24 hours.

Multi-Fashion is a multi-brand luxury goods company, born in 1923 when the founder opened a leather goods store. It offers a diversified portfolio of products, including apparel, lingerie, scarves, shoes, bags, leather accessories, eyewear, jewellery, watches, fragrances, and furniture.

> "For sensual, strong and successful women, who like to emphasize their evolution characterized by quality and passion" (Director of Strategic Planning).

Multi-Fashion sells through nine different brands. The consolidated revenues of *Multi-Fashion* are around €3,100m, with a consolidated EBITDA around €720m, and a consolidated net income of €133m (4.3% over sales).

---

[20] Re-adapted to maintain anonymity.

Trendy-Fashion was set up in the '70s, when the brand was developed by the founder. *Trendy-Fashion* produces clothing collections, complemented by a range of accessories. These include bags, shoes and belts. There is also a collection of scarves which is regularly updated and which features designs from the company archives. In a new development for the group, a concept for dedicated watch and jewellery boutiques has been pioneered in Dubai. Today the *Trendy-Fashion* Group owns branded luxury stores worldwide. There are currently one hundred boutiques in the most exclusive cities of the world, including Rome, Paris, London, New York, Dubai and Hong Kong.

> "Focussed on the idea of a world of fashion, glamour and sex-appeal" (Company website).[21]

The consolidated revenues of *Trendy-Fashion* are around €340m, with a consolidated EBITDA around €37m, and a consolidated net income of €9m (2.5% over sales).

Luxury-Fashion is a leading company in the luxury clothing segment with a diversified portfolio of products including classic menswear, women's apparel and luxury goods, sportswear, and accessories.

> "A style that recalls fairytales where a touch of freshness and of classic styles are recalled, emphasizing the glamorous, romantic and playful dimensions of an alternative world where anything is possible" (Company website).[22]

More than two-thirds of sales are generated in Europe, mainly through the wholesale channel. The group activities are broken down into three business units, covering the entire luxury and fashion sector with various brands. The company acquired numerous firms over the years with the purpose of diversifying its product offering and having differentiated brands. Some of these brands are owned (8) whereas some others are licensed (2). The company also owns a substantial portion of a US brand company. The company operates in over 110 countries, with more than 1,600 boutiques and 433 directly-managed shops. The

---

[21] Re-adapted to maintain anonymity.
[22] Re-adapted to maintain anonymity.

consolidated revenues of *Luxury-Fashion* are around €2,360m (+10.49% yearly growth), with a consolidated EBITDA around €375m, and a consolidated net income of €133m (5.6% of sales).

5. Controlling creativity in fashion firms

Fashion firms compete through aesthetic elements and the symbolic value of their style embedded in the visual characteristics of the individual elements of a collection (including clothing and accessories) and how they are combined. Fashion style is the result of choices concerning textiles and fabrics, weavings, colours, volume, shape, and silhouette (Davis, 1992; Volli, 1990). Fashion designers have to use their expressive freedom to continuously renew it.

> "First of all a designer has to use an expressive method, an expressive vehicle in the design". "Creativity has an expressive freedom in work techniques, volume, colours" (Chief Designer, *Trendy-Fashion*).

Fashion firms develop a coherent and distinctive style in their collections.

> "It is necessary to create a dynamic and cohesion for an image that is global together with accessories, bags, to have something complete. It could start with an exhibition or a book" "(Creative Direction, *Trendy-Fashion*)

For these reasons the chief designer has to coordinate ideas and intuitions with the other members of their design teams and the whole organization.

> "The design leader is 'the voice', but the voice in an orchestra". "The creative individual that can work in team is a creative person that generates synergies". (Controller of *Trendy-Fashion*).

In addition, fashion designers have to develop their solutions consistently with the fashion trends of the moment to enhance the attractiveness of their products.

> "You cannot avoid to know how the creativity process proceeds, with the need to make a product that is feasible, first of all saleable, in line with what the market requires" (Chief Designer of *Trendy-Fashion*)

For example, with reference to glasses, it was reported that:

> "If in a certain period, the market proposes a little mask, all companies make a little mask" (Creative Direction of M-Brand, *Deep-Fashion*).

Given these considerations, fashion companies need to control creativity directed at stylistic innovation, which is compatible with the firm style and convergent towards industry tendencies.

Existing control concepts are a fruitful starting point to address these points (Arieti 1976). Yet, interpreting them the same way they are in other settings fails to capture the uniqueness of our data. The traditional emphasis on addressing goal divergence, agency perspective, and extrinsic motivation is less relevant. Shirking and self-interest in the sense of rent appropriation is not relevant in these environments. Fashion designers like to create and have a strong intrinsic motivation.

> "Designers are satisfied and happy because they see that their creations are successfully sold, are included in publications" (Marketing Director, *Luxury-Fashion*).

> "All that was given to the designers is freedom in creativity. It is taken as a gift, a gift in terms of trust from the creative director. It's an opportunity to emerge, to show your ability" (Creative Direction, Trendy-Fashion).

Therefore, looking at MCSs from the perspective of motivating effort-adverse agents, and rent allocation does not capture in full why MCSs are relevant. Inspiring, creating a community spirit through common metaphors, interpreting moods and feelings, or shaping, negotiating, and legitimizing meanings are much more salient. Thus, to understand MCSs in these environments, existing concepts and frameworks have to be re-weighted reducing their focus on shirking, incentive provision, plan execution, and task coordination. Moreover, existing control models fail to reflect some observations that require new concepts to fully explain the phenomenon of creativity for stylistic innovation. Our theory leads to two concepts that reflect the main roles of MCSs in creative environments: controls that formalize the creative space of the creative team (directional) and controls that stimulate creativity (inspirational).

5.1 Directional and Inspirational Controls for Creativity

Our first research question aimed at investigating the kind of controls adopted in small, creative teams directed at stylistic innovation. From the evidence collected, there are two types of MCSs in these settings: directional and inspirational.[23] Directional controls configure the creative space making explicit the degrees of freedom available to the team. They are neither intended to extrinsically motivate certain behaviours and entice people to exert certain types of effort. Nor they constrain behaviour because of asset misappropriation concerns.[24] Rather they define the rules of the game clarifying what resources are available and what other parts of the organization can offer and expect to get. Directional controls make explicit the constraints facing the creative team. Inspirational controls stimulate creativity of the design team to activate intrinsic motivation, freedom, and autonomy to create. They provide a common source of inspiration to make sure that the design team comes up with a collection that is harmonious and convergent towards industry trends. They are the mechanisms that make sure that individual and group-level creative processes are consistent, so that the inspirations of individuals can be combined and achieve convergence around an emerging final idea. From the analysis of the cases these two types of controls have emerged, as reported in Figure 1.

Some directional mechanisms are <u>accounting-based</u> and are meant to set targets and monitor results. *Expense budgets* set financial constraints, for each of the phases of the creative process and, in some cases, for the various types of discretionary activities.

---

[23] The findings reported in the figures are based on the analysis of the data from *Deep-Fashion* plus the additional evidence and elaboration of the findings from the other five companies.

[24] Thompson (1967), Ouchi (1979), and Merchant and Van der Stede (2003) framework addresses how to align decision criteria (clan or personnel MCS) or how to reduce the consequences of goal divergence through explicitly dictating actions (action MCS) or objectives (results MCS). Asset misappropriation plays a significant role (Merchant and Van der Stede, 2003) which illustrates this perspective. Because these issues are of minor relevance in our setting, this framework does not illustrate our observations and does not capture their essence; even if, as with any other framework, our observations could be forced into it. A similar issue emerges when trying to explain our observations using an agency theory perspective. Its basic assumption of conflicting goals between principal and agent are of minor relevance to our research setting, even if we could fit our observations into a principal-agent perspective.

"Basically we look at … the achievement of budgeted costs and the level of efficiency achieved. In the development of a product there is the possibility of an assigned budget and of efficiency in the achievement of an objective, in line with a minor cost to get there" (Human Resource Manager, *Trendy-Fashion*)

Cost cards report the financial implications deriving from the choice of materials and product development options that designers select and is the basis to reconcile the designers' needs with that of the operating departments:

"In the cost cards you have to report all the materials, the working phases, the ironing, all the maintenance that is necessary during the process, the fixed costs, and then the firm's mark-ups" (Collections Coordinator, *J-Brand, Deep-Fashion*).

"The product manager who knows about work costs manages the 'crazy' designer on the one hand and the marketing director on the other" (Product Manager, *Luxury-Fashion*).

Reports on the previous year's sales indicate the most successful fabrics, colours, and patterns, in order to analyse those dimensions of creativity that have been particularly appreciated by the market:

"When a collection is closed, commercial people collect 'sell out' data, in other words what did not work in the previous season" (Collections Coordinator, *J-Brand, Deep-Fashion*).

"A small 'conclave' analyzes the sales of the previous season … The design manager is informed about the length of the skirts that sold best or the details of the jackets that were more liked. He receives a sort of input to consider in the development of the following collection" (Product Manager, *Luxury-Fashion*).

Some other directional mechanisms are <u>behavioural</u> in nature and define the interfaces of the creative department with the rest of the organization. As such they define the creative space of the design team. The *collection brief* lists the number of models per category such as skirts, trousers, or suits. This input usually comes from the marketing department, given past experience and the strategy going forward. As emerged in *Best-Fashion*:

"Each brand must agree to develop a plan indicating the number of articles, the number of options, values, deliveries, etc." (Technical Director, *Best-Fashion*).

The assistant of the chief designer of one of *Deep-Fashion*'s brands confirmed this point:

"We receive a briefing, where we are told how many fabrics we can use in the collection, fabrics combined with prints, average price, also the different categories of cloths"

(Assistant Chief Designer, *Deep-Fashion*).

The *collection calendar* describes the timing of the various phases of the design process to meet the deadline of presentation, manufacturing processes and distribution to shops. The collection calendar is anchored by the timing of fashion shows. This explicit timing defines deadlines for each of the stages (except for minor or unexpected iterations) and provides a rhythm to the process that disciplines the creative process.

> "The operational calendar indicates the dates by which, with no exception, the products should be ready" (Collections Coordinator, *J-Brand, Deep-Fashion*).

Technical cards record all the information concerning a garment. These cards are developed throughout the creative process and record alternative ways to develop designers' ideas. They serve as interface with production to make sure that the end product captures the subtleties of the design.

> "When you prepare the product card for a jacket, you start to include the key fabric, then you include the construction of the jacket, then the façon, expressed in terms of minutes, calculated by the 'time and methods' office; you add the internal lining, the buttons; normally there is an embroidery that is applied, the internal adhesives, which are useful for the structure of the jacket" (Collections Coordinator, *J-Brand, Deep-Fashion*).

Additional behavioural controls are used to negotiate and legitimize the choices along the creative development process. *Meetings and gates*[25] at the start and at the end of each phase involve managers from other departments to provide feedback and redirect the thrust of the collection if needed, with the aim of negotiating and legitimizing the remaining stages of the creative process.

> "So we have the meetings to try the cloths, where you meet the designer and you start to revise things. From then, there is a second meeting and then a third meeting for a final coordination" *(Collections Coordinator, J-Brand, Deep-Fashion).*

Still, some other directional mechanisms focus on <u>personnel,</u> and define the pool and mix

---

[25] Gates are meetings organized between managers at the end of each phase of the product development process where progress is checked and compared with the expectations to see whether the plan needs to be adjusted in light of new information (Cooper 1990).

of talent in the creative team. *Selection of designers* defines the team characteristics and dynamics in the creative process. Creation in all the companies in our sample is a group effort. Designs are not traced to particular designers and the contribution of each person is evaluated not only in terms of her designs but her contribution to the group. The type and experience that designers bring in, the degree of designers' *turnover* and/or *free lance designers' rate over total designers,* while moving from one collection to the next, affect the type of creativity achieved by the design group. The *Even-Fashion* CEO described the need for explicit policies to build the right teams: "We make sure that we have the right people on the boat". The marketing director of *Luxury-Fashion* described the characteristics of their designers:

> "They are external people, free lance, who work exclusively for *Luxury-Fashion.* They are very often young guys. They are individuals with a high aesthetic perception, they are careful in noticing details especially in the social environment, they are hard workers, and they are able to exclude fantastically their creative reasoning from any kind of external influence. They are able to create with purity. They are difficult people" (Marketing director of *Luxury-Fashion*).

Inspirational controls aim to stimulate individual ideas and transform them in a "collective" collection that is consistent from an aesthetic point of view and convergent towards market trends. Inspiration is managed through formal efforts to *absorb ideas* by means of immersing the group in their customers' environment and reviewing magazines, internet and other information sources.

> "We have also some systems, thanks to internet, of webcam control on the best world points of sales, to understand the current windows, to understand, what they are bringing out" *(*Product Manager*, Luxury-Fashion).*

Alternatively, inspiration may derive from trips, exhibitions or archival search processes.

> "Research takes place through vintage, by means of dresses that can be found in various antique markets, so that you can take some ideas from there for a material, a colour, a pattern or a proportion" (Creative Direction, *Trendy-Fashion*).

> "Things that could be interesting for me now are art exhibitions or even more books, which for a moment may activate a process that may recall an idea that you have in your mind" (Creative Direction, *Trendy-Fashion*).

> "There are a lot of trips everywhere, Tokyo, Los Angeles, New York, Paris, Milan, Las Vegas, and a week in St. Tropez" (CEO, *Even-Fashion*).

> "For the C&C line there is Francesca, who scouts the historical archive" (Controller, M-Brand, Deep-Fashion).

So it is the availability of the company to provide time and financial resources for the search that allows this process to take place.

> "The firm gives creative people moments, moments that are used to do research trips and in some cases this is useful for them to understand what is happening in the world" (Creative Direction, Trendy-Fashion).

> "The design office is provided with a budget to do some research exploration, a budget that has to be met" (Creative Direction, Trendy-Fashion).

Ideas collected are then formalized through the definition of a *theme or mood of the collection*. It inspires designers to create around a common vision. The head of the designers' department defines this theme or mood.

> "What is the theme of the collection that I would like as inspiration? Theme … It is the starting point that the designer gives and everybody refers to" (Collections Coordinator, *J-Brand, Deep-Fashion*).

Ideas are then made visible. The work space of the creative teams has *posters* where team members hang *pictures* inspired by the *drawings* and *photos.* The end result is a collage that reflects the theme. For instance, if the theme is water, the collage will show different representations of water, pictures of objects inspired on water.

> "Before letting the pencil go, posters are prepared, moods are developed and in this preparation, there is a collection of images, materials, colours, in some cases verbal downward strokes … in the company I used to work, the chief designer used to tell rhymes and fairy-tales to make us understand what was required in terms of the spirit of the collection" *(*Product Manager*, Luxury-Fashion).*

Another important part of the creative activity and source of inspiration is to be embedded in the fashion environment and participate in social happenings such as *fashion fairs*, *materials exhibitions*, and *mundane events* such as galas. The objective is to converge towards the trends of the fashion community and society, more in general:

> "We are all, how can I say, rather embedded in how the other companies are behaving

in terms of trends, what they plan to do, what they are doing, and what they are not doing" *(*Product Manager*, Luxury-Fashion).*

"Milan is a world in which all the guys working in design departments, overall the youngest that come from the same schools, know each other and know everything about each other. … In Milan there are all in the same place, in the same bar, in the same disco, you find them always there. As regards the high levels, the chief designer participates in social events. .. She is a friend of Miuccia Prada, in other cases there are more formal relationships. They are all friends on facebook, twitter and so on" (Creative Direction, *Trendy-Fashion*).

Table 1 reports a summary of the evidence of controls across the six companies.

5.2 Contextual variables and controls for creativity

Our second research question aimed at exploring alternative explanations for differences in the MCSs across small, creative teams. The MCSs in our sample exhibit a comparable structure (Figure 1). This observation is consistent with isomorphism (Carruthers 1995) and equifinality (Malmi, and Brown 2008). Yet, the specific characteristics of the controls were different across companies depending on the strategizing process used by firm, both in terms of structural view (how the company is positioned in the market) and the resource-based view (the key resources that are at the basis of the strategy-making process) (Cillo and Verona, 2008) (Figure 2). This cross-sectional variation can be seen comparing firms that are positioned differently within the industry (structure) and the role of the chief designer in style searching and making key design choices (resources) (Cillo and Verona, 2008). The comparison of companies in the "mass market" segment (low positioning) and the corresponding market-driven search, with those of "fine fashion" segment (high positioning) with the related designer-driven search, illustrates this point.

The approach of companies positioned in the "mass market" segment and a market driven approach is best illustrated by the 'motto' written at the back of the desk of the technical director of *Best-Fashion,* and visible to everyone talking to him:

"Creativity is a serious matter only if there is discipline, steadiness, and rules" (Technical Director, *Best-Fashion*).

Directional controls in *Best-Fashion* were detailed and imposed significant constraints on the designers. They defined a much narrower creative space with tight behavioural restrictions to regulate creation:

> "There must be rigour, in other words an analytical approach, very precise rules" (Technical Director, *Best-Fashion*).

In addition, the number of variants (e.g. colours, fabrics, accessories etc.) was clearly defined for the designers and the opportunities for them to choose different variants were limited. The technical director described it as:

> "We develop a collection brief for the semester, for example the fall-winter collection 2009. The brief includes the plans of all the activities that must be carried out to be ready for the collection presentation" (The Technical Director, *Best-Fashion*).

In contrast, firms positioned in the "fine fashion" segment and with a designer-driven approach set a more open creative space. Designers faced fewer operating constraints. The interaction between creation and business needs happened through an emphasis on negotiation and legitimization of creative paths during the entire design process, reflecting more of an experimental approach. The collections director of *Luxury-Fashion* described the adjustments made during the design process:

> "There are always adjustments to make during the process and at the end things that are really interesting may emerge, those that make the sales" (Collections Director, *Luxury-Fashion*).

The importance of this less constrained approach was also confirmed with reference to one of the brands of *Deep-Fashion* positioned at the "fine fashion" segment, where different trials were admitted during the process.

> "We want to have trials … you try different designs" (Collections Coordinator, *J-Brand, Deep-Fashion*).

Designers in "fine fashion" firms had the freedom to choose fabrics; operational criteria came only as suggestions to their decisions. These decision rights reflected a more dynamic creative space where boundaries were negotiated. Not only were designers given the

responsibility to choose the fabrics, but they initially defined their own boundaries around fabrics and the operational side adjusted them through the design process.

> "Creative activities are bound to have many changes throughout the process, especially when the product is fashion ... Sometimes designers with the last changes can create interesting products" (Collections Coordinator, *J-Brand*, *Deep-Fashion*).

Directional controls moulded the creative space over time. Rather than setting hard behavioural constraints from the start, they were adjusted initially through designers' decisions and then through suggestions. Numerous ideas were proposed and then filtered while the products were developed.

As regards inspirational controls, they were more open and consisted of regular participation in fairs and social networking events, and gave designers significant flexibility, without a clear theme defined in advance.

> "The theme is not there. You build the collection somehow for stories, but they are not so clearly defined. The creative director selects designs that are consistent after they have been developed" (Creative Direction, *M-Brand, Deep-Fashion*).

This was also confirmed by the creative direction of a brand of *Trendy-Fashion*, positioned at the high end of the market.

> "The theme is kind of there. However, you will never hear the chief designer say 'This year I was inspired by India, or this year I like the '60s'. … It will never be like 'we got inspired by Brigitte Bardot'. That would kill us. We start from some images of an artist, who can inspire the idea of volume. This idea is then reinterpreted and used for the cloths. … In the last atelier we had the 3-D, but we got there through a path" (Creative Direction, *Trendy-Fashion*).

Regarding the role of the chief designer in style searching and making sense of market change, the ability to impose her/his perspective and replicating her/his viewpoint and act as the primary actor in the design process and collection choices emerged from his/her fame and reputation, in many cases due to the fact that the firm's brands included her/his name.

> "You have to understand whether the chief designer is a creative person with experience, if he is part of the family, he has the name of the family or he is an external person, because the level of influence and the degree of penetration on the creative part is different. Because in that case the creative perspective has a stronger power" (CEO, *Trendy-Fashion*).

The chief designer can be either part of the company or operate in a different organization acting as a licensor. When the designer is strong, the level of freedom is higher with less stringent directional and inspirational controls. The evidence supporting this finding emerged very strongly at *Luxury-Fashion* where the operations director argued that when the chief designer was still in the company, things were very different. If he thought that a certain thing should be done on the basis of a futurist view, none could stop him … "not even the powerful American investors" (Operations Director, *Luxury-Fashion*).

A summary of the evidence to compare the variation of controls across the six companies with different market segments and corresponding roles of the chief designers is reported in Table 1.

5.3 Discussion

The controls found in the six companies show their role in structuring the environment of design teams to enhance creativity, formalizing the creative space set by the rest of the organization and activate the sources of inspiration. They manage the tension between too much freedom that may lead to an inconsistent collection that the business cannot leverage, and too narrow creative space leading to a dull collection that does not sell. Regarding the first research question, we found a combination of directional and inspirational controls.

Directional controls define a set of limits that the creative team has to follow. Their role is consistent with the creative literature's insight that well-defined limits enhance creative behaviour (Prahalad, and Mashelkar 2010). These controls overlap the traditional classifications proposed by Thompson (1967)-Ouchi (1979)-Merchant (1985) (TOM). However, these classifications interpret MCSs from a perspective that overlooks the main dimensions relevant to understand control in creative environments. They highlight certain dimensions of control that are secondary to creative settings. While TOM classifications

focus on how to reduce the effects of goal divergence - changing people's values (personnel), limiting their actions (process), or aligning through incentives (output) - in our research setting, these issues are minor because all designers are mainly motivated by intrinsic motivation and the control mechanisms are used for shaping the creative environment and inspire creative individuals.

Directional controls share some characteristics of the level of controls (LOC) diagnostic systems in that some of them use targets (such as expense budgets) that define a limit. However, in contrast to diagnostic systems, these targets are not objectives with the purpose of monitoring the activities of the creative teams. Rather they are limits that do not trigger an investigation but lead to a renegotiation of the particular limit, making the creative space a dynamic one.[26] Directional controls share also certain characteristics of the Simons' concept of boundary systems. Yet, they are neither related to business strategy nor to behavioural boundaries (such as codes of conduct); rather they define the creative space that shapes creative acts. Because they configure the creative process, managers shape it through the design of these systems. Some companies choose to set narrow creative fields at the risk of strangling creativity; others choose systems with broad boundaries at the risk of being unable to build a consistent business out of the outcomes of the process. Directional controls are the interface between the design teams and the rest of the organization in that they reflect their expectations. Nevertheless they are more buffers that isolate the creative teams from the business needs of the rest of the organization rather than coordination systems. These controls evolve every season across various dimensions such as the product mix that marketing demands, deadlines that manufacturing requires, or fabrics selected early on in the

---

[26] Directional controls share characteristics of boundary and diagnostic systems plus they have their own characteristics. They share the idea of defining a space with boundary systems (business space for boundary systems and creative space for directional controls) and the idea of limits with diagnostic systems. Yet they are unique in that they define the creative space (degrees of freedom) in terms of resources and expectations from other parts of the organization.

creative process.

Inspirational controls complement directional controls and are meant to stimulate creativity and align the efforts of creative designers. They support the exchange, combination and construction of ideas as creative individuals collectively engage in the development of a new collection. Inspirational controls consist of scheduled trips, archive search and definition of themes. These mechanisms do not define the creative space but rather stimulate creativity within it. From these inputs, creative individuals use then other inspirational controls (sketches, pictures) to represent preliminary ideas and visualise the links among them and to foster the development of broader perspectives. By bringing ideas 'out of the mind', inspirational controls provide creative individuals with 'physical handles', something tangible that can foster the integration of early individual ideas and the elaboration of more refined interpretations of the spirit of collection, necessary to achieve an aesthetic order (Stigliani and Ravasi, 2012). Inspirational controls are then central for the gradual integration of early individual ideas and for the collective effort of developing a consistent set of elements, given the physical presence of material artefacts that facilitates the exchange of feedback and the provision of common visual referents for the structuring and management of the creational effort[27]. In addition, inspirational controls contribute to developing products that are socially convergent. In fact, there is a trade-off between product differentiation and market innovation, and therefore the need to develop new ideas without losing their fit with the market. In industries where the stylistic dimension matters, consumers expect novelty in their goods, but they also want novelty to be accessible and familiar. Companies are pushed to seek novelty that differentiates products without making them fundamentally different from others in the same category. This novelty represents a recombination of existing elements and styles that differentiates, but does not break existing

---

[27] On the role of visual artifacts in collective design efforts see Stigliani and Ravasi (2012).

artistic and aesthetic trends (Lampel, Lant and Shamsie, 2000). To this end, inspirational control resulting from participating in fairs, exhibitions and social events provide preferential personal and social connections that help to operate in the field of existing social conventions. The purpose of inspirational controls is, thus, to stimulate creativity and guarantee that the creation of collections is characterised by aesthetic and social compatibility.

> "[…] it is not possible to combine a drawing of a dress of the '20s, a silhouette of the '50s, trousers of the '80s" (Assistant Chief Designer, *M-Brand, Deep-Fashion*).

Inspirational controls share some characteristics of Simons' belief systems, in that they speak to people's higher values, and share also some characteristics of interactive systems, in that they stimulate dialogue. Yet, they are not long term aspirations that motivate people because of the company's mission in society. Rather, they are themselves short-term in that they last one collection, and they are not intended to motivate and align organization and personal goals but shape the creative process. They differ from belief systems also in that they are used to provide a unique perspective to observe society and learn from it, rather than diffuse a certain culture among organizational members. These controls create a common playing ground for creativity to express itself consistently across the group. They also reinforce intrinsic motivation with identification in Adler and Chen's (2010) terms, where designers adapt the inspirational themes for the collection as their own. These controls are specific enough to create a consistent collection with a common theme yet not too narrow as to constrain too much the creative process that fails to differentiate the collection. They also are carefully chosen because inspirational controls built around the wrong theme can lead to failed collections. Inspirational controls also structure the exchange of ideas to develop and negotiate the end objectives of the creative process. This support to the dialogical discourse in search of meaning to new designs shares with Simons' concept of interactive systems the

idea of search and face-to-face exchanges. However, these exchanges are mainly local and do not involve members of the top management team.

Regarding the second research question, we found that directional and inspirational controls differ, depending on the environmental context and the strength of the chief designer. More specifically, mass market positioning fosters directional and inspirational controls that define a narrower playing field for designers. Performance targets (budget, costs, technical requirements) are specific, well defined and complete, reviews are frequent and detailed, and theme and metaphors are more focused. For instance, *Best-Fashion,* positioned at the low end of the market, sets clear target levels from the beginning of the creative process to maintain a low level of complexity, and the corresponding cost, in terms of the number of items, number of colours, number of fabrics, number of accessories, and level of outsourcing.

> "We have to pursue revenues objectives, keeping complexity under control" (Technical Director, *Best-Fashion*).

Moreover, in mass market companies with a more limited role of the chief designer the development of the collection proceeds on the basis of a specific theme or mood defined by the chief designer.

In contrast, fine fashion positioning fosters broader directional and inspirational controls with a larger playing field to develop creativity. Performance targets are defined in terms of corridors and not specific targets, reviews are characterized by negotiation and legitimization, and broad indications and intensive networking activities guide collection development.

In other words, market positioning from "mass market" to "fine fashion" is related to directional controls that define progressively narrower creative spaces emphasizing business constraints coming downstream. Higher market positioning requires broader creative fields to

take advantage of these additional degrees of freedom and the design of MCSs reflects this additional space for creativity to flourish. For example, at *Multi-Fashion, Trendy-Fashion* and *Luxury-Fashion* creative teams work with directional controls that define broader creative spaces, and creative outcomes are moulded through a negotiation and legitimizing process. More items are proposed and then progressively discarded to fine tune the contents of the final collection.

> "There are always adjustments to make during the process and at the end things that are really interesting may emerge, those that make the sales" (Collections Director, *Luxury-Fashion*).

Furthermore, the characteristics and role of the chief designer affect the mode of directional and inspirational controls. More specifically, when the leader is a strong ambassador of the design team within the organization and (s)he is able to affect most of the changes occurring with the company, directional and inspirational controls are looser, whereas when her/his ability to influence decisions is more limited inspirational and directional controls are tighter. The strength of the chief designer derives from the visibility s(he) has on the market due to either the reputation developed among consumers over time or the incorporation of her/his surname in the brand designation.

Our analysis has confirmed and expanded some of extant knowledge in the literature. First, it supports some of the predictions of the psychology field, indicating that intrinsic motivation matters in small creative teams (e.g. Mainemelis and Ronson, 2006; Dewett, 2007); however, our conclusions are more aligned with recent contributions that suggest that intrinsic motivation needs to be complemented with identification because individuals need to develop an impulse to work that is consistent with their values and goals (Adler and Chen, 2011). So personnel control in the form of selection and training procedures becomes essential in that it is necessary to identify individuals that share the values of the company and are willing to interiorize them. Our work is also in line with the management and

marketing literatures, when it illustrates the importance of considering different social domains for creativity and of aiming at focussing efforts when designing management controls. In fact, the interaction between the creative teams and the functional departments is mediated through the use of directional controls that help to negotiate and legitimize the choices along the creative development process. Behavioural controls in the form of collection briefs, cost cards, technical cards, operating calendars and gates and meetings are important tools to delimit the space (Ford, 1996) and time (Chandy et al. 2006) of creative teams, filter a moderated number of ideas (Chandy et al., 2006) and legitimise final decisions (Drazin et al. 1999). With reference to the management control literature, our analysis confirms the relevance of accounting controls (in the form of past year performance analysis) to stimulate curiosity and activate dialectical discussions on what was successful and why, as suggested also by Heberg and Jönsson (1978) and by Nixon (1998); however, it suggests the adoption of new performance perspectives that are based on stylistic dimensions (level of sales of a certain colour, pattern, fabric, etc.). Our work confirms also the use of some of the principles related to the enabling/coercing controls framework (Ahrens and Chapman, 2004; Jörgensen and Messner, 2009). More specifically, directional controls support internal transparency within creative teams and global transparency between the creative teams and other functional groups, and their design is inspired by the principle of flexibility. However, this principle is contingent upon the variables that affect controls in creative teams. Some of these variables are common to other contexts, whereas some others are specific to creative teams. More specifically, our data confirm the relevance of task complexity (Ditillo, 2004) in the design of controls of creative teams (depending on whether the team designs a premium line, a second line or a third line), but the relevance of this variable is secondary and subordinated to market positioning and the leadership of the chief designer, whose roles have been only marginally considered in previous literature. Finally, our findings complement

Davila (2000), in suggesting that not only are controls in a research and development context not mainly focussed on reducing uncertainty, but they are also important in defining the creative space and inspire creative individuals. To this last end, the identification of inspirational controls can be considered as the main achievement of our study.

6. Conclusions

Recent contributions in management accounting show the various impact that management controls can have on innovation (e.g. Ahrens and Chapman, 2004; Bisbe & Otley, 2004; Davila, 2000; Davila, Foster and Li, 2009) and, more recently, creativity (e.g. Adler and Chen, 2011; Jeacle and Carter, 2012). However, extant studies have predominantly concentrated on product development characterised by technological innovation and have ignored stylistic innovation. The present work has addressed this void by highlighting the role and characteristics of control mechanisms that are used in small-scale, collaborative creative teams directed at the stage of ideating products characterised by a new style.

We have found how controls in creative teams require interpreting these mechanisms as enablers of creativity. Traditional perspectives that view these systems as tools to reduce the consequences of goal divergence, motivate through extrinsic incentives, coordinate routine activities, and manage agency relationships are much less relevant in creative settings. Consistent with previous findings and arguments that interpret MCSs as detrimental to creativity, these roles are almost absent in creative settings. Rather, management controls are used as mechanisms to set the creative space and inspire creative people. In doing so, they support individual and group characteristics that the creativity literature has found to be relevant. These mechanisms are not detrimental, instead they enhance the creative process clarifying the constraints that define the creative space and creating a collective mind through common themes.

We have also illustrated how organizations define the space of creative teams and inspire them through directional and inspirational controls. Not only is it necessary to coordinate tasks and activities, but also to make sure that idea generation and development are carried out in a way that guarantees aesthetic and social convergence (Cappetta et al. 2006). Directional controls set objectives in terms of the amount and combination of resources available to teams. For instance, directional controls modulate the type of people that join creative teams, and the mix between internal and free lance designers. They also specify the resources available to create as well as the product mix that is expected from the creative process. In addition, they establish communication channels with downstream functions to negotiate and legitimize the outcomes that come out of creation. Inspirational controls are designed to inspire around a certain theme to have a collection that is characterised by aesthetic order and social compatibility where each garment reinforces the meaning of the collection and converges towards market trends.

Finally, we have shown how controls that fulfil similar roles and share similar designs across the companies in our study can shape very different creative spaces through their parameters and their use. Building on insights from the creativity and management literatures, we have identified key variables related to the environment as well as to the characteristics of the chief designer, which are associated with this variation. Different variables affect different controls that define broader or narrower creative spaces and different stimuli for inspiration.

MCSs in creative environments is a fruitful line of future research as organizations move further towards sourcing their competitive advantages from creative processes for developing new style as much as they do for improving technology. Rather than toning down MCSs as the relevance of creativity increases, MCSs need to be interpreted from a new perspective unrelated to the traditional goal divergence perspective, and be designed with different

objectives and features. Our findings raise several questions for forthcoming research. First, the study focusses on the fashion industry and it does not address to what extent the concepts of directional and inspirational controls are also relevant in other creative industries and whether they need to be further refined to fully understand MCSs and creativity. As we move out of "pure" creative environments directed at stylistic innovation into settings where technological innovation is combined with stylistic innovation and inspiration has to be balanced against more traditional coordination and goal divergence objectives, how the emerging tensions are managed is a topic that needs additional exploration. Further research may focus on a wider spectrum of variables that affect MCSs choices and effectiveness in creativity contexts. In addition, new conclusions may emerge by considering creativity and control in other levels of analysis. Despite these limitations, this work portrays an interpretation of MCSs as tools to enhance creativity and contributes with this new perspective to the debate on creativity and control.

Appendix A

The Design Process in Fashion Firms

The design process starts with the *research* phase where designers collect information on market trends, and predictions about how fashion will evolve. Designers use various sources of information. First, they have their own feeling of the market based on trade shows, what is currently selling, and their own contacts and experience in society. Second, they rely on trend reports that describe styles, colours, and fabrics popular for the coming seasons. Third, they visit textile manufacturers to procure samples of fabrics and make an initial selection of fabrics and patterns and match them to the expected products. Textile manufacturers are at the very beginning of the industry value chain and follow a similar research process ahead of fashion designers to select fabrics and patterns. These decisions are recorded in technical cards which become the documents where all the decisions and choices that will be made for a specific garment product along its life-cycle are recorded (Statistics 2008).[28]

Once designers have selected fabrics, colours, patterns, and shapes; the *design phase* starts. In this phase, designers sketch preliminary designs. Many designers use pencil and ink for their sketches and then translate it into digital blueprints with Computer-Aided Design (CAD) systems. These systems allow designers to see their designs on virtual models and in different colours and shapes, thus reducing the time to do refinements and adjustments in the later phases of prototyping and sampling (Parsons et al. 2004).

In the *paper pattern drafting phase*, the technical aspects of the designs are addressed. The paper pattern is the drawing on paper of the basic silhouette, indicating all the different parts and features of a garment (for example, in a female shirt, the neckline or collar, the

---

[28] For instance this technical card at one of the companies in the study (*Luxury-Fashion*) included the design of the product and the instructions to reproduce it.

sleeves, the pockets, the cuts, the lengths, the draperies). The paper pattern is then cut and placed on the fabric that is used, to decide how to cut it (Statistics 2008).

During the *prototyping phase,* prototypes are built using different materials or with small changes to the pattern to experiment various alternatives. These prototypes are then tried on human models to see them and decide whether adjustments are needed. This process leads to the selection of the designs that will be actually offered for sale (Statistics 2008).

In the *sampling phase*, once the final adjustments and selections have been made, the samples of the article using the actual materials are produced and marketed to clothing retailers through fashion and trade shows. This phase ends with the development of the different sizes of the same article.

This fashion development process, even if described as linear, is iterative in its nature and with an ample field for experimenting and discovery. Colour and fabric specifications or even the design can be re-evaluated in light of the new information generated throughout the various stages in the process. This iterative nature makes the focus on only one stage in the process limited if its interactions with the other stages are not considered.

Figure 1
Management Controls in Creative Environments
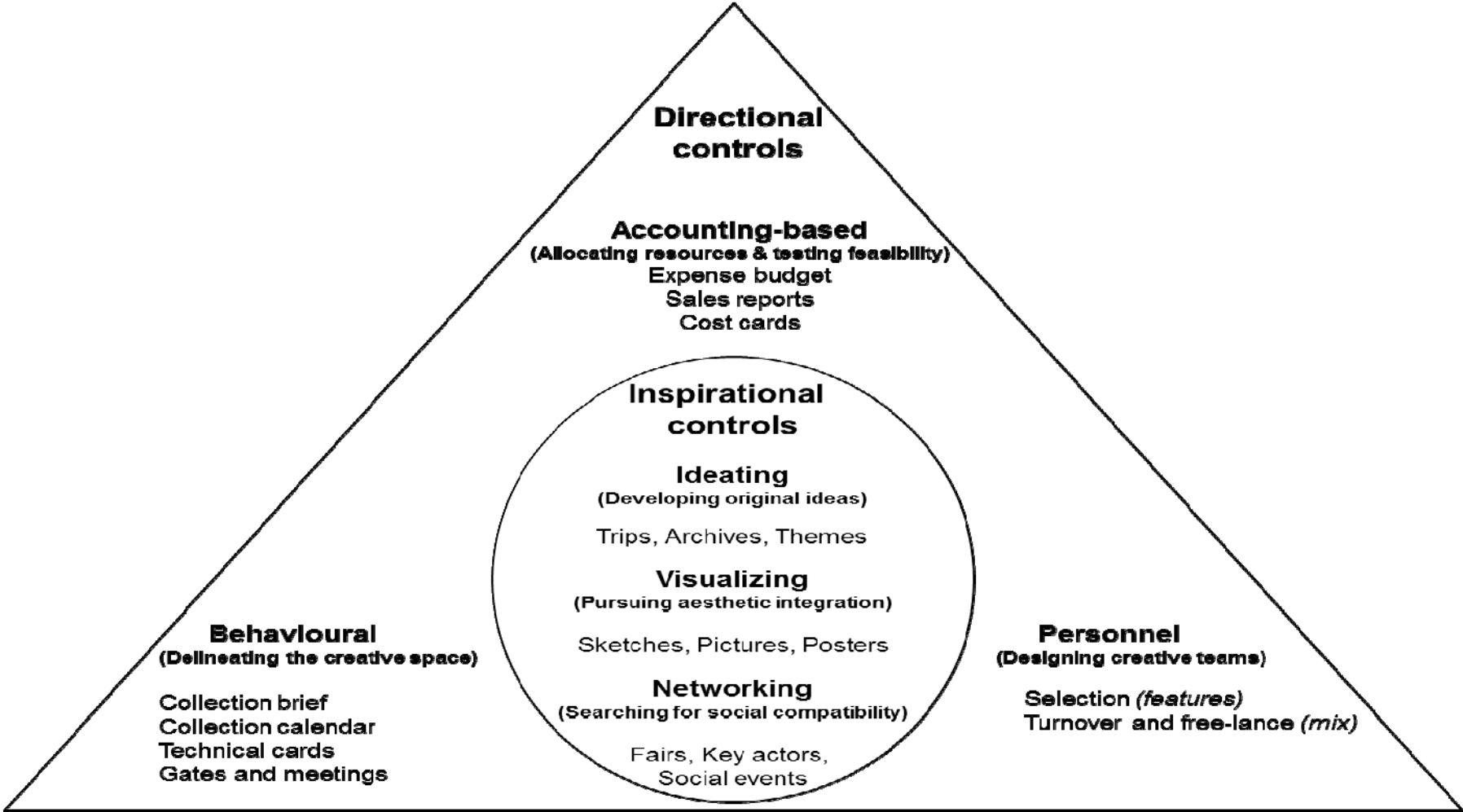
Figure 2
Variables Affecting Management Controls in Creative Environments

STRUCTURAL VIEW

RESOURCE-BASED VIEW

DESIGNER-
DRIVEN

Management
controls

HIGH

FINE FASHION

Loosening
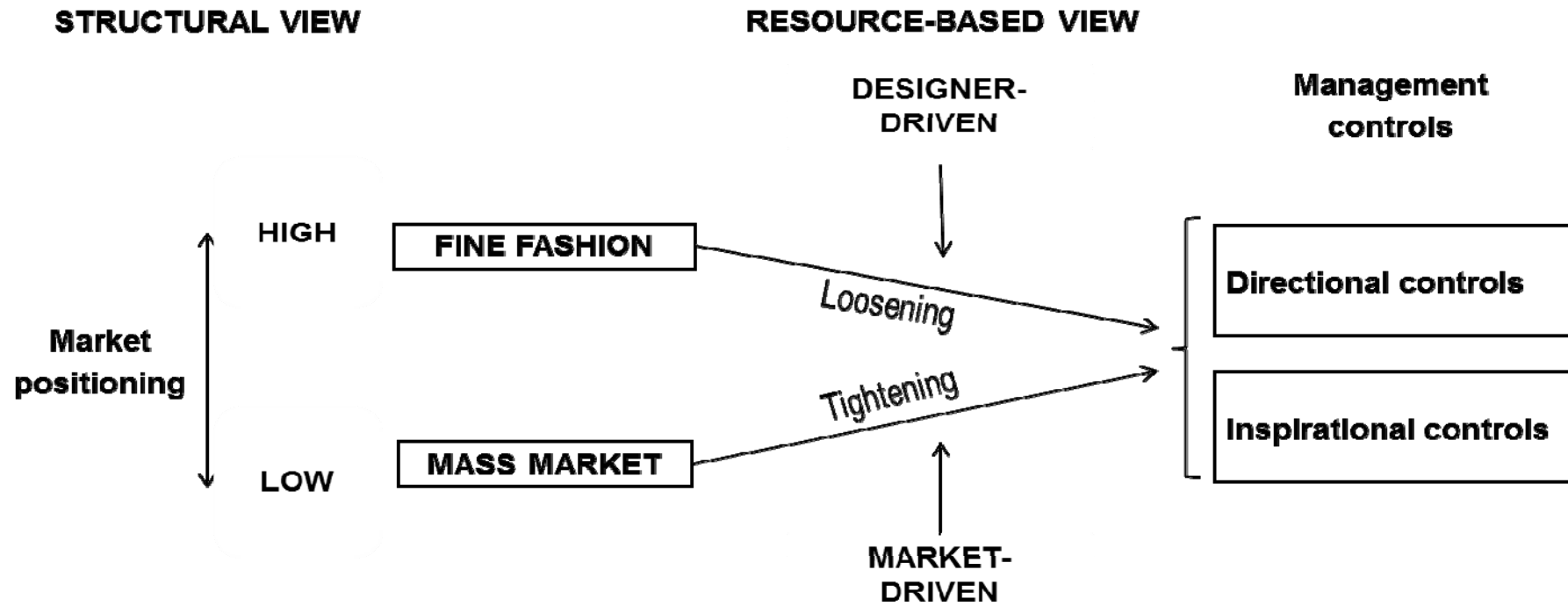
Directional controls

Market
positioning

Tightening

Inspirational controls

MASS MARKET

LOW

MARKET-
DRIVEN

Table 1
Comparative evidence on firms and controls

Companies	Best-Fashion	Even-Fashion	Deep-Fashion	Multi-Fashion	Trendy-Fashion	Luxury-Fashion
Market positioning	MASS MARKET			FINE FASHION		
Style search	MARKET DRIVEN			DESIGNER DRIVEN		
Slogans	"For people that love a combination of style, quality and passion and strive for clean and elegant collections" (Company website).	"For a happy life, happy environment, happy friends, happy existence" (Company website)	"From the elegance of women to a provocative style that combines both contemporary and innovative dimensions, focusing on both image and price in the realm of the leading global luxury brands" (Company presentation).	"For sensual, strong and successful women, who like to emphasize their evolution characterized by quality and passion" (Director of Strategic Planning).	"Focussed on the idea of a world of fashion, glamour and sex-appeal" (Company website).	"A style that recalls fairytales where a touch of freshness and of classic styles are recalled, emphasizing the glamorous, romantic and playful dimensions of an alternative world where anything is possible" (Company website).

Control mechanisms						
Directional controls						
- Accounting-based mechanisms	"Within the firm there are two key roles, technical department and time and methods department, which elaborate a series of statistics on historical sales data" (Controller, Best-Fashion). "We have to pursue revenues objectives, keeping the complexity under control. If we leave the complexity free we generate a lot of costs" (Controller, Best-Fashion).		"In line with the brief we select the colours, the fabrics, trying to comply with the average price as much as possible" (Creative Direction, M-Brand, Deep-Fashion) Collection income statement, split into wholesale and retail, quantity and sales, country by country (M-Brand) Report on "best seller" and "worst seller" (M-Brand) "One thing that we certainly analyse is the past, the collection of last year" (Collection director, A-Brand, Deep-Fashion) "In the cost cards you have to report all the materials, the working phases, the ironing, all the maintenance that is necessary during the process, the fixed costs, and then the	"The company develops a budget for each product and for each event" (Controller, Multi-Fashion) When the sales campaign begins, there is a need of developing the standard cost in order to set the retail price. You fill in the bill of materials and the work cycle card" (Controller, Multi-Fashion) "The allocation of indirect cost is done in a very simple fashion. On the basis of volume, you define an overhead rate as the ratio between the total indirect costs and the of materials and labour" (Controller, Multi-Fashion)	"Basically we look at volumes and revenues. Or development costs… the costs … the achievement of budgeted costs and the level of efficiency achieved. In the development of a product there is the possibility of an assigned budget and of efficiency in the achievement of an objective, in line with a minor cost to get there" (Human Resource Manager, Trendy-Fashion) "The person responsible for pricing , intended here as the monitor, proponent, is however the controller. Maybe an initial control on what are the objectives that the group has set, in the sense that controlling is not only monitoring but also planning and pricing" (Controller, Trendy-Fashion)	"A small 'conclave' analyzes the sales of the previous season … The design manager is informed about the length of the skirts that sold best or the details of the jackets that were more liked. He receives a sort of input to consider in the development of the following collection" (Product Manager, Luxury-Fashion) "The product manager who knows about work costs manages the 'crazy' designer on the one hand and the marketing director on the other. You manage the commercial director who would like to sell lining at hyperbolic prices, and you need to make him understand how you define this number. And I enjoy very much this because you completely close the door to creativity, and so to madness" (Product Manager,

			firm's mark-ups" (Collections Coordinator, J-Brand, Deep-Fashion). "When a collection is closed, commercial people collect 'sell out' data, in other words what did not work in the previous season, why it didn't work and in addition what was not liked, what are the technical problems encountered in selling the product – and this can include anything from the fabric, the weights, the appearance, the colours, the themes. All this information concerning sensations, emotions, what has been collected is written […]. So before starting with the spring-summer collection, I consider all the reports of last season. Of course it is just indicative, because this season could be completely different" (Collections Coordinator, J-Brand, Deep-Fashion).		"So cost centres, responsibility centres, which are involved in the process of product development, with a specific position in our internal income statement are considered as general overheads. So they are not in the cost of goods sold, it's outside the gross margin. We see it like a cost that refers directly to the volume of activity of the firm as a whole" (Controller, Trendy-Fashion) 'We have an income statement for the company as a whole and one for each collection. However you do not allocate the cost of the designers. All the other costs yes" (Controller, Trendy-Fashion)	Luxury-Fashion)

- Behavioural controls	"Each brand must agree to develop a plan indicating the number of articles, the number of options, values, deliveries, etc." (Technical Director, Best-Fashion) "Creativity is a serious matter only if there is discipline, steadiness, and rules" (Technical Director, Best-Fashion) "There must be rigour, in other words an analytical approach, very precise rules" (Technical Director, Best-Fashion). "We develop a collection brief for the semester, for example the fall-winter collection 2009. The brief includes the plans of all the activities that must be carried out to be ready for the collection presentation" (The Technical Director, Best-Fashion) "We define the rules within which the design office will	"There is very little hierarchy " (CEO of Even-Fashion)	"We are provided with a collection brief, with a split in categories of the collection, so you should give us, 10 drawings of coats, 25 drawings of jackets, 30 designs of suits" (Creative Direction, M-Brand, Deep-Fashion) "There is a general meeting in which all the pieces are tried, defects are removed, they are shortened, lengthened, shrinked" (Creative Direction, M-Brand, Deep-Fashion) "The commercial office sets up the collection brief, together with the collection office, the product office and the chief executive officer" (Director Collection Office, A-Brand, "It is more likely that the designers are employees" (Director Collection Office, A-Brand, Deep-Fashion) "In the fashion world, where there is a seasonal trend, there	"They develop collections on the basis of a merchandising grid indicating the number of lines for season, the number of materials, the price ranges, however the choice of materials and colour is totally free. The number of article is defined together with the merchandiser, but the chief designer will choose which products will be sold. What is defined is the number of lines and not the number of pieces" (Controller, Multi-Fashion)	'We have always been high in the number of colours cards. Then, there is gradual selection of colours while the collection is developed. As regards the number of fabrics, we have to comply with those indicated in the briefing that we receive, both the number and the typology that we have to have for each category, prices levels that we have to meet" (Creative Direction, Trendy-Fashion)	"We do this type of control, we give suggestions, and we start defining the first set of designs with the public of the collection, that is to say the famous commercial director, the marketing director, also members of the board of directors may appear, but not necessarily, and mainly the style director who recently is becoming a different role from that of the creative director. In these meetings, we define carefully the 'fallen', they are eliminated and we signal to the designer that the fallen models need to be replaced with some alternatives" (Product Manager, Luxury-Fashion) "I want to make a jacket with the shoulder straps, all built 'tailor' with a non twisted cotton, and I want to wash it … that means creating a monster, but explaining it is not easy so you have to

	operate, we provide them with the collection brief, merchandising plan, calendars, activity plans" (Technical Director, Best-Fashion) "(Designers) become part of a system and to work in the system they need to understand the method of work that we have. They need to acquire the method, to understand the design rules, the design tools". (Technical Director, Best-Fashion)		are operating calendars" (Director Shoes and Bags Collection, the P-Brand, "It is more likely that the designers are employees" (Director Collection Office, A-Brand, Deep-Fashion) "We receive a briefing, where we are told how many fabrics we can use in the collection, fabrics combined with prints, average price, also the different categories of cloths, such as, 10 coats, 25 jackets, 30 dresses, divided into the different categories of the collection … and then the number of variants you can introduce. If the total number of drawings is 100-110, the total pieces will be 130-140 because some clothes are repeated in different fabrics and can have completely different effects. One dress can be in embroidered chiffon while another is in unified crêpe" (Assistant Chief Designer, Deep-			look after him (the designer): 'How would you like it?' 'I would like it with this cotton … but I want to have it built' 'But you do not want to wash it, do you?' 'Yes, I want to wash it' 'so let's not have it built' 'Why?' 'Because it's crap' 'Yes, you are right' … so looking after him all the time" (Product Manager, Luxury-Fashion) "There are always adjustments to make during the process and at the end things that are really interesting may emerge, those that make the sales" (Collections Director, Luxury-Fashion)

			Fashion).			
			"The operational calendar indicates the dates by which, with no exception, the products should be ready. I use the conditional purposefully, and by which the designers have to produce their drawings to have the products ready for the collection presentation; keeping into consideration that we have to have, after presenting the collection, 4 operating weeks to produce the sample, at minimum" (Collections Coordinator, J-Brand, Deep-Fashion)			
			"When you prepare the product card for a jacket, you start to include the key fabric, then you include the construction of the jacket, then the façon, expressed in terms of minutes, calculated by the 'time and methods' office; you add the internal lining, the buttons; normally there is an			

			embroidery that is applied, the internal adhesives, which are useful for the structure of the jacket" (Collections Coordinator, J-Brand, Deep-Fashion) "So we have the meetings to try the cloths, where you meet the designer and you start to revise things. From then, there is a second meeting and then a third meeting for a final coordination" (Collections Coordinator, J-Brand, Deep-Fashion) "We want to have trials … you try different designs" (Collections Coordinator, J-Brand, Deep-Fashion) "Creative activities are bound to have many changes throughout the process, especially when the product is fashion ... Sometimes designers with the last changes can create interesting products" (Collections Coordinator, J-Brand,			

			Deep-Fashion)			
- Personnel controls	"There are girls, very young girls, who are in line with the current tastes and develop collections on the basis of information on market trends with research journeys to understand the tendencies, how the world is moving" (Technical Direction, Best-Fashion) "Generally designers come from style schools. And given that we are international we have also people that come from all around the world. We have to have representativeness of the various world realities. There are important schools in London and in Milan" (Technical Direction, Best-Fashion)	"One important thing is that all the creative people are employees, internal, so that we have continuity'" (CEO of Even-Fashion) "The values of the company are transmitted day by day with training initiatives" (CEO of Even-Fashion) "We make sure that we have the right people on the boat" (CEO of Even-Fashion).	Premium line, team made up of 4 people, rather young, most of them full time employees, with various levels of seniority (25 years, 15 years, 2 years, a few months), exclusive (M-Brand) "In the creative team we have a lot of employees, a few collaborators, and some project consultants" (Creative Direction, M-Brand, Deep-Fashion) "All the members of the team of the premium line take care of all the categories of this line" (Creative Direction, M-Brand, Deep-Fashion) External consultants (P-Brand, Shoes and bags) "It is more likely that the designers are employees" (Director Collection Office, A-Brand, Deep-Fashion)		"For the premium line we have two seniors, then we have a girl, who has worked here for four years, we have a boy who is doing an internship and then a person for the shoes. In the past we were also less, on average five" (Creative Direction, Trendy-Fashion) "We have the accessories department, in other words that part of bags and leather articles, in which we have two people. Then we have shoes where we have other two people. Then bijoux where we have one person. We have also another creative person, who supports all the other lines, not only the premium lines" (Creative Direction, Trendy-Fashion) "The real designer is the one that draws tri-dimensional. He is the one that together with the drawing describe also the process. I am	"Designers are satisfied and happy because they see that their creations are successfully sold, are included in publications" (Marketing director of Luxury-Fashion) "They are external people, free-lance, who work exclusively for Luxury-Fashion. They are very often young guys. They are individuals with a high aesthetic perception, they are careful in noticing details especially in the social environment, they are hard workers, and they are able to exclude fantastically their creative reasoning from any kind of external influence. They are able to create with purity. They are difficult people" (Marketing director of Luxury-Fashion)

					not saying he can produce the bill of work , because it is not necessary, but he can say 'be careful here', 'look at this difficulty'" (Human Resource Manager, Trendy-Fashion) "Over 100 that start only 3 arrive. And so all the others find natural limits. The big names that are still here are always the same" (Human Resource Manager, Trendy-Fashion) "Selection processes takes place either through contacts with schools …or through spontaneous applications, or by means of a search in other firms" (Human Resource Manager, Trendy-Fashion) "Let's say that in a time horizon of 3-4 years, we have 40 that are fixed and 60 rotation" (Human Resource Manager, Trendy-Fashion) "There shouldn't be permanent contracts for creative people. A	

					part from the pillars of the creative department, there should be a turnover. We should not have creative people that stay here 10 years, because he run off of creativity. There are the water carriers and then there is the top. On the top we have to have continuity, but on the water carriers we need refresh refresh refresh" (CEO, Trendy-Fashion).	
Inspirational controls						
- Ideating modes	"Each collection, 780 items, is organized by theme describing the flavour that they must have" (Technical Direction, Best-Fashion) "The themes could be, I don't know, rock, clamour, they are names that remind of a period or that suggest the flavour, and they they are interpreted in the colours" (Technical Direction, Best-Fashion)	"There are a lot of trips everywhere, Tokio, Los Angeles, New York, Paris, Milan, Las Vegas, and a week in St. Tropez' (CEO of Even-Fashion) "The values of Even-Fashion are really important; they are the source of inspiration" (CEO, Even-Fashion)	"For the C&C line there is Francesca, who scouts the historical archive" (Controller, M-Brand, Deep-Fashion) "There is a theme that should guide the collection in its entirety and the creative director provides images, fabrics, for example, this year, China and for the other brand Cowboys, and the creative director selects some images" "What is the theme of the collection that I would like as		"Research takes place through vintage, by means of dresses that can be found in various antique markets, so that you can take some ideas from there for a material, a colour, a pattern or a proportion" (Creative Direction, Trendy-Fashion) "Things that could be interesting for me now are art exhibitions or even more books, which for a moment may activate a process that may recall an idea	"We have also some systems, thanks to internet, of webcam control on the best world points of sales, to understand the current windows, to understand, what they are bringing out" (Product Manager, Luxury-Fashion) "The designer enters in the world of collection and he organizes a search trip, he goes to the vintage shops and to the exhibition and starts to define the emotive dimension of a certain theme,

			inspiration? Theme … with reference to this collection it could be 'openwork' or 'plissé' or themes with concepts, an old fabric of the '30s. It is the starting point that the designer gives and everybody refers to" (Collections Coordinator, J-Brand, Deep-Fashion) "The theme is not there. You build the collection somehow for stories, but they are not so clearly defined. The creative director selects designs that are consistent after they have been developed" (Creative Direction, M-Brand, Deep-Fashion).		that you have in your mind" (Creative Direction, Trendy-Fashion) "It is necessary to create a dynamic and cohesion for an image that is global together with accessories, bags, to have something complete. It could start with an exhibition or a book" (Creative Direction, Trendy-Fashion) "The firm gives creative people moments, moments that are used to do research trips and in some cases this is useful for them to understand what is happening in the world" (Creative Direction, Trendy-Fashion) "The design office is provided with a budget to do some research exploration, a budget that has to be met" (Creative Direction, Trendy-Fashion) "If you get in a company like Trendy-Fashion, a lot of work	simply the '50s, the aggressive silhouettes, or the use of crazy materials, which becomes the pillar of the collection, more fabric than style in terms of visual impact, and then also stylistic content" (Marketing Director, Luxury-Fashion)

					"is already done because there is an incredible archive" (CEO, Trendy-Fashion) "The theme is kind of there. However, you will never hear the chief designer say 'This year I was inspired by India, or this year I like the '60s'. … It will never be like 'we got inspired by Brigitte Bardot'. That would kill us. We start from some images of an artist, who can inspire the idea of volume. This idea is then reinterpreted and used for the cloths. … In the last atelier we had the 3-D, but we got there through a path" (Creative Direction, Trendy-Fashion)	
- Visualising tools	"The fundamental colours are maybe taken from newspapers, magazines as a reference starting point and then on the basis of that they create, draw" (Technical Direction, Best-Fashion)		"And then we have the prototypes, made with either similar fabrics to those we selected or in pieces of the same fabric with different colours to have a general idea of the garment" (Creative Direction, M-Brand, Deep-Fashion)			"Before letting the pencil go, posters are prepared, moods are developed and in this preparation, there is a collection of images, materials, colours, in some cases verbal downward strokes … in the company I used to work, the chief designer used to tell

						rhymes and fairy-tales to make us understand what was required in terms of the spirit of the collection" (Product Manager, Luxury-Fashion)
- Social networks		The interaction with the retail shops is particularly important to understand trends, customers' preferences Organization of social events with personnel, retailers, consumers (e.g. naked parties)	"At the end of the collection, you have to be able to transmit something to write a press release" (Creative Direction, M-Brand, Deep-Fashion)	"They define the collection on the basis of period trends" (Controller, Multi-Fashion)	"Milan is a world in which all the guys working in design departments, overall the youngest that come from the same schools, know each other and know everything about each other. … In Milan there are all in the same place, in the same bar, in the same disco, you find them always there. As regards the high levels, the chief designer participates at social events. .. She is a friend of Miuccia Prada, in other cases there are more formal relationships. They are all friends on facebook, twitter and so on" (Creative Direction, Trendy-Fashion)	"We are all, how can I say, rather embedded in how the other companies are behaving in terms of trends, what they plan to do, what they are doing, and what they are not doing" (Product Manager, Luxury-Fashion)

Table 2
Sources of evidence

Company	Managers interviewed	Length of initial interviews
Deep-Fashion	Italian Commercial Director	1 hour
	Foreign Technical Director	1 hour
	Italian Technical Director	1 hour
	Group Controller	1 hour
	Group Controller (II interview)	4 hours
	Group controller (focus group)	2 hours
Brand J	Collections Coordinator	3 hours
Brand M and Sub Brands	Commercial Director	2 hours
	Brand M Controller	1 hour
	Brand M Controller (II interview)	1 hour
	Creative Direction	1 hour
Brand P	Collections Director	1 hour
Brand A	Product Manager (shoes and bags)	2 hours
	Total	21 hours
	Documents analysed	
	Financial statements	
	Company profile	
	Management control manuals and procedures	
	Segmented income statements	
	Collection briefing	
	Collection calendars	
	Product technical cards	
	Designs	
	Patterns	
	Processes observed	
	Design process	
	Pattern development process	
	Cut process	
	Sewing process	
	Prototype development process	

Company	Managers interviewed	Length of initial interviews
Best-Fashion	Group Controller	2 hours
	Group Controller (II interview)	1 hour
	Technical Director	3 hours
	Total	6 hours
	Documents analysed	
	Financial statements	
	Company profile	
	Product technical cards	
	Collection calendars	
	Designs	
	Patterns	
	Processes observed	
	Design process	
	Pattern development process	
	Cut process	
	Sewing process	
	Prototype development process	

Company	Managers interviewed	Length of initial interviews
Even-Fashion	CEO CEO (presentation) Chief Designer	3 hours 1 hour 3 hours
	Total	7 hours

Company	Managers interviewed	Length of initial interviews
Multi-Fashion	CFO Controller (presentation) Controller	2 hours 2 hours 1 hour
	Total	5 hours

Company	Managers interviewed	Length of initial interviews
Trendy-Fashion	CEO Creative direction Controller Human resource director	2 hours 2 hours 1 hour 1 hour
	Total	6 hours

Company	Managers interviewed	Length of initial interviews
Luxury-Fashion	Marketing Director Product Director Manufacturing Director CFO (Focus group)	2 hours 3 hours 2 hours 2 hours
	Total	9 hours

References

Abernethy, Margaret A., and Peter Brownell. 1997. Management control systems in research and development organizations: the role of accounting, behavior and personnel controls In *Accounting, Organizations & Society*.

Adler, P. S., and B. Boris. 1996. Two types of bureaucracy: coercive and enabling. *Administrative Science Quarterly* 41 (1): 61-90.

Adler, P. S., and C. X. Chen. 2010. Combining creativity and coordination: understanding individual motivation in large-scale collaborative creativity.

Ahrens, T., and C. S. Chapman. 2004. Accounting for Flexibility and Efficiency: A Field Study of Management Control Systems in a Restaurant Chain. *Souplesse et efficience : une étude sur le terrain des systèmes de contrôle de gestion d'une chaîne de restauration.* 21 (2): 271-301.

———. 2007. Management accounting as practice. *Accounting, Organizations & Society* 32 (1/2): 5-31.

Ahrens, Thomas. 1997. Talking accounting: an ethnography of management knowledge in british and german brewers. *Accounting, Organizations & Society* 22 (7): 617-637.

Amabile, T. M. 1983. *The social psychology of creativity*. New York: Springer-Verlag.

———. 1988. A model of creativity and innovation in oranizations. In *Research in organizational behaviour*, ed. L. L. Cummings, 123-167. Greenwich, CT: JAI Press.

———. 1996. *Creativity in context*. Boulder, Colorado: Westview Press.

Amabile, T. M., R. Conti, H. Coon, J. Lazenby, and M. Herron. 1996. Assessing the work environment for creativity. *Academy of Management Journal* 39: 1154-1184.

Amabile, T. M., and N. D. Gryskiewicz. 1989. The creative environment scales: Work environment inventory. *Creativity research journal* 2: 231-253.

Ariely, D., A. Bracha, and S. Meier. 2009. Doing Good or Doing Well? Image Motivation and Monetary Incentives in Behaving Prosocially. *American Economic Review* 99 (1): 544-555.

Arieti, S. 1976. *Creativity: The magic synthesis*. New York: Basic Books.

Bailyn, L. 1988. Autonomy in the industrial R&D lab. In *Managing professionals in innovative organizations. A collection of readings*, ed. R. Katz. Cambridge, MA: Ballinger.

Baldick, C. . 2004. *The concise Oxford dictionary of literary terms*: Oxford University Press.

Bechky, B. A. 2006. Gaffers, Gofers, and Grips: Role-Based Coordination in Temporary Organizations. *Organization Science* 17 (1): 3-21.

Bonacchi, M., and L. Bambagiotti Alberti. 2006. Il controllo dei costi di sviluppo delle collezioni nelle aziende dell'alta moda. *Controllo di gestione* 1: 47-57.

Brown, Shona L., and Kathleen M. Eisenhardt. 1997. The Art of Continuous Change: Linking Complexity Theory and Time-paced Evolution in Relentlessly Shifting Organizations. *Administrative Science Quarterly* 42 (1): 1-34.

Cappetta, Rossella, Paola Cillo, and Anna Ponti. 2006. Convergent designs in fine fashion: An evolutionary model for stylistic innovation. In *Research Policy*.

Carruthers, B. G. 1995. Accounting, ambiguity and the new institutionalism. *Accounting, Organizations & Society* 20 (4): 313-328.

Caves, R. E. 2000. *Creative Industries - Contracts between Art and Commerce*. Cambridge, Massachussets: Harvard University Press.

Chen, C. X., M. G. Williamson, and F. H. Zhou. 2010. Reward system design and group creativity: An experimental investigation.

Chenhall, Robert H. 2003. Management control systems design within its organizational context: findings from contingency-based research and directions for the future. *Accounting, Organizations & Society* 28 (2/3): 127-168.

Cooper, R. G. 1990. Stage-gate systems: a new tool for managing new products. *Business Horizons* 33 (3): 44-54.

Davila, Antonio, George Foster, and Mu Li. 2009. Reasons for management control systems adoption: Insights from product development systems choice by early-stage entrepreneurial companies. *Accounting, Organizations and Society* 34 (3-4): 322-347.

Davila, Tony. 2000. An empirical study on the drivers of management control systems' design in new product development. In *Accounting, Organizations & Society*.

Deci, E. L. 1972. The Effects of Contingent and Noncontingent Rewards and Controls on Intrinsic Motivation. *Organizational Behavior and Human Performance* 8: 217-229.

Deci, Edward L., James P. Connell, and Richard M. Ryan. 1989. Self-Determination in a Work Organization. *Journal of Applied Psychology* 74 (4): 580.

Deci, Edward L., and Richard M. Ryan. 1987. The support of autonomy and the contorl of behavior. *Journal of Personality and Social Psychology* 53: 1024-1037.

Dewett, Todd. 2007. Linking intrinsic motivation, risk taking, and employee creativity in an R&D environment. In *R&D Management*: Blackwell Publishing Limited.

Ditillo, Angelo. 2004. Dealing with uncertainty in knowledge-intensive firms: the role of management control systems as knowledge integration mechanisms. In *Accounting, Organizations & Society*.

Djelic, Marie-Laure, and Antti Ainamo. 1999. The Coevolution of New Organizational Forms in the Fashion Industry: A Historical and Comparative Study of France, Italy, and the United States. In *Organization Science*: INFORMS: Institute for Operations Research.

Drazin, R., M. A. Glynn, and R. K. Kazanjian. 1999. Multilevel theorizing about creativity in organizations: a sensemaking perspective *Academy of Management Review* 24: 286-307.

Drazin, Robert. 1990. Professional and innovation: structural-functional versus radical-structural perspectives. *Journal of Management Studies* 27 (3): 245-263.

Eisenberger, R., and S. Armeli. 1997. Can salient reward increase creative performance without reducing intrinsic creative interest? *Journal of Personality and Social Psychology* 72: 652-663.

Flach, F. 1990. Disorders of the pathways involved in the creative process. *Creativity research journal* 3: 158-165.

Ford, C. M. 1996. A theory of individual creative action in multiple social domains. *Academy of Management Review* 21: 1112-1142.

———. 2002. The futurity of decisions as a facilitator of organizational creativity and change. *Journal of Organizational Change Management* 15 (6): 635-646.

Gagné, M., and E. L. Deci. 2005. Self-determination theory and work motivation. *Journal of Organizational Behavior* 26 (4): 331-362.

George, J. M., and J. Zhou. 2001. When Openness to Experience and Conscientiousness Are Related to Creative Behavior: An International Approach. *Journal of Applied Psychology* 86 (3): 513-524.

Gilson, L. L., J. E. Mathieu, C. E. Shalley, and T. M. Ruddy. 2005. Creativity and standardization: complementary or conflicting drivers of team effectiveness? . *Academy of Management Journal* 48: 521-531.

Glaser, B. G., and A. L. Strauss. 1967. *The Discovery of Grounded Theory; Strategies for Qualitative Research*. Chicago, IL.: Aldine Pub. Co.

Grabner, I. . 2010. The impact of creativity dependency on MCS design contrasting creative and non-creative industries In *European Accounting Association*. Istanbul.

Granlund, M., and J. Taipaleenmäki. 2005. Management control and controllership in new economy firms--a life cycle perspective. *Management Accounting Research* 16 (1): 21-57.

Hackman, J. R., and Greg R. Oldham. 1980. *Work redesign*. Reading, MA: Addison-Wesley.

Hennessey, B. A., and T. M. Amabile. 2010. Creativity. *Annual Review of Psychology* 61 (1): 569-598.

Hidi, S., and J. M. Harackiewicz. 2001. Motivating the academically unmotivated: A critical issue for the 21st century. *Review of Educational Research* 70: 151-179.

Järvelä, S., and H. Salovaara. 2004. The interplay of motivational goals and cognitive strategies in a new pedagogical structure. *European Psychologist* 9: 232-244.

Jeacle and Carter (2012)

Jönsson, S. 1998. Relate management accounting research to managerial work! *Accounting, Organizations & Society* 23 (4): 411-434.

Jönsson, S., and A. Grönlund. 1988. Life with a sub-contractor: New technology and management accounting. *Accounting, Organizations and Society* 13 (5): 513-532.

Jorgensen, B., and M. Messner. 2009. Management Control in New Product Development: The Dynamics of Managing Flexibility and Efficiency. *Journal of Management Accounting Research* 21: 99-124.

Kachelmeier, S. J., B. E. Reichert, and M. G. Williamson. 2008. Measuring and Motivating Quantity, Creativity, or Both. *Journal of Accounting Research* 46 (2): 341-373.

King, N., and N. Anderson. 1990. Innovation in working groups. In *Innovation and creativity at work*, ed. M. A. West and J. L. Farr, 81-100. Chicester, England: Wiley.

Kurtzberg, T. R., and T. M. Amabile. 2000. From Guilford to creative synergy: Opening the black box of team-level creativity. *Creativity research journal* 13 (3-4): 285-294.

Locke, E. A., and G. P. Latham. 1990. Work motivation and satisfaction: Light at the end of the tunnel. *Psychological Science* 1: 240-246.

Mainemelis, Charalampos, and Sarah Ronson. 2006. Ideas are Born in Fields of Play: Towards a Theory of Play and Creativity in Organizational Settings. *Research in Organizational Behavior* 27: 81-131.

Malina, M. A., and F. H. Selto. 2001. Communicating and Controlling Strategy: An Empirical Study of the Effectiveness of the Balanced Scorecard. *Journal of Management Accounting Research* 13: 47-90.

Malmi, T., and D. A. Brown. 2008. Management control systems as a package - Opportunities, challenges and research directions. *Management Accounting Research* 19: 287-300.

Markus, M. L., B. Manville, and C. E. Agres. 2000. What makes a virtual organization work? *MIT Sloan Management Review* 42 (1): 13-26.

Merchant, K. A. 1985. *Control in business organizations*. Boston: Pitman.

Merchant, K. A., and W. A. Van der Stede. 2003. *Management control systems*. Edinburgh Gate: Pearson Education.

Moneta, G. B., T. M. Amabile, E. A. Schatzel, and S. J. Kramer. 2010. Multirater assessment of creative contributions to team projects in organizations. *European Journal of Work & Organizational Psychology* 19 (2): 150-176.

Mumford, Michael D., M. I. Mobley, C. E. Uhlman, R. Reier-Palmon, and L. M. Doares. 1991. Process analytic models of creative capacities. *Creativity research journal* 4: 91-122.

Nelson, R. R., and S. G. Winter. 1982. *An evolutionary theory of economic change*. Cambridge, Mass.: Belknap Press of Harvard University Press.

Oldham, G. R., and A. Cummings. 1996. Employee creativity: personal and contextual factors at work. *Academy of Management Journal* 39: 607-634.

Ouchi, W. G. . 1979. A conceptual framework for the design of organizational control mechanisms. *Management Science* September: 833-848.

Parsons, J. L., and J. R. Campbell. 2004. Digital Apparel Design Process: Placing a New Technology Into a Framework for the Creative Design Process. *Clothing and Textiles Research Journal* 22 (1/2): 88-98.

Paulus, P. B., and B. A. Nijstad, eds. 2003. *Group creativity. Innovation through collaboration*. New York: Oxford University Press.

Pirola-Merlo, Andrew, and Leon Mann. 2004. The relationship between individual creativity and team creativity: aggregating across people and time. In *Journal of Organizational Behavior*: John Wiley & Sons, Inc. / Business.

Prahalad, C. K., and R. A. Mashelkar. 2010. Innovation's Holy Grail. *Harvard Business Review* 88 (7/8): 132-141.

Raisch, Sebastian, Julian Birkinshaw, Gilbert Probst, and Michael L. Tushman. 2009. Organizational Ambidexterity: Balancing Exploitation and Exploration for Sustained Performance. *Organization Science* 20 (4): 685-695.

Ratelle, C. F., F. Guay, R. J. Vallerand, S. Larose, and C. Senecal. 2007. Autonomous, Controlled, and Amotivated Types of Academic Motivation: A Person-Oriented Analysis. *Journal of Educational Psychology* 99 (4): 734-746.

Richardson, James. 1996. Vertical Integration and Rapid Response in Fashion Apparel. *Organization Science* 7 (4): 400-412.

Roberts, J. A., I. H. Hann, and S. A. Slaughter. 2006. Understanding the motivations, participation, and performance of open source software developers. *Management Science* 52: 984-999.

Runco, M. A. 2004. Creativity. *Annual Review of Psychology* 55 (1): 657-687.

Sansone, C., and D. B. Thoman. 2005. Interest and the missing motivator in self-regulation. *European Psychologist* 10: 175-186.

Saviolo, S., and S. Testa. 2002. *Strategic Management in the Fashion Companies*. Milano: Etas Libri.

Schumpeter, J. A. 1947. The Creative Response in Economic History. *The Journal of Economic History* 7: 149-159.

Shalley, Christina E., and Lucy L. Gilson. 2004. What leaders need to know: A review of social and contextual factors that can foster or hinder creativity. *The Leadership Quarterly* 15 (1): 33-53.

Simons, R. 1994. How new top managers use control systems as levers of control. *Strategic Management Journal* 15 (3): 169-189.

Smith, K. L. R., W. B. Michael, and D. Hocevar. 1990. Performance on creativity measures with examintation-taking instructions intended to induce high or low levels of test anxiety. *Creativity research journal* 3: 265-280.

Sprinkle, G. B. 2008. Discussion of Measuring and Motivating Quantity, Creativity, or Both. *Journal of Accounting Research* 46 (2): 375-382.

Statistics, U.S. Bureau of Labor. 2008. Fashion Designers. In *Occupational Outlook Handbook, 2008-2009 Edition*.

Thompson, J. D. . 1967. *Organization in action*. New York: McGraw-Hill.

Toubia, O. 2006. Idea Generation, Creativity, and Incentives. *Marketing Science* 25 (5): 411-425.

Tschang, F. Ted. 2007. Balancing the Tensions Between Rationalization and Creativity in the Video Games Industry. *Organization Science* 18 (6): 989-1005.

Tushman, M. L., and C. A. O'Reilly III. 1996. Ambidextrous Organizations: MANAGING EVOLUTIONARY AND REVOLUTIONARY CHANGE. *California Management Review* 38 (4): 8-30.

Uzzi, Brian. 1997. Social Structure and Competition in Interfirm Networks: The Paradox of Embeddedness. *Administrative Science Quarterly* 42: 35-67.

Verganti, G. 2009. *Design-driven innovation* Boston: Harvard Business School Publishing Corporation.

Weibel, A., K. Rost, and M. Osterloh. 2007. *Crowding-out of intrinsic motivation - opening the black box*: University of Zurich. Mimeo.

Weisberg, R. W. 1999. Creativity and knowledge: A challenge to theories. In *Handbook of creativity*, ed. R. J. Sternberg, 225-250. New York: University Press.

Witt, L. A., and M. Beorkrem. 1989. Climate for creative productivity as a prdictor of research usefulness in an R&D organization. *Creativity research journal* 2: 30-40.

Woodman, Richard W., John E. Sawyer, and Ricky W. Griffin. 1993. Toward a theory of organizational creativity. In *Academy of Management Review*: Academy of Management.

Wouters, M., and C. Wilderom. 2008. Developing performance-measurement systems as enabling formalization: A longitudinal field study of a logistics department. *Accounting, Organizations and Society* 33 (4-5): 488-516.

Wynder, Monte. 2007. The Interaction Between Domain-Relevant Knowledge and Control System Design on Creativity. *Australian Journal of Management* 32 (1): 135-152.

Yin, R. K. . 2003. *Case Study Research - Design and Methods*. Edited by L. Bickam and D. J. Rog. Third Edition ed. Vol. 5, *Applied Social Research Methods*. Thousand Oaks, CA: Sage Publications, Inc.

Zhou, J. 1998. Feedback valence, feedback style, task autonomy, and achievement orientation: Interactive effects of creative performance. *Journal of Applied Psychology* 83: 261-276.