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From Executives to Vulnerable Employees: Essays on Human Capital and its link with Organizational Structure, Objectives and Performances

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EXTENDED ABSTRACT

This dissertation looks primarily at human capital, in particular, executives (Top Management Team, after TMT) and their influence on the firm's success through their roles. Companies need to leverage on executives' potential to succeed, and one way is through their roles (i.e., the set of tasks and responsibilities). First, I investigate how companies' roles allow executives to express all their potential, contributing to firm success. Second, I explore if and how executives impact firm performance through the dimension, they are leading (i.e., their roles). These two ideas are investigated, respectively, in the first and second chapters.

To deal with these questions, I exploit a creative setting, the fashion industry. Creative organizations are closely anchored to human capital. They need to capture the individual creative input in order to generate economic value. The core business of these firms is to innovate rapidly, and executives are fundamental to manage and integrate each component of the creative process: from novelty generation (e.g., the Creative Director), to sales (e.g., the Head of Retail), and resource management (e.g., the CFO).

In particular, the first chapter investigates whether role separation between creative and business functions at the top of organizations enhances the company's creative conversion ability. Creative organizations' success highly depends on the ability to generate ideas that are converted into products recognized as creative and novel, i.e., their creative conversion ability. We found evidence that role separation increases creative conversion ability, and we also tested the mechanism of why this happens. With a CEO, the creative director can focus on creativity, and this enhances the chances to generate something extremely novel to be converted into a creative product. We also test a contingency of the model: effective collaboration. We found that role separation is more effective when the two collaborate.

The second paper broadens the spectrum of executives by investigating functional TMT members in relation to firm performance. My claim is that, to shed light on firm

success, it is vital to study each simultaneous TMT member's effect on multiple firms' performance dimensions. Past studies considered TMT as a unified team. However, executives usually stick to their roles, influencing the associated objectives. Consequently, they affect the related dimension of performance. Preliminary results show that TMT members in charge of output functions (related to market and product) exert more influence on product-related performance, while executives leading throughput functions (linked to efficiency and administration) affect mainly financial-related performance.

The last paper, instead, changes the perspective from executives to vulnerable employees. Besides role and other organizational dynamics, executives, like every employee, are human beings. Given that vulnerability is an ontological condition, everyone can face vulnerability, and, ultimately, it affects their jobs. From a conceptual review, vulnerability is "the state and the feeling of individuals being fragile and under attacks, with the possibility of being physically or emotionally wounded by that." Acknowledging that we live in a world where there is growing uncertainty about the future, increasing the state of individual vulnerability to unforeseeable adverse events, this variable becomes central to firms' activities. People feeling vulnerable may experience negative emotions, a sense of weakness, and find difficulties in building relationships. That turns out to negatively impacting the firm's performance and activities. This paper proposal provides an initial effort to highlight how institutionalizing vulnerability can be a way to "humanize" firms, but also to transform the negative side of vulnerability into positive. We investigate this idea in an Italian company, whose business model's basis is vulnerability.

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FROM IDEAS TO CREATIVE PRODUCTS: HOW ROLE SEPARATION INCREASES CREATIVE CONVERSION ABILITY

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Abstract. Drawing from the literature on creative organizations and the "blind-variation and selective-retention" model, we tested whether role separation between creative and business functions at the top of organizations enhances the company's creative conversion ability. Creative conversion ability is the ability to convert novel ideas and creations into final products deemed as creative and new-to-the-world, ensuring creative organizations' artistic innovativeness essential for achieving a competitive advantage. In the setting of high-end fashion houses, we found that when the creative director was distinct from the CEO, creative conversion ability was significantly higher. We theorized and tested the mechanism of why role separation leads to that result. Creative director, with the help of the CEO, can focus and dedicate all time and resources to creativity, thus increasing the chance to generate ideas potentially novel, transformed, then, into successful creative products. However, role separation is challenging when the two executives do not effectively collaborate. In this respect, we find that sharing years of experience in the company enhances their collaboration. Our findings suggest that role separation can be extremely beneficial for the creative director's ability to generate novelty, ultimately benefiting creative organizations.

Keywords: creative industries, creative conversion ability, role separation, fashion, collaboration

INTRODUCTION

Creative organizations' business rests on the continuous generation of novelty. Creativity is their essential asset, which generally belongs to gifted individuals. Creative organizations are, indeed, able to transform those gifted individuals' creative input into business outcomes (Jones & Maoret, 2018). However, if one the one hand, to survive and prosper, creative organizations have to always generate novelty, on the other hand, that novelty translates into products sold in the market (Townley, Beech, & McKinlay, 2009). Competing in the market requires that, if these organizations create a novel product, it has to be recognized as different in terms of creativity from those produced by other creative organizations (Thompson, Jones, & Warhurst, 2007).

Given the difficulty in assessing creativity, this recognition is generally in the hands of experts in the field and critics (Bhansing, Leenders, & Wijnberg, 2012; Kacperczyk & Younkin, 2017). The latter are generally interested in the search for breakthrough novelty, and they possess the knowledge to assess creativity. Often, in creative settings, receiving recognition for creativity by experts and interested audiences is essential in order to be successful in the market (Wijnberg & Gemser, 2000). Their opinion is considered as a proxy of the quality of the products, and receiving a favorable opinion may increase the chances of success. This is true for critics in performing arts, as well as in movies or the fashion industries. Therefore, creative organizations, as all those organizations that want to breakthrough in the market, need to produce something novel deemed to be creative by the final audience (Godart, Maddux, Shipilov, & Galinsky, 2012).

We called creative conversion ability, the ability of the company to convert novel ideas and creations into final products deemed as creative and new-to-the-world. This ability ensures the so-called creative organizations' artistic innovativeness essential for achieving a competitive advantage (Bhansing et al., 2012). Given the number of creative creations of each firm, organizations differ in their ability to translate creations in superior creative products successfully. Therefore, how can creative organizations enhance their creative conversion ability? How do they sustain their artistic innovativeness and novelty generation to compete in the market?

We posit that role separation between top executives leading creative and business function is one strategy that creative organizations can adopt to increase their ability to regularly generate products recognized as novel. Past scholars advocate the importance of role separation, especially in creative settings, where the ultimate responsible for creativity – generally called the creative director – should be separated from the business director – generally, the CEO (Alvarez, Mazza, Pedersen, & Svejenova, 2005; Baker & Faulkner, 1991). However, even if scholars recognized superior performance in case of role separation, there are papers clearly explaining that creative directors can also be able to consolidate the role of the CEO in their hands (Alvarez et al., 2005). What is missing is the reason why a creative organization can benefit from role separation and which dependent variable it affects.

To this extent, we theorized and tested the mechanism of why role separation enhances creative conversion ability through the creative director increase in focus on creativity. Role separation entails that a creative director, free from managerial and business requirements, can fully dedicate to novelty generation. Drawing from creativity theories and the "blind-variation and selective-retention" model proposed by Campbell (1960), the increased focus of the creative director on creativity is essential to boost products' novelty. First, because creativity requires time and cognitive resources available to creative directors once relieved from other unrelated business activities (Shalley, Zhou, & Oldham, 2004). Second, from the "blind-variation and selective-retention" model, if creative directors increase their focus on creativity, they can dedicate all the time and efforts to generating novel ideas and creations (Simonton, 1999). The model suggests that the more new ideas generated, the more chance to find that idea that is successfully novel and, then, produced and sold to the market by creative organizations (Simonton, 1997).

We also acknowledged, however, that while role separation looks ideal in creative settings, having two executives at the top can be extremely challenging and, ultimately, detrimental to the firm (Eikhof & Haunschild, 2007). Creative and economic objectives may drive creative directors and CEOs apart (Reid & Karambayya, 2009). This is why we theorized and tested that role separation is positively influencing creative conversion ability, through the creative director's focus on creativity, if the two executives effectively collaborate. Creative directors can really focus on creativity once a trustable partner is taking care about the financing activities. Plus, CEOs are relevant because both cognitive and material resources are pivotal for creativity (Shalley & Gilson, 2004). CEOs can pursue the financing activities and business strategies to ensure financial meanings to always invest in novelty generation.

We tested our research question in the setting of high-end fashion companies, where the novelty of the products is of paramount importance for the firm to survive (Crane & Bovone, 2006). In fashion, cases of successful role separation abound, for example, with Yves Saint Laurent and Pierre Bergé at French fashion house Yves Saint Laurent, or Miuccia Prada and Patrizio Bertelli at Italian fashion house Prada. However, while these houses show that separating the creative director and CEO roles is the best strategy, examples such as Armani suggest the converse can also be true. Giorgio Armani has successfully led the company as both creative director and CEO for more than 40 years. We exploit, therefore, a unique panel dataset of companies, which presented their collections in biannual fashion shows from 2009 to 2016.

Results confirm the importance of separating executives' roles between creative and business functions. Organizations, with a CEO apart from the creative director, show a significantly higher level of creative conversion ability. We also found a partial mediation of the creative director's focus on creativity that supports our mechanism. If we take as a starting point that creative directors' main responsibility is igniting creativity inside the company (Tierney, Farmer, & Graen, 1999), with role separation, they have resources to dedicate only to that objective. They may use their time, cognitive abilities, and freedom to generate novel ideas and to increase the chance to produce something extraordinary novel (Oldham & Cummings, 1996). Creative director's focus on creativity is pivotal to exploring new patterns and combinatorial opportunities, breeding grounds for creativity (Shalley et al., 2004).

We also found the importance of the two executives to share years of experience in leading the company together. Considering the tenure of the two executives in the company as a proxy for effective collaboration (Carpenter, 2002), the highest level of collaboration among the two, the more they can solve conflicts. And, conflicts, are one of the major problems in cases of two powerful individuals at the top (Arnone & Stumpf, 2010; Overdiek, 2016; Reid & Karambayya, 2009).

We see our contributions as follows: First, we address one of the concerns of the literature on creativity and creative organizations. As underlined by some scholars, often, the research looks selectively either to idea generation or what is recognized as the implementation of such idea (Perry-Smith & Mannucci, 2017). Moreover, it is tough to assess creativity and innovation separately (Cattani & Ferriani, 2008), and often the process of moving from ideas to implemented ideas – e.g., creative products for creative organizations – is overlooked (Thompson et al., 2007). If innovation is the implementation of creative ideas, creative contexts' implementation stems from the final product given by the act of invention of the creative directors (Godart et al., 2012). We address the quest to carefully investigate variables that affect the idea journey and its transformation into novel products. As a matter of fact, through our analysis, we explore how creative directors' ideas are successfully transformed into products thanks to the role separation that increases their focus on creativity. That is one mechanism explaining the conversion of creative directors' ideas into products successfully recognized as novel and creative.

Moreover, we add to the literature on the importance of roles—and more specifically, configurations of roles at the top—for creative conversion ability. Past research has been especially interested in the role played by the informal network structure as one of the main determinants of creativity (e.g., Burt, 2004), but we show that it is also important for creative organizations to have a clear separation of roles between creative and CEO functions. Baker and Faulkner (1991) found that artistic and production role separation was well suited to Hollywood blockbuster-era economic objectives. However, we add to this by assessing the role-separation effect and mechanism on a different variable, creative conversion ability, which is vital to guaranteeing firm survival in creative settings, and more generally, in innovative settings. Also, the Hollywood industry is characterized by short-term projects, and role configurations can be strategically negotiated with each new movie. Our paper generalizes Baker and Faulkner's (1991) results by assessing whether companies benefit from role separation in an industry (i.e., fashion) that imposes its structure for a more extended period, and thus, whether role separation or not can influence long-term results.

Furthermore, we add to research on the tension between creative and economic objectives. Our research addresses that crucial issue by examining when conflicts between the executives may hamper the role separation's benefits. Besides the findings of the positive effects of role separation, there are problems concerned with two top leaders in a company (Alvarez & Svejenova, 2005). We advance the idea that role separation is useful, but requires collaboration between the two executives. This opens up a new research agenda for complex organizations that face multiple logics and conflicts within their day-to-day business (Denis, Langley, & Pineault, 2000). Executive couples, like creative ones, are pivotal to success (Shenk, 2004). However, they have to collaborate effectively.

THEORY

Creative Organizations and Creative Conversion Ability

Creative organizations are companies whose activities "have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property, namely: advertising, architecture, art and antiques, crafts, design, designer fashion, film, interactive leisure software, music, performing arts, publishing, software design, TV and radio" (Townley et al., 2009: 939). Creative organizations' core business is to continually strive for new ideas that enable the constant generation of novelty, fundamental to gain and sustain their competitive advantage. The starting point of creating novelty lies in the creativity of gifted individuals that steadily generate new ideas, the main assets encompassing intellectual work and value (Thompson et al., 2007). These organizations, therefore, build their activities on their creations, considered as something that generally carries some meanings, some symbolic, and intellectual value (Eikhof & Haunschild, 2007). For some organizations, in particular, the novelty is linked to the production of new-to-the-world art and breakthrough ideas (Hirschman, 1983). However, even if before being companies, creative organizations are valued for the meanings and the intellectual or artistic value they generate, they have to deal with the market. Their "organizational" nature entails that their creations become products sold in the market (Thompson et al., 2007).

Competing in the market has several implications for these organizations. First of all, creations become products with not only artistic value but also material and economic value (Townley et al., 2009). This means that separating creativity from products is difficult because what matters is whether the company successfully converts novel ideas into creative products. Moreover, the novelty generated has to be different from one of the competitors. In order to meet the criteria of generating new-to-the-world pieces, these organizations have to create something distinct and differentiated from other creative organizations to attain recognition for their creations (Alvarez et al., 2005).

In order to survive and prosper, therefore, creative organizations have to conceive new creative products regularly. These products should be recognized as novel and differentiated in terms of creativity. This "recognition" of creativity is pivotal for creative organizations (Godart et al., 2012). Products released are considered novel and creative "to the extent that appropriate observers independently agree it is creative" (Amabile, 1996: 33). Actually, given that creativity is highly uncertain and unpredictable, this setting requires an evaluation system fundamental to recognize and assigns the creativity value to the product (Wijnberg & Gemser, 2000). According to Wijnberg and Gemser (2000), establishing the value of creative products[1] is the only way to ensure the significance of that product, managing to obtain crucial resources from it. For creative organization, therefore, it is essential to establish the value of their creations, and they need someone that evaluates them (Bhansing et al., 2012). Of significant relevance and importance, there are the so-called "experts," generally critics and professional experts in the field. The field encompasses "those organizations that, in the aggregate, constitute a recognized area of institutional life: key suppliers, resource and product consumers, regulatory agencies, and other organizations that produce similar services and products" (Alvarez et al., 2005: 865). This expert audience (also known as critics in setting like filmmaking) is more objective than peers and market, and especially interested in finding artistic innovativeness, something such creative that breaks the usual standards

[1] In their paper, Wijnberg and Gemser (2000) theorized about cultural products. However, we know that the “cultural” and “creative” industry, they are two terms often used interchangeably, as highlighted by Thompson and colleagues (2007). Creative and cultural organizations based their activities on the generation of intellectual property, and they both have to deal with the market. For simplicity and in line with past research, we use in this paper the term creative organizations encompassing also cultural organizations as in the research of Thompson and colleagues (2007).

(Wijnberg & Gemser, 2000). In their study of Impressionism, Wijnberg and Gemser (2000) found that experts are more objective because peers generally discount the new-to-the-world products of other creative individuals because of their personal involvement is what they already proposed to the field. They found difficulties in challenging the status quo. Moreover, past research recognized such relevance in external critics that sometimes they become even more important than the person who creates the novelty (e.g., Sandler, 1996). They are the ones in charge of assessing the ability of the organization to generate breakthrough products and their so-called creative newness. For example, filmmaking companies survive thanks to the production of novel scripts that are turned into successful movies appreciated by a final audience (Alvarez et al., 2005; Baker & Faulkner, 1991). Essential is how the final audience evaluates the piece of novelty (Godart et al., 2012).

Therefore, the pivotal ability of creative organizations to survive and prosper is the so-called creative conversion ability, meaning the ability to convert creations into successful creative products evaluated as novel and new-to-the-world by experts and critics.

Creative conversion ability is vital, not only as described before for creativity recognition, but it impacts the overall companies' success. First of all, when an expert audience evaluates the new product as "creative," it recognizes the high quality of it (Bhansing et al., 2012). According to Bhansing and colleagues (2012), positive expert evaluation is a signal of that organization's success because it enhances the media coverage, the recognition and reputation of the firm. It also increases the chances of organizations to attract the necessary resources to survive. Furthermore, we know that novel ideas and products increase the chance of having economic returns of that novelty (Audia & Goncalo, 2007). Actually, "the creativity literature makes it clear that not every truly novel idea will become valuable [… but] that novelty will increase the probability that economic value can be obtained, all else equal" (Kaplan & Vakili, 2015: 1439). Lastly, since the competitive advantage of these organizations is based on the novelty generation, the recognition of the ability of those organizations to convert creations into creative products is an essential requirement for continuing the business successfully (Godart et al., 2015). However, given the unpredictable and uncertainty due to the generation of creativity that is generally spontaneous and out of control (DeFillippi, Grabher, & Jones, 2007), creative organizations have to find ways in which they increase at maximum the chance to convert creations into acknowledged creative products.

Executives Role Separation and Creative Director Focus

The starting points for any creation are novel ideas, essential seeds to create products successfully appreciated as novel and creative by audiences. For creative organizations to be successful, they have to boost individual creativity (Tierney et al., 1999). The latter generally stems from the work and abilities of creative directors, who are those gifted individuals responsible for the generation of creative products (Alvarez et al., 2005).

Creative organizations use several strategies to maintain the ability to create novelty as well as the ability to provide something new-to-the-world and different from competitors. One of them is consolidating the creative process and the whole company's activities in the hand of the creative director, who also covers the CEO role and controls all the business and commercial strategies, as well as the creativity (Alvarez et al., 2005). Alternatively, research also suggested the importance of separating roles between creative director and CEO, benefiting from someone expert and capable of dealing with the market (e.g., Overdiek, 2016). The creative director is in charge of the artistic and creative side of the firm, while the CEO is responsible for ensuring the financial stability of the company (Clement et al., 2018).

Defining organizational roles as positions within organizations that carry a defined number of tasks and responsibilities (Ebbers & Wijnberg, 2017; House & Rizzo, 1972), scholars have speculated that creative organizations are more successful when separating creative and business roles (Baker & Faulkner, 1991). Conceptualizing a role as a resource for power and influence, Baker and Faulkner (1991), in particular, showed that, in the Hollywood filmmaking industry, separating the artistic and commercial role was financially better than combining them in the hand of the same person. However, they did not address creative conversion ability (our focus). Other research into the importance of separating executives' roles in creative industries has been based on case studies or qualitative investigations. Unfortunately, it does not provide a clear and generalizable answer to the question of whether or not this role separation is beneficial to creative organizations and how it truly affects them (Karra, 2008; Overdiek, 2016). Clement et al. (2018) empirically explored the importance of role separation for creative projects (French TV shows). Still, they investigated formal roles as a contingency to better explain the role of brokers in informal networks.

Even if past research is often inconclusive and results are mixed on the significance of role separation for creative organizations, scholars argue that creative directors generally care more about creativity rather than economic performance (e.g., Bhansing et al., 2012). With a CEO, the creative director can dedicate all the time and efforts to focus on his main goal and interest, i.e., creativity (Alvarez et al., 2005; Karra, 2008). Actually, if the creative role is separated from the business side, creative directors are freer to pursue creativity by exploring novel ideas because they have the time, resources, and freedom (Alvarez et al., 2005; Dobrev & Barnett, 2005). In a study on film directors in Europe, Alvarez et al. (2005) argued that Pedro Almodovar was free to focus on all the creative aspects of his movies because his brother administered all the business activities. Indeed, creative directors helped by the CEOs can dedicate full attention exclusively to creativity, and this can boost creative specialization, meaning enhancing the creative director's expertise. This specialization on creativity is linked to the growth of relevant creative skills, increasing the chance of novelty generation (Arnone & Stumpf, 2010; Baker & Faulkner, 1991). Moreover, it is generally accepted that individuals are characterized by bounded rationality (Simon, 1955). Given the limited attention and the high amount of information that creative directors daily receive, we can expect that creative directors with the help of CEOs can certainly dedicate attention to their goal and what is assumed to be their preferences, i.e., creativity (Cho & Hambrick, 2006). With role separation at the top, it is possible for creative directors to focus on what they enjoy and to pay attention to all the innovative details of an idea. It is also important to highlight that creative directors may lack the skills and competencies required to administer the business, ending up without the necessary financial resources that the CEO should be more knowledgeable in finding and ensuring. Without resources, creativity may be several hampered because we know that to explore novel ideas and combinations, also material resources are essential (Shalley & Gilson, 2004).

Role Separation, Creative Director's Focus on Creativity, and Creative Conversion Ability

Acknowledging that separating the roles at the top into creative and business functions allows the creative director to focus on creativity, we posit that this mechanism is driving the creative conversion ability of creative organizations. Drawing on past research on creativity and the "blind-variation and selective-retention" model (Campbell, 1960), we argue that role separation increases the creative directors' focus on creativity, essential to boost creative conversion ability. Figure 1 shows the full model of the paper.

Insert Figure 1 about here

First, if creative directors focus exclusively on creativity, this meets the quest for autonomy and flexibility required in creative organizations to create superior novel products (Shalley, Gilson, & Blum, 2009). Past creativity literature suggests as a successful critical variable that creative directors are self-managers of their activities, so to be free to generate out-of-the-box thinking and new-to-the-word products. This is generally pivotal to counterbalance the stability and standardization of companies and business requirements (Thompson et al., 2007). Besides, given that creative directors can focus more on creativity through the autonomy and flexibility acquired by the presence of a CEO, they have more time and freedom to engage in exploratory learning (Shipton, West, Patterson, Birdi, & Dawson, 2006). This freedom to search for novel perspectives and novel combinatorial opportunities enables creative directors to take more risks, explore new opportunities, and work longer to create innovative products (Amabile, Goldfarb, & Brackfield, 1990; Oldham & Cummings, 1996). This experimentation and search for alternatives are concretely turned into more creative ideas by the creative directors, and we know from past research that job variety in creations enhances organizational creativity (Oldham & Cummings, 1996). This is because the variety makes people more excited about their job and more motivated to continue producing novel things (Shalley et al., 2004). For example, if another executive is focusing on the financial aspects of the fashion house, the creative director can experiment, recombine, and create different garments and follow multiple projects by mixing different cuts, patterns, colors, fabrics, and lengths (Cappetta, Cillo, & Ponti, 2006; Cillo, De Luca, & Troilo, 2010). This kind of experimentation has been shown to be associated with higher creativity (Choi, Anderson, & Veillette, 2009).

Furthermore, as said before, this focus on creativity turns into the possibility of channeling all the cognitive resources, time, and effort in the generation of novel creations. "Blind-variation and selective-retention" model suggests with Darwinian parallelism that individual minds are responsible for the generation of novel ideas, the so-called variation (Simonton, 1999). Variation is blind because it is impossible to foresee the production of variation, which means that it is impossible to conduct variation on purpose and deliberately. Generally, a small sample of individuals in the population has the potential to create something novel and creative. Creativity is linked to the fact that among those variations - all those creative ideas generated - there is a chance to selectively retain only those of high quality or successful (Simonton, 1999). "The creative intellect spontaneously constructs ideational combinations in a more or less unpredictable manner; a small proportion of these combinations is then selected for further elaboration and retention" (Simonton, 1997: 67). This means that thinking about creative directors, the more they focus on creativity, the more they can spontaneously generate variations, based on new combinatorial opportunity and novel ideas, seeds for successful creative products. Among those novel ideas, the creative director may decide which one to elaborate further and present to the market so that creations become effective products. Of course, this focus on creating variation increases the chance to select and show to the market those creations that are novel and come from breakthrough ideas. This increase the creative conversion ability, because the more ideas generated by creative director, the more the likelihood that at least one is exceptionally novel and successful. Therefore converted into a creative product appreciated by audiences.

Given the arguments provided above, role separation in creative organizations allows creative directors to maintain a clear focus on creativity. This focus will guarantee autonomy and flexibility, as well as enough cognitive and other personal resources to increase the possible novel ideas and foster the creativity for each product released, thus turning into higher creative conversion ability. Therefore, we argue that:

Hypothesis 1. Creative organizations with role separation at the top between creative and business functions achieve higher creative conversion ability than organizations without such separation.

Hypothesis 2. The Creative Director's focus on creativity mediates the relationship between role separation and conversion ability in organizations.

A contingency to role separation: the moderated role of effective collaboration between creative director and CEO

Creative organizations having the creative director separated from the CEO find some challenges in balancing the distinct logics of these two executives. If, on the one hand, the creative director is free to focus on creativity, on the other hand, there is a CEO striving for more business logic (Eikhof & Haunschild, 2007). This duality of logics leads to a fundamental dilemma for creative organizations because these simultaneous creative and economic objectives can generate some conflicts (Ebbers & Wijnberg, 2017; Reid & Karambayya, 2009). Unfortunately, these objectives may work against each other, as in the publishing industry, which shows an inner conflict between the editorial logic of finding novel stories and the managerial and business logic of selling enough books to meet budgets and to ensure sustainability (Fjellvär, 2010; Thornton & Ocasio, 1999). In the filmmaking industry, creative directors' role is to produce always new movies while the CEO cares especially for box office revenues (Alvarez et al., 2005; Baker & Faulkner, 1991). In the fashion industry, instead, the CEO's ultimate goal is to be able to extract the maximum monetary value from the production of ever new sets of garments and accessories (Cillo & Verona, 2008).

In their study, Eikhof & Haunschild (2007) highlighted one of the principal issues of having two conflicting goals: the CEO's economic logics can jeopardize the creativity of creative organizations. The commoditization of creative work can deprive creations of all their symbolic and artistic value (Townley et al., 2009). Without novelty and creative ideas, these companies lose all the core assets to gain their competitive advantage. At the same time, even if the creative component is the fundamental cornerstone of creative organization, still the CEO can help to raise enough money to survive and prosper by knowing how to successfully compete in the market with commercial and managerial strategies (Alvarez et al., 2005).

In the case of role separation, therefore, past research suggests that one way to overcome this conflicting situation is the effective collaboration between creative director and CEO (e.g., Overdiek, 2016). Effective collaboration of the two executives, instead of exacerbating the conflicting logics and goals, help both of them to complement each other in order to be successful. Creative and business directors who effectively collaborate have more chance to pursue their business objectives because they try to know each other, to integrate their thinking, which is fundamental to solving conflicts (Arnone & Stumpf, 2010; Reid & Karambayya, 2009). Role separation is effective in the case where actual collaboration is present, producing synergies and complementarities between the two top managers (Karra, 2008; Overdiek, 2016).

Moreover, we know form creativity literature that a good and supportive relationship between co-workers, in this case, creative director and CEO, is fundamental to exhibit a higher level of creativity (Zhou & George, 2001). The creative director can focus on creativity, only knowing that a trustable and supportive partner is taking care of the business. Supporting and encouraging partners can lead the creative director to show much more creativity. This is because support enhances the creative director's excitement and motivation to continually work on novelty generation (Shalley et al., 2004). The creative director, effectively collaborating with the CEO, can focus on the creativity and boost his ability to produce creations, turning out as novel.

Furthermore, Carpenter (2002) showed that collaboration, approximated by years spent together in the company, is recognized as a socialization mechanism between two executives. When two heads share similar tenure in their company, they can collaborate by managing to abolish the manifestation of salient differences and by developing common strategic thinking that helps them pursue the best outcomes for the organization (Daboub, Rasheed, Priem, & Gray, 1995).

Therefore, when the creative director effectively collaborates with the CEO, this allows the creative director to focus more on creativity, knowing that a trustable person is taking care of all the managerial and commercial activities. This will, in turn, increase the positive effect of the creative director's focus on creativity on the creative conversion ability. It follows that:

Hypothesis 3. Effective Collaboration between creative director and CEO positively moderate the relationship between role separation and creative director's focus on creativity, thus increasing creative conversion ability for creative organizations.

EMPIRICAL SETTING

The fashion industry is a prototypical creative industry in which every product is based on an act of invention, most commonly referred to as "a creation" (Davis, 1994; Godart & Mears, 2009). The heart of this industry lies in the creation of at least two new collections per year, each encompassing a completely new set of garments and accessories (Cillo et al., 2010). Therefore, creativity is a necessary ingredient for the company to arrive at new combinations of elements and to generate new ideas such that the clothes entail real novelty (Crane & Bovone, 2006). In this setting, the gifted individual, known as the creative director (also called the head of design, head designer, or chief creative officer), helms all the artistic side of the business. Collections carry his name, and new creations' positive evaluations tend to be attributed to his creative genius (Godart et al., 2013). The success or failure of even one collection has an extreme influence on a company's overall business, highlighting the strong contribution this individual makes to the company's results (Cillo & Verona, 2008).

Fashion companies, therefore, rest on the ability of their creative director always to generate novel creations that turned into successful products. In this regard, it is essential the impact of experts and critics on the evaluation of the creativity of each collection. “Creative directors are personally evaluated by fashion buyers and journalists based on what they are able to produce for their fashion shows in a context of high interpersonal competition among creative directors of different houses” (Godart et al., 2015: 201-202). Buyers in their role as gatekeepers, generally evaluate the collections. Their recognition of the collection is fundamental to select and retain those products deemed as creative and new to the industry (Seong & Godart, 2018). There are also journalists that provide their reviews of collections; however, as suggested by Seong and Godart (2018), their influence over the market is limited. Industrial buyers’ evaluation, therefore, is essential for these organizations and also connected mainly to the companies’ success of the collections (Godart, Shipilov, & Claes, 2014). The ultimate objective for fashion companies turns out to be the ability to convert creations of creative director in some products evaluated as creative by such a pool of experts.

Moreover, inside this industry, the role of the CEO can be filled in one of two ways: Some brands have a division of the creative and business roles (e.g., Gucci, Balenciaga, Prada, etc.), and other brands have a creative director who is also the CEO (e.g., Armani, House of Holland, etc.). Scholars and practitioners investigated role separation in fashion companies. Especially recently, when renowned British fashion house Burberry move back to a role separation model, after a few years, when Christopher Bailey, the head designer, was both CEO and creative director of the company. In summer 2016, after a declining success of Bailey’s collections, Burberry appointed a CEO, named Marco Gobetti, juxtaposing the creative director. However, whether there is role separation or not, all these organizations deal with the struggle to be able to provide to the market something novel and new-to-the-world.

DATA AND METHODS

Data

In order to operationalize our constructs, we built a panel dataset based on the two main collections that global high-end fashion companies (also called brands, or fashion houses) created from 2009 to 2016 (included). This is because collections are presented during fashion shows in precise periods of the year (dedicated semesters). Fashion shows are the cornerstone of the work of houses and their creative directors, especially in the case of women's ready-to-wear (WRTW), the main segment of the fashion industry (Godart et al., 2013). During runways, fashion houses show to the public the main garments and accessories that will subsequently be sold in retail stores. Focusing on WRTW, the two main collections presented in shows are the fall/winter collection presented in the first half of the year (generally after winter sales), to be sold in stores in the second half of the year, and the spring/summer collection presented in the second half of the year, to be sold at the beginning of the subsequent year. We explicitly focus on fall/winter and spring/summer WRTW, without including pre-collections, benefiting from the clear temporal order previously highlighted. Moreover, we also exploit these specific collections, and not pre-seasons, because they correspond to the moment when the latest trends are set, representing the maximum creativity of the artists, the novelty side of creativity. At the same time, these collections encompass the main product sold in stores and presented to the market (Seong & Godart, 2018).

To get information on the fashion houses in the industry, we collected data from Vogue.it and Vogue.com using a Python algorithm, downloading all the names of brands that did the WRTW fashion shows during the selected period (2009–2016). We overcame the issue of brands reported only in Vogue.it or Vogue.com by exploiting both websites in order to crosscheck data. Moreover, the use of Vogue Italia was legitimated because it is recognized as an authoritative magazine in the sector (Cappetta et al., 2006). We created a legend because the names of some brands differed according to the source we were using (Vogue.com or Vogue.it) or were spelled slightly differently among various collections.

Once we had collected a homogeneous list of all the brands, we selected the sample of houses according to the following four criteria: First, we included all the brands that systematically did biannual fashion shows in 2009–2016. Systematically means that they always present a collection with the general rule that they did not stop for two years or more. Secondly, to avoid biased estimates of selecting only those brands always presenting their collections, we also add all those fashion companies that repeatedly left and entered the market again, respecting the rule highlighted before of two years. Moreover, we include those brands that stop presenting the collection in the past for a more extended period but, after, they systematically restart to present their collections. Lastly, we also added those brands that started to systematically present their collections in fashion shows for the first time after 2009, some of them because recently founded. These criteria allowed us to include core brands of the industry, brands that do not always present collections, and more recently founded brands in order to have the most representative sample.

Following these criteria, we selected an initial sample of 516 houses, then restricted it to 363 because some brands did not provide any information at all about the designer or the CEO, or general information about the company. Examples are houses that did not even have a company website. The final sample represents a full overview of the industry, encompassing the leading players, and allowing for comparability.

Next, to fill in the dataset, we manually collected all the information available on these houses, their creative directors, and their CEOs. We matched every collection to its respective creative director and the CEO in charge during the collection's creation. Sources employed were primarily Vogue.com, Vogue.it, corporate websites, and relevant industry-specific websites (e.g., the Fashion Model Directory [FMD]). For creative director and CEO information, in particular, we also used Factiva, LinkedIn, Business of Fashion, Orbis, and all the relevant news on reliable Internet sources. For fashion house information, we relied widely on Orbis, corporate websites, and LinkedIn.

Empirical Strategy

To conduct our analysis, we need to address endogeneity concerns to infer causal links among variables. One primary source of endogeneity is linked to the fact that role separation is an endogenous choice of companies. If we think about our sample, it represents all the companies for which there is information about role separation (or not) between the creative director and CEO. Fashion companies, indeed, can self-select themselves into the role separation (or not) based on their creative conversion ability expectations. For this reason, our sample suffers from selection bias. Therefore, to address the endogeneity driven by role separation choices of the companies and to correct for the nonrandom sample bias, we followed what suggested by Bascle (2008) as the most effective in this situation: the Heckman selection model (Heckman, 1979). In the first step of this model, we estimate the selection equation as the probability of fashion houses to have role separation or not (probit model), given a series of covariates that past research suggested as driving role separation. After, we compute the inverse Mills ratio in order to correct the sample in the second step of the analysis (Wolfolds & Siegel, 2019).

Furthermore, our model is a moderated mediation model with panel data. We use the generalized structural equation modeling for mediation (Hayes, 2013; Preacher, Rucker, & Hayes, 2007). Structural equation modeling is one of the most suitable models for mediation and path analysis, especially given the flexibility it allows (Preacher & Hayes, 2008). In this context, we also use the flexibility enhanced by a generalized structural equation model (gsem) that permits the use of generalized linear regression models (mimicking papers already published within the fashion industry context with similar data – e.g., Seong and Godart, 2018). We add to gsem model also the bootstrapping – i.e., an advanced and fundamental technique for mediation analysis. It is a non-parametric resampling procedure that repeatedly measures the indirect effects - meaning the real mediation effects - on multiple samples. Bootstrapping increases the consistency and strength of our results (Preacher & Hayes, 2008).

Variables

Independent variable. Our main independent variable is whether or not the fashion house has executive role separation between creative and business functions. We labeled the variable as *Role Separation*, coded as a dummy variable equal to 1 if the creative director was not also CEO of the house, and equal to 0 if the creative director was also CEO.

Dependent variable. As Godart et al. (2012) did for measuring organizational creativity in a fashion context, we started with the data available in the Journal du Textile (JdT). At the end of each season, this magazine publishes the votes that industrial buyers have given to collections presented during the biannual fashion shows. For each season (fall/winter and spring/summer), JdT asks buyers (whose number ranges from 65 to 67) to rate from 1 (the most creative) to 20 those fashion houses' collections showing the most remarkable novelty. The journal transforms each ranking's position into points received by each brand (e.g., if a buyer ranks a brand 1, it gets 20 points from that buyer; if the ranking is 20, just 1 point instead). For every season, each fashion house receives a final score, which is the sum of the points associated with the brand's presence in buyers' rankings. Brands can also receive 0 points in case no buyer rated them as creative (Godart et al., 2012, 2013; Seong & Godart, 2018; Shipilov, Godart, & Clement, 2017). This measure is suitable for our study because we define our interest in how the major experts in the field evaluate the creativity and novelty of organizations. Buyers' creativity points are divided by the number of looks presented in each collection. As said in the explanation of the empirical setting, fashion houses prepare for fall/winter and spring/summer collections the so-called looks: a set of new garments and accessories which made the “creative creations” of the company, encompassing the meaning and symbolic value the creative director wants to channel (Cappetta et al., 2006; Crane & Bovone, 2006). Vogue.com and Vogue.it publish the number of looks presented in each fashion show. *Creative Conversion Ability* is, therefore, the ratio between buyers’ points and the number of looks presented. The higher the ratio, the higher the brand’s ability to gain recognition from buyers, given the number of looks presented.

Mediator Variable. The creative director's focus on creativity is measured as the number of details recognized and published by Vogue.com. Vogue.com collects in a separate section for each brand, all the details recognized as notable for being highlighted. This proxy is suitable for our context because it captures the attention of the designer to each piece of the look, signaling an increasing dedication to every single component presented to the fashion show. The variable labeled *Creative Director Focus* was highly skewed, and we log-transformed it.

Moderator Variables. We operationalize the effective collaboration with two distinct proxies, both recognized by past literature as a signal of effective collaboration. One proxy that captures effective collaboration is the tenure of the two executives in the company (Carpenter, 2002). We labeled *Shared Tenure*, the standardized variable identifying the years spent together in the fashion company by the two top executives (Krause, Love, & Priem, 2014). With the label, *Delta Tenure*, instead, we capture the absolute value in the difference of the tenure between the two executives. The absolute value of the difference is useful to assess if there exist time gaps between the two executives of when they join the company. Longer tenure gaps are generally detrimental to collaboration because they are not "equalizing" the two executives, harming their ability to collaborate (Krause et al., 2014).

Heckman First Stage Variables. Past research recognized variables affecting the probability of role separation in companies. First, the size of the firm affects the organizational structure and also the definitions of roles, often called formalization (Lei, Slocum, & Pitts, 1999; Pertusa-Ortega, Zaragoza-Sáez, & Claver-Cortés, 2010). Larger firms generally need to separate business areas and who leads them. In creative settings, finding measures of firms' size is extremely difficult (Caves, 2000). Since the majority of houses are private, we know little about their financials. Therefore, we followed previous studies controlling for organizational age, ownership, and group belonging (Shipilov et al., 2017). *Fashion Brand Age* captures the years of the fashion company since the foundation, and given the high skewness, we log-transformed it. *Ownership*, meaning if the company is publicly listed or privately held, is coded as 1 in cases when the company is public, and 0 otherwise. Public companies require more formalization in the structure, asking for a CEO separated from the Creative Director. Also, we added a control *Group*, which takes into account when fashion houses belong to a group like Kering or LVMH. Being part of the group requires adherence to standards of groups, meaning a CEO, distinct from the creative director, controlling the business operations, and reporting results to the group (Rawley, Godart, & Shipilov, 2018). Therefore, with a dummy variable, we coded houses belonging to a group as 1, and 0 otherwise.

Moreover, the *Number of Founders* is a numerical variable identifying the number of people who founded the company. The more founders of the company, the higher the probability that role separation exists. One founder can lead the creative area, while a business partner deals with the business administration. For example, this is the case of brands like Christophe Lemaire.

Lastly, creative directors can design multiple collections in the same season for different fashion houses, making diverse collections in terms of color, fabric, etc. Given that each collection carries the creative director's name, we checked to see when the same creative director created collections for different companies. We labeled this variable *Multi Companies Collections* and coded it as a dummy equal to 1 in cases where the designer produced both collections, and 0 otherwise. For example, Demna Gvasalia, the creative director of Balenciaga, is also the creative director of Vêtements, another fashion house. In the previous example, we coded as 1 when the designer was the creative director of both brands, and 0 otherwise. Creative directors working in two companies may find necessary the help of the CEO to create more than one collection.

Control Variables.

We add some controls at the company, collection, and creative director level, accounting also for the relationship between creative director and CEO. First, at the company level, it is important to control for cases in which the fashion house carries the name of the designer (e.g., Tory Burch), as highlighted in previous studies as affecting creativity evaluated by buyers (e.g., Seong & Godart, 2018). Therefore, we added a dummy variable, *Eponymous*, coded as 1 in such cases, and 0 otherwise. Moreover, even if role configuration is generally stable in companies, we need to take into account the effect of changes from role separation to consolidation and vice versa. As in the case of Burberry highlighted before, creativity and, therefore, creative conversion ability, can change when there is a sudden refresh of the roles configuration. We added a dummy variable, called *Change Structure*, that takes value 1 when the company moved from role separation to consolidation and the other way round.

Looking closely at collections, the creative director can create, besides the mainline - the one we analyze -, a secondary line, often labeled a "diffusion line." Job variety can increase the creativity of the creative director (Oldham & Cummings, 1996), thus fostering the creative conversion ability of the mainline, the most important line for the business, and the one requiring novelty creations. At the same time, "one important circumstance that does, however, inhibit couture creativity is the frequency with which designers are expected to present their wares to the public" (Davis, 2004: 125). Therefore, we control for secondary lines. Vogue.com and Vogue.it disclose them, and we can collect exactly when these lines presented a collection that was important enough to be inserted into the group of all brands running seasonal fashion shows. Therefore, the variable *Secondary Line* is a dummy coded 1 if the fashion brand was presenting the secondary-line collection in a fashion show, and 0 otherwise. For example, Alexander McQueen has a secondary line called McQ by Alexander McQueen that presented a collection reported by Vogue for fall/winter 2012 but not for spring/summer 2013. Therefore, the dummy is coded 1 for that fall/winter season, and 0 for spring/summer.

As far as collections are concerned, we also control for the fact that there are houses such as Opening Ceremony, where two creative directors design collections conjointly (e.g., Humberto Leon and Carol Lim). Two minds working simultaneously on the same collection may develop more creative ideas and get better creativity results. Therefore, we control for *Multiple Designers*. These variables are coded as 1 in cases where there are multiple designers or multiple CEOs, and 0 otherwise.

Since we care about the two roles of creative director and CEO, we control for their age and cultural distance. For age, we followed previous approaches in which the variables *Average Designer Age* and *Average CEO Age* take the average age in cases of multiple designers or CEOs (Godart et al., 2013). Moreover, from previous studies, we know that cultural distance matters for creativity, especially when measured by buyers' ratings (Godart et al., 2012). Therefore, since our interest is related to the role effect on creative conversion ability, we measure the difference in cultural distance between creative directors and CEOs (taking into account, of course, cases in which there are multiple designers and CEOs). For the variable *Cultural Distance*, we measured the difference between the designer and the

CEO's home countries' scores developed by Hofstede (Hofstede, 1980; Hofstede, Hofstede, & Minkov, 2010). These scores assign values to the culture of each country based on several dimensions,[2] which we aggregated to get a single score for each country. Based on Kandogan's (2012) approach, we measured the difference between the country score of the creative director and that of the CEO. Kandogan's measure is the evolution of Kogut and Singh's (1988) measure (Kandogan, 2012; Kogut & Singh, 1988). This variable was highly skewed. Therefore we log-transformed it.

Moreover, we know that buyers may be more aware of those brands that have higher visibility, often labeled "media coverage" (Seong & Godart, 2018). Therefore, we collect the number of Factiva articles, in all languages, without duplicates, that mentioned each fashion house in the year before the collection (Godart et al., 2013). Since the variable was highly skewed, we log-transformed it in line with the above studies ($\textit{Fashion Brand Articles}_{t-1}$). Since articles may also be related to creative directors or CEOs, we add a control for the absolute value of the difference in the number of Factiva articles between the designer and the CEO ($\textit{Delta DesignerCEO Articles}_{t-1}$). We looked at the difference in the number of articles in order to avoid double-counting news items in cases where the designer is also CEO. In such cases, the difference is zero, and the simple count would be equal.

Lastly, we know that buyers' attention and resources gained to generate looks are influenced by the awards brands and creative directors receive. We use the same awards measure employed by Godart and Galunic (2019). The Council of Fashion Designers of America and the British Fashion Council confer the most prestigious awards in the industry (Godart & Galunic, 2019). They influence buyers' judgment of organizational creativity because buyers may dedicate more attention to awarded collections. Since the variables encompassing the count of awards received in the previous year were highly skewed, we log-

[2] We consider as dimensions, PDI, IDV,UAI, MAS. Power distance index (PDI), individualism vs. collectivism (IDV), uncertainty avoidance (UAI), masculinity vs. femininity (MAS)

transformed them (*FashionBrand Awards*$_{t-1}$ and *Designer Awards*$_{t-1}$). We did not include CEOs' awards, because only six CEOs received an award in the period analyzed (2009–2016).

We added collection fixed effect in order to capture the time-invariant effect of the collections, closely linked to the brands' characteristics.

RESULTS

Table 1 shows variables' descriptive statistics and Pearson correlations.

Insert Table 1 about here

Even if, in general, correlations are low, we can see high correlations, for example, between *Average Designer Age* and *Average CEO Age*. Given the high correlations and the related issue of multicollinearity, we checked whether those variables should coexist in the same model. We analyzed the variance inflation factor (VIF), and all our variables have VIFs significantly lower than 10 (the largest value is lower than 4), which is the accepted threshold for inferring a possible multicollinearity problem (Diamantopoulos & Winklhofer, 2001). Lastly, *Role Separation* is significantly correlated with *Shared Tenure* and *Delta Tenure*. This is the straightforward result of the fact that when there is no role separation, a creative director who is also the CEO displays equal tenure, thus always sharing the same years of tenure and no difference in it. Adding the moderators together with the other variables in the regression, VIF is still lower than 4.

Insert Table 2 about here

Table 2 displays the results for the first stage Heckman model. Role separation is positively and significant driven by *Fashion Brand Age* ($\beta = 3.82$, $p < 0.001$), *Ownership* ($\beta = 3.50$, $p < 0.001$), *Group* ($\beta = 9.08$, $p < 0.001$), and *Number of Founders* ($\beta = 3.43$, $p < 0.001$).. Less significant is the impact of the creative director simultaneously working for multiple organizations ($\beta = 0.77$, $p < 0.1$). From that equation, we generate the variable called *Mills* to correct for endogeneity, as explained before.

Insert Table 3 and 4 about here

Table 3 displays Model 2 that shows all the controls and Model 3, which tests our main prediction of H1. As a general comment on control variables *Fashion House Articles*$_{t-1}$ has a positive and significant effect on creativity, echoing Seong and Godart (2018) paper. *Designer Awards*$_{t-1}$ is positively related to organizational creativity. Awards received in the previous year are an important signal of the creativity of the house or the creative director, in line with Shipilov et al. (2017) findings. Given that *Creative Conversion Ability* is a continuous variable, we use a generalized least squares procedure, with the collection fixed effect and robust standard errors. Model 3 shows support to our H1 ($\beta = 0.53$, $p < 0.1$)

Model 4 and 5 in Table 4 show the results for the test of mediation with gsem. In order to test for mediation, we need to find: (1) a significant relationship between the dependent and the independent variable (showed in Model 2); (2) a significant relationship between the mediator and the independent variable; (3) a significant relationship between the mediator and the dependent variable, even in the presence of the independent variable that should become statistically insignificant or with a lower economic impact and significance (Dokko & Rosenkopf, 2010). Model 4 showed the relationship between *Role Separation* (independent variable) and *Creative Director Focus* (mediator), displaying a significant impact of Role Separation on the mediator ($\beta = 0.37$, $p < 0.001$). Model 5 shows the second stage with both independent variable and mediator predicting the *Creative Conversion Ability*. *Creative Director Focus* is positive and significant ($\beta = 0.45$, $p < 0.001$). *Role Separation*, when *Creative Director Focus* is added to the same analysis, its significance is lower ($\beta = 0.19$, $p < 0.1$). To find support to our H2, with 500 bootstrap runs, we infer the indirect effect of mediation, direct, and total effect for mediation. Table 5 shows the indirect effect of mediation 0.165 ($p < 0.001$), supporting our H2. Less significant is the direct effect of Role Separation on Creative Conversion ability when adding the mediator. The value is 0.192 ($p < 0.1$), signaling a partial mediation.

Table 4 encompasses the models with tenure variables as proxies for effective collaboration. Even if *Shared Tenure* does not have significant effects in the model, when we consider the full model, the interaction between *Role Separation* and *Shared Tenure* is positive and significant ($\beta = 0.45$, $p < 0.1$). *Delta Tenure* instead is negative and significant in the first path of mediation, when interacted with *Role Separation* ($\beta = -0.09$, $p < 0.001$), signaling that longer tenure gaps between executives are detrimental to the *Creative Director Focus*.

In the case of moderated mediation, what is essential to assess is the conditional indirect effect of the mediation, which means that when a moderator variable is added to the model, it affects the indirect effect of the mediation (Hayes, 2013). Table 6 shows the bootstrap biased corrected confidence intervals and value for the conditional indirect effect, finding support to our H3. For *Shared Tenure*, the mediation effect increases with the moderator, meaning that the longer the years the creative director and CEO work together (i.e., the more they effectively collaborate), the more the mediation affects the dependent variable. The conditional indirect effect when adding the *Delta Tenure* is decreasing, signaling that the more years of difference in tenure are negatively contributing to *Creative Director Focus* on creativity, and therefore negatively impacting creative conversion ability.

Robustness Checks

Tables 6 and 7 contain robustness checks added to further verify the consistency and strength of our results.

Insert Table 6 and 7 about here

One of the problems that could potentially bias our result is given by the fact that companies may change creative directors' consolidation of roles in their hands with role separation or vice versa. This change can be done to boost companies' results or because of previous poor Creative Conversion Ability. To rule out that possible explanation, we track those fashion companies who changed the structure from role separation to consolidation and vice versa. We ended up with 28 cases in all the period of the panel (2009-2016). We coded these 28 changes as the TREATMENT during the collection period when they happened, and we matched fashion houses that made this change with a control group that did not experience the before-mentioned change in roles between two executives. We employed CEM matching, with the exact matching between companies (Blackwell, Iacus, King, & Porro, 2009). The variables used to match the companies are structural variables: Collection period, Fashion Brand Age, Ownership, Group, and the number of looks presented to the fashion shows that gives a comparison of resources among brands. We found 22 exact matches, and we compare treated and control group average conversion ability one year before the change and one year after the change. For Past Creative Conversion ability, we found no statistical difference between the mean of the two groups ($M_{TREATMENT} = 0.527$, SD = 0.185 versus $M_{CONTROL} = 0.695$, SD = 0.37, $p = 0.715$). For Creative Conversion Ability one year after the change from role separation to consolidation or vice versa, there is also no significant difference between the mean of the two groups ($M_{TREATMENT} = 0.442$, SD = 0.221 versus $M_{CONTROL} = 0.442$, SD = 0.173, $p = 0.9976$). Results are consistent also if we use a time window of 6 months. Table 6 graphically displays the results.

Table 7 displays Model 10 and 11. The former controls for founders who can have a substantial role in the organization, exerting a persistent influence (Nelson, 2003). Creativity literature stresses the important roles of funders. Especially, creative directors are often the founders of their businesses and control the whole company, consolidating in their hands also the CEO role (Godart et al., 2013). Being the founder of the creative companies however, is considered important for the identity and image of the fashion brand. Therefore, we check whether in case of creative director, being the CEO of the company, but also the founder, this conveys a different result with respect to what tested. We found that when all these three roles are unified within the same person, creative conversion ability is lower ($\beta = -0.61$, $p < 0.05$).

In Model 11, we control for the best available variables related to the firm resources availability, downloaded from the Orbis database. The creative process in creative organizations requires resources (Shalley & Gilson, 2004). Therefore, we control for proxies of resources to check if our results were consistent. Larger firms may have more resources available to the creative director, and this may increase the ability to generate novelty (Shalley et al., 2004). Given that almost all houses are private, we download the number of employees and the total assets information available on Orbis. We first match each company with its Orbis number using national identification codes from corporate websites (i.e., UK VAT, France SIREN/SIRET, Italian Fiscal Code, etc.). Adding these control variables further corroborates our findings, although the sample size decreases significantly. Our results are fully confirmed when controlling for the best proxies available (*Employees* and *Total Assets*).

DISCUSSION AND CONCLUSION

The main result of the paper lies in the fact that role separation between creative and economic functions increases the ability for creative directors to generate novelty that is successfully converted into products recognized as novel and new-to-the-word. This paper gives an answer to the quest of past scholars not to focus on idea generation and creative performance, ignoring how to move from idea to consumption (Thompson et al., 2007). We, indeed, look closely at mechanisms within the process from creations to products deemed as creative (DeFilippi et al., 207; Thompson et al., 2007). This is essential for creative organizations. Even if they have to deal with the market, their business and, ultimately, their success largely depends on the ability of their creative director to generate always something novel and creative (Wijnberg & Gemser, 2000; Townley et al., 2009).

A large number of studies showed the importance of informal structure to boosting creativity (e.g., Burt, 2004), but past studies suggested that, in creative organizations, also the roles of executives (i.e., the organization at the top) matters (Clement et al., 2019). Literature advocated that both role separation and role consolidation exist (Alvarez et al., 2005). To our knowledge, this is the first attempt to test on a large scale, whether role separation between creative director and CEO outperform consolidation of roles in the hand of the creative executive. Moreover, we advance recent studies by really trying to understand the mechanism behind the reason why role separation ends up with superior creative products, by studying the crucial effects that separation of executives' activities has on companies' success. Even though we study a creative setting, we argue that whenever companies need to innovate as well as sustain performance, executive role separation may be a suitable strategy. Our findings echo past research showing the importance of organizing people and their tasks to pursue strategic innovation (Tushman & Nadler, 1986).

Besides, we advance studies on creativity within organizations because we provide a mechanism for how people can innovate through role separation. Creative directors, or whoever is tasked with creation in a firm (new processes or activities), have to focus on their creative tasks, experiment, and be free to take risks to develop new ideas (Alencar & Bruno-Faria, 1997; Tyagi, Hanoch, Hall, Runco, & Denham, 2017). This can be effectively done if there is a CEO or more general business director to take care of all the other non-creative aspects of the firm still crucial for survival. This mechanism of how role separation is pivotal to creative conversion ability was shown in this paper in our examination of the mediator variable, creative director focus. Although we found partial mediation, our result suggests that creative director successfully develops new combinatorial opportunities - the key to generating novelty (Arts & Fleming, 2018) – by taking advantage of the presence of a CEO. Therefore, creative directors' creativity reaches its highest level in cases where they can channel all their resources into their creative projects.

Furthermore, besides the benefit of role separation, there are also the costs of having two executives that can face conflicts due to their different objectives to pursue (Baker & Faulkner, 1991). Economic and creative objectives are always challenging to balance in creative organizations (Reid & Karambayya, 2009). We found, indeed, that role separation is more useful in the case of effective collaboration between the pair. Role separation works better when two executives start the journey together and create a so-called "creative couple" (Sally, 2002). They create such alchemy that they can reduce conflicts and choose each other as trustable partners. This corroborates the idea that having two executives leading the creative and economic sides of the business is not that successful when just one director enters a firm where the other executive already has his routines and power established (Arnone & Stumpf, 2010; Sally, 2002). This really allows the creative director to focus on creativity and develop extremely novel products.

Dealing with creative director and CEO conflicting objectives, even though we test this idea in a peculiar setting, the fashion industry, these results address past research claims suggesting that a clear structure of roles is a good strategy when firms need to address multiple objectives. Past research on pluralistic organizations (Denis et al., 2001; Denis, Langley, & Rouleau, 2007), meaning companies that face multiple and often conflicting objectives, and on multiple logics within the firm (Battilana & Dorado, 2010), shows how using separate individuals to cover the contrasting creative and economic business areas is a valuable option in order to manage tensions between these areas. In our setting, fashion houses (and creative organizations in general) need to deal with novelty in their creations, as well as the market's economic logic (Baker & Faulkner, 1991). This implies completely different tasks and responsibilities that need to be assigned to diverse, competent people. The idea is that creative directors can specialize and dedicate all their time and energy to the innovative tasks, knowing that the managerial activities are in the hand of a CEO, thus preserving the success of the company (Hunter, Cushenbery, & Jayne, 2017).

These results also shed light on an important issue always raised but never extensively empirically tested by dual leadership scholars (Denis et al., 2012). The literature has plenty of case studies suggesting the importance of having dual leaders to deal with companies' multiple objectives (e.g., Gronn, 1999; Gronn & Hamilton, 2004). To our knowledge, this is the first attempt to empirically test on a large scale that having dual leadership is generally beneficial, especially for firms balancing multiple objectives, i.e., complex organizations. This challenges past research that supported the importance of having just one leader to avoid conflicts and enhance unified strategy and vision (e.g., Locke, 2003). However, the desirability of having just one leader seems counterintuitive in complex organizations that require various skills and performance of multiple complementary activities. Ours is an empirical test of the idea from Hodgson et al. (1965) of the "executive role constellation," which laid out the importance of having more than one head to deal with multiple objectives and complementary tasks.

Our paper has, of course, some limitations. If separating roles is favorable for creative conversion ability, do companies without role separation (e.g., Armani) need to hire a CEO? To adequately address this question, we should investigate if, without role separation at the top, there are executives, like general managers, who intervene and support everyday business activities. At the same time, we should investigate whether creative directors who double as CEOs make time and energy for managerial activities by having a highly qualified senior designers' team to help with creative tasks. Unfortunately, this is a limitation of our study—the fact that we do not have information about other managers or creatives—mainly because most houses are private. Further research should deal with executives other than the CEO and creative director and with middle managers' roles in different creative contexts.

Moreover, we speculate that this role separation may work in all companies that need to pursue multiple objectives. Still, this assumption needs to be tested in other contexts—for example, in technology labs, to see whether scientists should have clear role division and assigned tasks to innovate.

Also, three-quarters of the brands in our study were founded in 2005 or before. This means that we do know if creative start-ups benefit, as well, from role separation. It would be interesting to investigate whether, in creative start-ups, artistic and administrative roles should be separated from the beginning.

Last, it would be relevant to study whether pure sales benefit from the firm's role separation to a greater or smaller degree than creativity does. Given that the majority of fashion houses are private, we do not have access to their financial records. Therefore, we leave for further studies to better assess the effect of role separation on the purely economic outcomes of the firm.

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Figure 1 – Theoretical Model

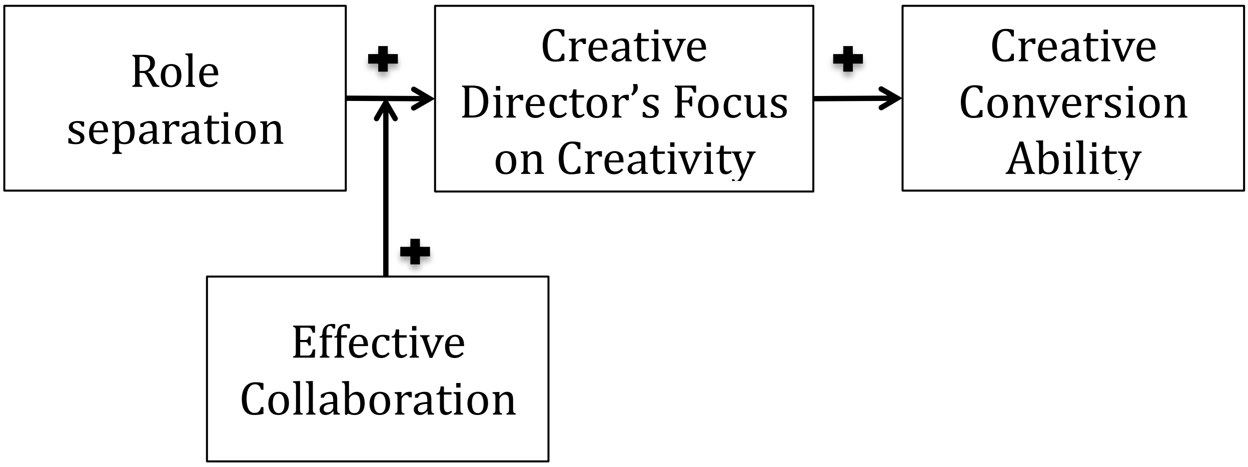
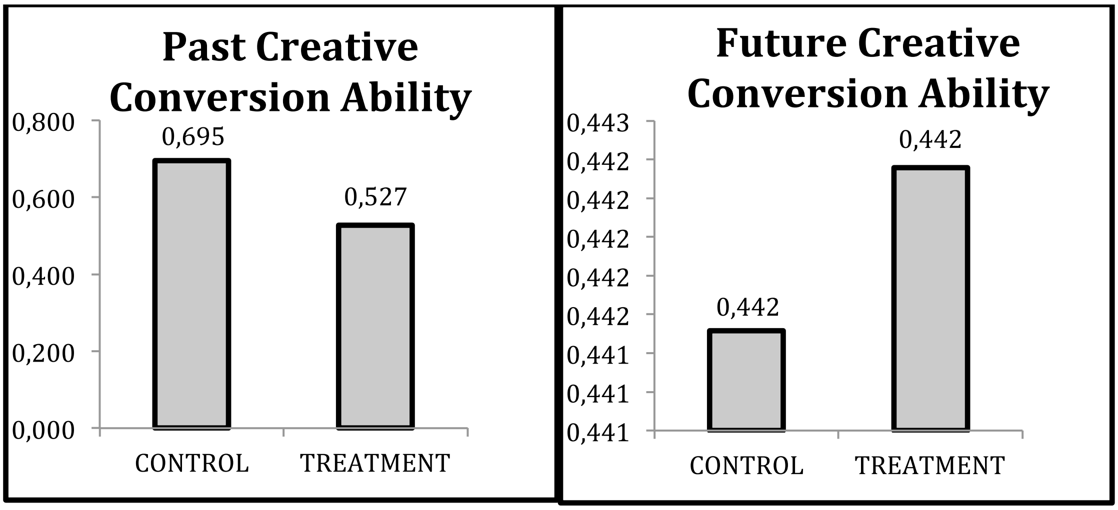


Figure 2 – Robustness Checks: Test matched sample difference in means



p-value (difference) = 0.7148 **p-value (difference) = 0.9976**

Table 1 – Descriptive Statistics and Pearson Correlation Coefficients

	Variable	Mean	SD	Min	Max	1	2	3
1	Creative Conversion Ability	1.12	2.70	0	40.3	1		
2	Role Separation	0.61	0.49	0	1	0.2361*	1	
3	Creative Director Focus	22.8	41.82	0	243	0.4599*	0.2314*	1
4	Shared Tenure	0.01	1.00	-0.73	3.99	-0.0828*	-0.4469*	-0.0102
5	Delta Tenure	4.39	8.31	0	58	0.0868*	0.4012*	0.1820*
6	Fashion Brand Age	2.95	1.01	0	5.31	0.2611*	0.4222*	0.2853*
7	Ownership	0.17	0.38	0	1	0.3487*	0.3308*	0.3717*
8	Group	0.22	0.42	0	1	0.3680*	0.3762*	0.2335*
9	Number of Founders	1.26	0.54	0	4	0.0043	0.1177*	0.0185
10	Multiple Companies Collections	0.14	0.35	0	1	0.0321*	0.0656*	0.0957*
11	Eponymous	0.43	0.50	0	1	-0.0943*	-0.2289*	-0.1136*
12	Change Structure	0.01	0.08	0	1	-0.0123	0.0299	0.0219
13	Secondary Line	0.09	0.28	0	1	0.2014*	0.1665*	0.2065*
14	Multiple Designers	0.11	0.32	0	1	-0.0563*	-0.1409*	-0.0310*
15	FashionBrand Articles t-1	4.54	1.96	0	8.87	0.4109*	0.4290*	0.4958*
16	Delta DesignerCEO Articles t-1	133.89	341.95	0	2803	0.3074*	0.3100*	0.4281*
17	Cultural Distance	0.24	0.43	0	2.15	0.1528*	0.4304*	0.1423*
18	Average Designer Age	46.17	12.23	20	82	0.0338*	0.0864*	0.1998*
19	Average CEO Age	47.91	11.28	22	83	0.1115*	0.2338*	0.2400*
20	Designer Awards t-1	0.03	0.14	0	1.1	0.1560*	0.0308*	0.2009*
21	FashionBrand Awards t-1	0.02	0.11	0	1.1	0.1648*	0.0323*	0.1564*

	Variable	4	5	6	7	8	9	10
4	Shared Tenure	1						
5	Delta Tenure	-0.3695*	1					
6	Fashion Brand Age	0.0648*	0.3326*	1				
7	Ownership	-0.1818*	0.1821*	0.3978*	1			
8	Group	-0.1800*	0.1879*	0.3390*	0.5177*	1		
9	Number of Founders	0.0286	-0.0457*	-0.1278*	-0.0169	-0.0316*	1	
10	Multiple Companies Collections	-0.1491*	0.0906*	0.1196*	0.1278*	0.2087*	-0.0486*	1
11	Eponymous	0.1967*	-0.0156	-0.3321*	-0.2430*	-0.2697*	-0.1728*	-0.1103*
12	Change Structure	-0.0335*	0.0920*	-0.0029	-0.0141	-0.0020	0.0036	0.0178
13	Secondary Line	0.0210	0.1355*	0.1156*	0.1160*	0.1324*	0.0296	-0.0180
14	Multiple Designers	-0.0334*	-0.0943*	-0.1377*	-0.0406*	-0.1363*	0.3857*	-0.0193
15	FashionBrand Articles t-1	-0.0765*	0.3038*	0.5276*	0.4842*	0.3408*	-0.0005	0.2259*
16	Delta DesignerCEO Articles t-1	-0.2046*	0.4485*	0.2321*	0.3343*	0.2947*	-0.0200	0.2188*
17	Cultural Distance	-0.2830*	0.2502*	0.2024*	0.1307*	0.2823*	-0.0066	0.0998*
18	Average Designer Age	0.4120*	0.3698*	0.4567*	0.1160*	0.1588*	-0.0644*	-0.0329*
19	Average CEO Age	0.3738*	0.2105*	0.5374*	0.2394*	0.2046*	-0.0719*	0.0070
20	Designer Awards t-1	-0.0556*	0.0359*	0.0138	0.0977*	0.0874*	0.0168	0.0822*
21	FashionBrand Awards t-1	-0.0385*	-0.0111	0.0224	0.0867*	0.0360*	0.0282	0.0003

	Variable	11	12	13	14	15
11	Eponymous	1				
12	Change Structure	-0.0064	1			
13	Secondary Line	-0.0128	-0.0041	1		
14	Multiple Designers	-0.2893*	0.0075	-0.0087	1	
15	FashionBrand Articles t-1	-0.1502*	0.0324*	0.2773*	-0.0734*	1
16	Delta DesignerCEO Articles t-1	0.0572*	-0.0121	0.2074*	-0.1082*	0.4357*
17	Cultural Distance	-0.0887*	0.0352*	-0.0179	-0.0274	0.1945*
18	Average Designer Age	0.0544*	-0.0266	0.1906*	-0.1550*	0.1985*
19	Average CEO Age	-0.1161*	-0.0092	0.1250*	-0.2004*	0.3161*
20	Designer Awards t-1	-0.0340*	0.0289	0.0460*	0.0381*	0.1768*
21	FashionBrand Awards t-1	-0.0697*	0.0072	0.1050*	0.0565*	0.1294*

	Variable	16	17	18	19	20	21
16	Delta DesignerCEO Articles t-1	1					
17	Cultural Distance	0.2348*	1				
18	Average Designer Age	0.2545*	0.0929*	1			
19	Average CEO Age	0.1770*	0.0917*	0.7041*	1		
20	Designer Awards t-1	0.1893*	0.0340*	-0.0659*	-0.0163	1	
21	FashionBrand Awards t-1	0.0915*	-0.0128	-0.0737*	-0.0184	0.1250*	1

Note: Standard errors in parentheses. * $p < 0.05$

Table 2 – Heckman First Stage – Selection Model (xtprobit)

	Model 1 - Heckman First Stage	
	DV: ROLE SEPARATION	
VARIABLES	Coefficient	Standard Errors
Fashion Brand Age	3.82***	(0.25)
Ownership	3.50***	(0.96)
Group	9.08***	(1.35)
Number of Founders	3.43***	(0.43)
Multiple Companies Collections	0.77+	(0.39)
Constant	-14.27***	(0.99)
Observations	4,110	
Number of Fashion Houses	358	

Note: Standard errors in parentheses. + $p < 0.1$ * $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$

Table 3 – Results of regressions of role separation on creative conversion ability

	Model 2 - controls (xtreg)		**Model 3 - Test of H1 (xtreg)**	
	DV: Creative Conversion Ability		DV: Creative Conversion Ability	
VARIABLES	Coefficient	Standard Errors	Coefficient	Standard Errors
H1 - Role Separation			0.53+	(0.30)
Mills	-0.06	(0.05)	-0.05	(0.05)
Eponymous	1.07	(0.70)	1.11	(0.70)
Change Structure	0.10	(0.16)	-0.05	(0.17)
Secondary Line	0.60*	(0.27)	0.57*	(0.28)
Multiple Designers	-0.26	(0.85)	-0.15	(0.89)
FashionBrand Articles t-1	0.27***	(0.07)	0.26***	(0.06)
Delta DesignerCEO Articles t-1	0.00	(0.00)	0.00	(0.00)
Cultural Distance	-0.26	(0.18)	-0.37	(0.23)
Average Designer Age	-0.01	(0.02)	-0.00	(0.02)
Average CEO Age	0.01	(0.01)	0.01	(0.01)
Designer Awards t-1	1.16**	(0.40)	1.17**	(0.40)
FashionBrand Awards t-1	1.64**	(0.52)	1.64**	(0.52)
Constant	-0.63	(0.72)	-0.93	(0.75)
Collection Fixed Effects	Yes		Yes	
Observations	2,894		2,894	
Number of Fashion Houses	264		264	

Note: Standard errors in parentheses. + $p < 0.1$ * $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$

Table 4 – Results of gsem mediation and moderated mediation

	GSEM model for Mediation		GSEM model for Mediation		GSEM model for Moderated Mediation		GSEM model for Moderated Mediation		GSEM model for Moderated Mediation		GSEM model for Moderated Mediation	
	Model 4 -Role Separation on Creative Director Focus		**Model 5 –Full Model**		**Model 6 - Moderation Shared Tenure**		**Model 7 - Moderation Shared Tenure**		**Model 8 - Moderation Delta Tenure**		**Model 9 - Moderation Shared Tenure**	
	DV: Creative Director Focus		DV: Creative Conversion Ability		DV: Creative Director Focus		DV: Creative Conversion Ability		DV: Creative Director Focus		DV: Creative Conversion Ability	
VARIABLES	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se
Role Separation	0.37***	(0.09)	0.19+	(0.10)	0.45***	(0.11)	0.14	(0.16)	0.54***	(0.10)	0.28*	(0.13)
Creative Director Focus			0.45***	(0.03)			0.45***	(0.03)			0.45***	(0.03)
Shared Tenure					0.08	(0.07)	-0.06	(0.09)				
Role Separation x Shared Tenure					0.10	(0.08)	0.22+	(0.12)				
Delta Tenure									0.06**	(0.02)	-0.10**	(0.03)
Role Separation x Delta Tenure									-0.09***	(0.02)	0.07*	(0.03)
Mills	0.08***	(0.02)	-0.11***	(0.02)	0.09***	(0.02)	-0.12***	(0.03)	0.09***	(0.02)	-0.11***	(0.03)
Eponymous	-0.17*	(0.08)	0.03	(0.09)	-0.20**	(0.08)	0.02	(0.11)	-0.15*	(0.08)	0.03	(0.11)
Change Structure	0.33	(0.55)	-1.39***	(0.38)	0.36	(0.47)	-1.37*	(0.66)	0.39	(0.48)	-0.97	(0.67)
Secondary Line	0.02	(0.14)	0.74**	(0.23)	-0.00	(0.13)	0.71***	(0.18)	0.04	(0.13)	0.72***	(0.18)
Multiple Designers	0.30*	(0.13)	-0.60***	(0.12)	0.28*	(0.12)	-0.63***	(0.17)	0.32**	(0.12)	-0.64***	(0.17)
FashionBrand Articles t-1	0.21***	(0.02)	0.32***	(0.03)	0.22***	(0.02)	0.33***	(0.03)	0.21***	(0.02)	0.34***	(0.03)
Delta DesignerCEO Articles t-1	0.00***	(0.00)	0.00	(0.00)	0.00***	(0.00)	0.00*	(0.00)	0.00***	(0.00)	0.00**	(0.00)
Cultural Distance	-0.11	(0.10)	0.27*	(0.14)	-0.07	(0.09)	0.31**	(0.12)	-0.13	(0.08)	0.31**	(0.12)
Average Designer Age	0.01	(0.00)	-0.04***	(0.01)	0.00	(0.00)	-0.04***	(0.01)	0.01**	(0.00)	-0.04***	(0.01)
Average CEO Age	0.02***	(0.01)	0.01	(0.01)	0.02***	(0.00)	0.01+	(0.01)	0.02***	(0.00)	0.00	(0.01)
Designer Awards t-1	1.34***	(0.26)	0.55	(0.50)	1.32***	(0.25)	0.53	(0.35)	1.29***	(0.25)	0.58+	(0.35)
FashionBrand Awards t-1	1.91***	(0.30)	2.47*	(1.13)	1.89***	(0.33)	2.46***	(0.46)	1.81***	(0.33)	2.47***	(0.46)
Constant	-1.21***	(0.30)	0.83*	(0.38)	-1.08***	(0.29)	0.83*	(0.41)	-1.37***	(0.28)	0.68+	(0.40)
Collection Fixed Effects	yes		yes		yes		yes		yes		yes	
Observations	2,894		2,894		2,894		2,894		2,890		2,890	

Note: Standard errors in parentheses. + $p < 0.1$ * $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$

Table 5 – Effect of Mediation Model 4 and 5 (500 Bootstrap runs)

VARIABLES	INDIRECT EFFECT			DIRECT EFFECT			TOTAL EFFECT		
	Coeff	P-value	Confidence Interval	Coeff	P-value	Confidence Interval	Coeff	P-value	Confidence Interval
Creative Director Focus	0.165	0.000	.0823036 .2472288	0.192	0.055	-.0041335 .3880364	0.357	0.000	.1648753 .5485599

Table 6 – Conditional Indirect Effect of Moderated Mediation (500 Bootstrap runs)

VARIABLES	CONDITIONAL INDIRECT EFFECT - LOW			CONDITIONAL INDIRECT EFFECT - MEDIUM			CONDITIONAL INDIRECT EFFECT - HIGH		
	Coeff	P-value	Confidence Interval (BIC)	Coeff	P-value	Confidence Interval (BIC)	Coeff	P-value	Confidence Interval (BIC)
Shared Tenure	.027	0.869	-.2859899 .3655703	.398	0.009	.1182018 .7036996	.769	0.086	-.1245082 1.610648
Delta Tenure	.393	0.000	.2421722 .5183924	.393	0.000	.2421722 .5183924	-.252	0.073	-.5353454 .0102611

Table 7 – Robustness Checks: Regression Models with Founder and Orbis Variables

	Model 10 – Founder (xtreg)		Model 11 - Orbis Variables (xtreg)	
	DV: Creative Conversion Ability		DV: Creative Conversion Ability	
VARIABLES	Coefficient	Standard Errors	Coefficient	Standard Errors
Founder = Creative Director = CEO	-0.61*	(0.28)		
H1 - Role Separation			1.12**	(0.42)
Total Assets			-0.07	(0.20)
Employees			0.04	(0.14)
Controls	Yes	Yes	Yes	Yes
Constant	-0.31	(0.71)	-0.17	(2.33)
Collection Fixed Effects	Yes		Yes	
Observations	2,894		1,030	
Number of Fashion Houses	264		121	

Note: Standard errors in parentheses. + $p < 0.1$ * $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$

WHEN TMT LOSES ITS LAST "T": FUNCTIONAL TOP MANAGERS EFFECT ON MULTIFACETED FIRM PERFORMANCE

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Abstract. Past research found some evidence on the existence of CEO and Top Management Team (TMT) effect on organizational performance. However, results are mixed and often suffer from operationalization issues. By investigating functional TMT, this paper's main argument is that it is essential to study each single functional executive belonging to TMT and how he or she is influencing multiple dimensions of performance rather than the overall firm's performance. This is because each top executive brings his/her functional skills and abilities and contribute to a particular firm's performance dimension. This relationship is moderated by executives' depth and breadth of experience on particular functions. With a unique dataset on high-end fashion industry, I studied and found support to the fact that top executives in charge of more output functions – those related to the product and markets – are affecting more the product-related performance dimension. Instead, throughput functions – those related to efficiency and administrative activities – are affecting substantially the financial performance dimension. This paper opens up to the importance for strategic scholars and practitioners to really disentangle TMT composition and performance dimensions in order to infer how the company is competing and potentially outperform their competitors. The suggested methodology is to exploit the mobility of TMT to assess executives' influence on firm performance, instead of variance decomposition analysis and fixed-effects.

Keywords: performance, functional top management team, depth of experience, breadth of experience, creative organizations

INTRODUCTION

Every year Forbes releases a report showing a list of the most influential CMOs. Names like Jennifer Sey from Levi's Strauss & Co. or Diego Scotti from Verizon, are examples of people you can find in the 2019 Report. If CMOs are getting increasing attention from the media, we can also find claims in the news of the essential role of Luca Maestri, Apple's CFO, on company's financial activity. CFOs and CMOs are, however, just two examples of the several C-suites who work in the firm. C-suite executives, often grouped in the so-called Top Management Team (subsequently labeled TMT), are acquiring increasing importance in the press, underling specifically their essential impact on firm's success. Whether it is true or not that they are influencing firm's outcomes, especially performance, it is still an open question (Menz, 2012). Defining functional TMT as the senior executives in charge for one or more functional areas (Menz, 2012), upper-echelon theory suggests that companies are the reflection of their executives (Hambrick & Mason, 1984). However, research is still investigating if TMT has a real effect on performance and how to measure it. If on the one hand, COO appears to improve companies' results (Marcel, 2009), on the other hand, other studies showed opposite results (Hambrick & Cannella, 2004). Therefore, *do TMT executives affect performance*?

To answer to this question, I claim that past research on TMT overlooked two fundamental aspects, which are at the basis of this paper's argument. Firstly, there is a conspicuous amount of papers investigating TMT as a group by claiming executives' interdependence (Hambrick, Humphrey, & Gupta, 2015). However, research showed, in contrast, that executives are often independent actors, labeled as "barons" (Hambrick, 2007). Consequently, it would be much more insightful to investigate the simultaneous effect of each distinct functional TMT member on firm's outcomes. In fact, given their functional roles, meaning a set of precise tasks and responsibilities (Ebbers & Wijnberg, 2017), they generally tend to pay attention and exert effort in relation to those specific objectives required by their functions (Hambrick & Mason, 1984). This implies that, instead of affecting overall performance, they substantially contribute to a firm's success by influencing the performance dimensions related to their specific area of business. This leads to my second claim: TMT members should be studied in relation to multiple performance dimensions. Acknowledging the existence of performance multidimensionality (Venkatraman & Ramanujam, 1986), each TMT member, given the skills and abilities related to specific areas of expertise (Dearborn & Simon, 1958), and given the limited attention they channel to their defined tasks (Simon, 1955), are able to influence more some dimensions of performance rather than others. Therefore, in contrast to past research that looked at overall performance, one key insight of this paper is that, in order to really infer the functional TMT members' effect on overall firm's performance, it is fundamental to assess their impact on its multiple dimensions, knowing that "*anything that improves the task performance of the top management team should, accordingly, improve firm performance*" (Dezsö & Ross, 2012: 1074).

To investigate my research question, I focus on the fashion industry, because it a suitable setting to study multifaceted performance dimensions and different top executives in charge of leading them. Through a unique dataset of 363 high-end fashion companies, I downloaded all the available information on each TMT executive and, even if studied separately, I classify them among those in charge of output functions – related to the market and product – vs. those in charge of throughput functions – linked to efficiency, production and administration – (Hambrick & Mason, 1984). This idea of subgroups of functions is in line with past research that claimed that some functions share similar expertise, skills, and ways of reasoning that make them behaving in a similar manner (Richard, Wu, Markoczy, & Chung, 2019). In line with that, my claim is that executives with a role in output function will exert more influence on product-related performance. This is due to the fact those executives are closer to the final product realization, thus affecting the success of companies in terms of that type of outcome (Guadalupe, Li, & Wulf, 2013). In contrast, throughput functions impact more financial-related performance, because those executives are in charge of the efficiency and overall administrative activities ensuring financial stability. Preliminary analysis confirms that prediction.

This relationship among different functions and specific performance dimensions is moderated and can be explained by executives' experience in those functions. By working several years focusing on a particular function (depth of experience), TMT members become more expert and develop knowledge essential to achieve goals and objectives linked to that function, thus enhancing the related company's performance dimension (Beckman & Burton, 2008). Moreover, breadth of knowledge, meaning the number of different companies executives worked into covering the related function, allows to more flexible thinking and more ability to deal with unexpected issues (Cannella, Park, & Lee, 2008). This leads TMT members to achieve superior performance, especially in the dimension linked to the specific role.

This study aims at the following contributions. First, this study contributes to upper-echelon theory by showing how each executive is affecting distinct performance dimensions. By disentangling both TMT functional composition and performance, this paper reconciles the fact that past research was inconclusively about functional TMT and performance (Menz, 2012). Top executives influence overall performance in connection with their specialized business area (Carpenter *et al.*, 2004). Moreover, I build on past literature by overcoming the idea that TMT should be studied as a unified group (Hambrick *et al.*, 2015). Past research investigated TMT attributes and, especially, heterogeneity in demographic characteristics as determinant of firm's successful outcomes (e.g. Hambrick, Cho, & Chen, 1996). However, scholar claimed that even in homogeneous TMT there are differences and literature has often overlooked all the single differences of TMT members (Olson, Parayitam, & Bao, 2007). Therefore, I add to past research by disentangling each single TMT member and investigate the respective contribution to firm's performance dimensions, based on their affiliation to output or throughput functions.

Moreover, this paper provides insights for both practitioners and academics. Basically, one result highlights that there are some C-suite (in this paper, the Head of Communication) who have a blurred function able to influence more than one performance dimension. Companies need to really pay attention to who is in charge of these functions and, if these individuals are talented, how to retain them (Noe, Hollenbeck, Gerhart, & Wright, 2017). This opens up to future research on which function influences multiple dimensions and under what conditions. Moreover, there are other functional TMT members that influence different performance dimensions in contrasting way (in this paper, the COO and the Head of Retail are examples). This means that this kind of executives, by working on their objectives and enhancing the related performance outcome, tends to lower, instead, the other performance dimension. This is especially salient in those companies where functional roles are assigned in relation to conflicting objectives, the so-called complex organizations (Schendel & Patton, 1978). By employing different TMT members covering multiple and conflicting objectives, these organizations need to balance the performance dimensions in order to achieve overall success. This paper, therefore, sheds light on how TMT should be strategically balanced in order to ensure that the overall performance is enhanced. This means paying particular attention to those business areas that may work one against the other.

Furthermore, scholars recently argued that functional TMT should be investigated disentangling their current role from their functional background (Higgins & Gulati, 2006). Even if they are generally assumed to be overlapping, they are instead, two different constructs with different implications (Ferguson, Cohen, Burton, & Beckman, 2016).

Ferguson and colleagues (2016) argued that this (mis)matching between role and experience can be either good or bad for the company. This research builds up on that idea by analyzing how depth and breadth of experience in specific functions lead to performance dimensions implications. This adds to that literature by showing how the match of role and functional experience can be good for company.

Lastly, this paper employs a different methodology to investigate how each functional TMT member affects performance dimensions. Instead of variance decomposition analysis and fixed-effect (Blettner, Chaddad, & Bettis, 2012; Fitza, 2014), I identify mobility as a shock in which I can get if each executive is affecting one dimension or not. If the executive's change is significantly impacting one performance dimension, this means that that functional TMT member was able to influence that firm's outcome (Oettl, 2012).

THEORY

Performance & Complex Organizations

Performance is at the heart of management, especially strategic management (Venkatraman & Ramanujam, 1986). Assessing and understanding what drives business performance is pivotal for scholars, as well as for practitioners, and it has been a core topic of investigation. Superior performance is often associated with successful firms and their ability to compete achieving a substantial advantage in the market (Dess & Robinson, 1984).

However, performance is complex to assess because it is both multidimensional and not a generalizable construct for all firms (Venkatraman & Ramanujam, 1986). Indeed, researchers recognized that employing only profits or other financial return measures is not capturing all the activities and aspects that contribute to that company's performance achievements (Ridgway, 1956). This is because superior performance is the result of firm's ability to combine and sustain various goals and objectives (Cho & Pucik, 2005; Richard *et al.*, 2009). To make an example, superior performance may be the consequence of introducing new products by innovating, together with a good customer service and product design, all dimensions contributing to business success. Therefore, it is not possible to stick to a single measure of performance, but it is important to disentangle all the multiple dimensions that lead to it.

The problem of the multidimensionality of firms' performance is that all the various companies' goals and objectives may not work in the same direction. "*Strategy researchers' attention has been drawn repeatedly to the conflicting nature of performance dimensions such as long-term growth and short-term profitability, and the associated problems of combining them into one composite dimension of performance*" (Venkatraman & Ramanujam, 1986, p. 807). Therefore, performance is often a good balance between multiple firms' objectives, or simply a good trade-off between conflicting dimensions.

This aspect is especially salient for the so-called complex organizations, those that are characterized by multiple performance objectives, often conflicting (Schendel & Patton, 1978). These organizations can be also defined as pluralistic, because of their multiple goals to pursue (Denis, Lamothe, & Langley, 2001; Denis, Langley, & Rouleau, 2007), or even hybrids, in case multiple institutional logics coexist within the same firm (Battilana & Dorado, 2010). In the literature, hybrid organizations often refer to those social enterprises combining for-profit and non-profit logics that, in order to survive, strive to combine business and social performance dimensions (Pache & Santos, 2013). Whether we call them complex, or pluralistic, or hybrids, those organizations are all characterized, for their survival and prosperity, by performance as a combination of several conflicting dimensions, embodied in various goals and objectives. In addition, complex organizations are increasingly common, especially because companies are competing in difficult environments where each single performance component becomes critical for success and, thus, requires to be investigated when dealing with overall performance (Schendel & Patton, 1978). Therefore, it turns out to be fundamental to disentangle and analyze multiple performance dimensions to shed light on overall firm's success.

Hence the focus of the paper is on complex organizations and their performance as a result of balancing all these competing internal dimensions. To achieve that, I argue in the following paragraphs that companies should leverage on their human capital that provides the distinct skills and abilities to contribute to the different performance objectives and dimensions.

Human capital, TMT and Performance

Dealing with firm's performance, one essential driver is human capital, defined as knowledge, skills and abilities of individuals (Coff, 2002; Mawdsley & Somaya, 2016). Research consistently shows that firms rely on their employees to achieve superior performance (e.g. Crook, Todd, Combs, Woehr, & Ketchen Jr, 2011). Individual workers contribute with all their skills, time, and activities to companies' achievements. However, not all the employees impact firm's performance equally. Actually, past scholars recognized that human capital is differentiating in terms of the amount of value provided to the firm, especially reflected in overall quality or ability of employees (Mawdsley & Somaya, 2016). This is why there is an extensive literature on the performance implications of high-value human capital (Call, Nyberg, & Thatcher, 2015), as well as an increasing amount of scholars interested in firm's upper-echelon. The reason is that it is generally expected that employees with high human capital skills and abilities are often promoted to top positions in the firm's hierarchy and, because of their roles, they can substantially impact firm's strategic decisions and overall success.

Actually, there is an extensive research on the importance of CEOs and their effect on company's outcomes (Bowman & Helfat, 2001; Crossland & Hambrick, 2011). Thanks to their roles and their expertise, research shows that they have a real effect on companies' performance. Especially, they contribute to strategic decisions, organizational design choices, and are in charge of running the entire business (Quigley & Hambrick, 2015). In addition, their cognitive abilities are pivotal to firm performance (Helfat & Peteraf, 2015).

However, firms cannot rely uniquely on CEOs' capabilities, meaning that it is important to broaden the spectrum of executives able to influence companies' results, especially performance (Cannella *et al.*, 2008). Upper-echelon theory suggests, indeed, that top management team (TMT) is the real determinant of firm's outcomes, especially performance (Hambrick & Mason, 1984). TMT is pivotal because firms' are the reflection of decisions, daily work activities, and abilities of each TMT member. Through their personalized interpretations of business situations, together with their skills, abilities, and knowledge, top executives influence companies' various business areas and future directions (Hambrick, 2007). In line with the idea that TMT is pivotal when dealing with firms, scholars started to investigate which characteristics of TMT discriminate among successful and inferior firms' outcomes. Research showed how TMT's different attributes influence top executives' behavior and strategic actions (Kor, 2006). In particular, literature tried to disentangle how tenure, age, experiences, functional background and other TMT characteristics affect companies' activities and outcomes (Carpenter, 2002; Pegels, Song, & Yang, 2000). In particular, mix of different TMT attributes, referred to TMT heterogeneity, has been proved to be a fundamental variable of analysis (Hambrick *et al.*, 1996). Actually, past research showed several links of TMT heterogeneity on R&D investments (Kor, 2006), corporate social performance (Wong, Ormiston, & Tetlock, 2011), global strategic postures (Carpenter & Fredrickson, 2001) and other firm's outcomes.

However, when dealing with TMT and performance, results are still mixed and inconclusive (Hambrick *et al.*, 2015). For example, research investigated if it is beneficial for companies' performance to include the COO (Chief Operating Officer) in the set of top executives. If on the one hand, Hambrick and Cannella (2004) found lower performance for organizations with COO, on the other hand, Marcel (2009) got opposite result: firms achieve better performance when employ COOs. General contradicting results of TMT and performance reflect two limitations of previous studies. First of all, when dealing with TMT, literature investigated mainly TMT as a group, without unpacking each single member's simultaneous effect on performance. Basically, TMT has often been considered as a group of highly interdependent people – meaning "*the degree to which roles and administrative mechanisms are arranged such that members of an executive group affect each other*" (Hambrick *et al.*, 2015: 450). However, in reality, TMT members are often loosely coupled "barons" (Hambrick, 2007). This implies that independent executives compose TMT (Boone & Hendriks, 2009). They do not generally interact with each other and they usually take care about their own activities, dealing with a specific set of information. Given their interest on their own areas of business, they often impact some but not all the firm's activities and objectives (Sambharya, 1996). This implies the second overlooked element from past research: performance multidimensionality. Actually, if we think about loosely coupled executives, this means that they will work to pursue some firm's objectives rather than other. I would expect, for example, that marketing people would care more about customer relations with respect to accounting and administrative top executives (Heyden, Sidhu, & Volberda, 2018). This is why I argue in this paper that it is pivotal to unpack TMT members and their effect on multiple performance dimensions to assess the real impact of C-suite on companies' outcomes.

Functional TMT and Performance Dimensions

Acknowledging the importance of not studying anymore TMT as a group but unpacking the simultaneous effect of each member on multiple dimensions of performance, one way to distinguish among top executives is through functional roles. Defining functional roles as organizational positions carrying a limited set of tasks and responsibilities (Ebbers & Wijnberg, 2017), past research showed that functional distinctions at TMT level are important to explain performance (Hambrick *et al.*, 2015; Menz, 2012). In fact, functional distinct top executives are not simply leading their functions, but research shows their strategic role within the organization and their ability to influence business top decisions and activities (Grover, Jeong, Kettinger, & Lee, 1993; Karhanna & Watson, 2006; Stephens, Ledbetter, Mitra, & Ford, 1992). In addition, when organizations are complex, one way to deal with all the various goals and objectives is to distribute these core objectives to various members, for example, dividing them based on functions (Ebbers & Wijnberg, 2017). This implies that functional characteristics of TMT members are fundamental variables in relation to firm's outcomes and a clear-cut way to distinguish among TMT members.

Even if functional TMT provides important explanations of companies' results, its link to performance is still fuzzy (Menz, 2012). The inconclusive results overlooked the multidimensionality of firms' performance and past research showed that TMT members often stick to their own area of business, generally related to their functions (Hambrick *at al.*, 2015).

Actually, because of their field of vision, meaning what executives care about and look at in an organization, TMT members are biased towards their own activities (Hambrick, 2007). This is called selective perception and scholar found that different functions create biases and distinct ways to interpret information and carry business activities (Daboub A. J., Rasheed, Priem, & Gray, 1995). This means that top executives with distinct functional roles generally act and work focusing on their business area and affect performance through the clear attention they dedicate to their functional activities. In fact, even if we can think about executives as generalists, each single TMT member contributes especially within his/her area of expertise (Dearborn & Simon, 1958; Hambrick & Mason, 1984). Actually, Dearborn and

Simon (1958) found in their paper that executives will address activities and problems using their functional expertise and they stick to that. Top executive, therefore, play a strategic role and affect companies outcomes. However, they do that by working on the set of tasks and responsibilities related to their area of business. Basically, we can expect that these executives employ their recourses, especially their cognitive ones, on the company's activities they are responsible for. It turns out that "*each executive is responsible for only a piece of the firm's value-creation process*" (Hambrick *et al.*, 2015: 451). Therefore, it is fundamental to look at functional top executives' effect on exactly those performance dimensions they are exerting more effort to carry.

In addition, we know that individuals experience bounded rationality (Simon, 1955). People have limited attention they can dedicate to daily activities. Given executives' limited cognitive abilities, they primarily dedicate their attention to effectively lead their business functions (Hambrick & Mason, 1984). This generally means that TMT members influence performance through their work activities enhancing their functional effective outcomes, therefore affecting more the dimensions of performance related to their objectives and goals. Moreover, given the limited cognitive resources of individuals, they generally employ simplified mental models, also called schemata or heuristics, in order to deal with complex decision-making processes and business situations (Schwenk, 1984). Research found that functional distinction among members influences executives' ways of reasoning and mental models, affecting their daily decisions (Knight, et al., 1999). This implies that executives employ cognitive schemata related to their functions and they often take decisions in relation to their functions, thus affecting the performance dimension related to their peculiar business area.

Furthermore, companies structure their TMT by assigning different tasks and responsibilities to distinct TMT members, generally relying on the division of labor to carry company's activities (Carpenter & Fredrickson, 2001). Literature showed that functional TMT executives are often hired to compensate for the lack of skills and expertise of other members. For example, Hambrick and Cannella (2004) showed that COO was often hired to compensate for CEO's lack of skills concerning with operations. This means that, by dividing up executives' tasks and responsibilities, each TMT member is focused on his/her own area of business, the one related to his/her role. Consequently, we can expect that if TMT members compensate for the lack of skills of other executives, they will focus on their area of expertise, affecting, therefore, specific performance objectives and outcomes.

Summing up, functional TMT has a clear link to performance. However, multidimensionality of performance is how different functional TMT members substantially impact company's success.

Output and Throughput Functions on Performance Dimensions

If each functional top executive affects particular performance dimensions, it is important to disentangle which function is contributing to specific firm's goals and objectives. Functions are generally grouped together based on the similarity in knowledge, skills, and capabilities. This is because group of functions share similar ways of interpreting the reality, based on common set of expertise, education, and training. This is evinced, for example, by the study of Daboub and colleagues (1995) who highlighted the idea that some functions are more prone to commit wrongdoings, because they share common assumptions and interpretations about the reality and about what is illegal (Daboub *et al.*, 1995).

Dealing specifically with TMT, this idea that some functions share more expertise and cognitive features than others is found in those studies investigating the presence of distinct functional subgroups within TMT. These groups, in fact, are based on similar knowledge and functional reasoning commonalities (Richard, Wu, Markoczy, & Chung, 2019). Therefore, they have common objectives, assumptions, and ways of reasoning that lead them to influence similar components of performance (Guadalupe *et al.*, 2013). For example, evidence of group of functions affecting different company's outcomes is found in a study showing that finance related functions in TMT will increase the likelihood of acquisitions (Finkelstein, 1992).

There are several distinct ways to classify group of functions, especially at TMT level. By using the division suggested in the upper-echelons original paper, it is possible to divide functions between "output" and "throughput" (Hambrick & Mason, 1984). According to Hambrick and Mason (1984), output functions are those related to the company's growth opportunity, how to reach customers through products, and the decision of how to compete in the market. Output functions encompass tasks related mainly to products and markets, especially trying to ensure a stable client base, to create new products, while trying also to keep the old ones (Hambrick, 1981; Miles, Snow, Meyer, & Coleman, 1978). Throughput functions, instead, are fundamental to run the business, to organize the financing activities, and to ensure efficiency (Hambrick & Mason, 1984). In Hambrick and Mason (1984) paper, they encompass both the production and efficient distribution of products, as well as the administrative and coordination of the various firms' activities (Miles *et al.*, 1978).

Thinking about output and throughput distinctions, it is possible to consider them as front or back-end functions. In fact, Guadalupe and colleagues (2013) recognized the main distinction lying between functions closer to final products as front-end and those far from the final product as back-end. As a matter of fact, output functions are really those related to the product the companies are delivering to their customers, while throughput functions encompass the process of product creation (Guadalupe *et al.*, 2013).

Thinking about this distinction among functions, they really drive different performance dimensions of the company. Output functions are proximal to external customers and, consequently, behave like customer-oriented (Liao & Subramony, 2008). Therefore, they will sustain firm's performance by enhancing product and how it is channeled to consumers

(Marquis & Lee, 2013). The more the product is appreciated and the better is placed in the market, the more the company is performing well in terms of product-related performance. However, output functions may not work in terms of efficiency, operations, and administrative superior performance like back-end functions. Therefore, they do not contribute to financial and general business activities. For example, past research suggested that CMO (Chief Marketing Officer) is a pivotal figure when the company is particularly focused on performance goals of selling, marketing and innovativeness (Nath & Mahajan, 2008).

In contrast, we can expect that throughput functions concern with the internal organization and how inputs are effectively turn into outputs, enhancing company's financial returns. Scholars found that if innovation is considered as developing better internal structures and systems, throughput functions are pivotal to achieve such innovation (Heyden, Sidhu, & Volberda, 2018). Actually, Heyden and colleagues (2018) highlight how having a TMT with strong relevance of throughput functions increase the management innovation of the company. Therefore, it is plausible to expect that this kind of functions are more focused on fostering overall profitability by focusing on the general business activities ensuring positive financial results, rather than centering the activities on the final product. This implies that throughput functional TMT members influence more the overall financial results of the firm, rather than the product that the company is delivering. For example, studies showed that CFO is in charge of companies' financial results, especially the reporting activities and costs that the company incurs to run the business (Geiger & North, 2006; Gore, Matsunaga, & Yeung, 2011). His/her role is not directly tied to the creation of new products, their design, and advertising campaign, but more on the cost and profitability impact of those activities. Therefore, CFO has higher influence on the company's financial activities, meaning business and efficiency dimension of the firm's performance.

In a nutshell, according to the specific functions and the specific functional TMT executive, some performance dimensions, rather than other dimensions are more (or less) impacted. In follows that:

H1: Top executives in charge of output functions (vs. throughput functions) influence product-related performance (vs. financial-related performance)

The moderating role of TMT experience: depth and breadth

"*The influence of top executives on their organizations is often assumed to be a product of their life experiences, as reflected in their demographic characteristics*" (Carpenter & Fredrickson, 2001: 533). Even if I considered before functional roles and experience as overlapping, it is fundamental to disentangle the two concepts (Ferguson *et al.*, 2016). Functional experience is related to the skills and abilities acquired in one particular function – output or throughput –, whereas role is a coordination mechanisms that encompass a set of task and responsibilities of the executive. Even if, due to bounded rationality and selective perception current top executives' roles affect their relation to a specific dimension of performance, functional experience enhances that relationship. This means that, by considering experience as a proxy of knowledge acquired in particular areas (Sambharya, 1996), it is possible to think that depth in experience in output functions is linked to a greater impact on product-related performance. The same reasoning applies to throughput functions and financial-related performance.

This is because, firstly, research showed that "*functional background experiences shape a person's world view and that people carry their prior experiences with them across organizational settings*" (Beckman & Burton, 2008: 5). The functional training received shape the cognitive and mental models of individuals and TMT members bring their established ideas and routines, based on their functional experience, even in a new company (Beckman & Burton, 2008). This means, for example, that the deeper the experience in output functions, the more the executive develop reasoning and mental scheme related to that function, thus sustaining mainly objectives and goals of that function. The latter, in turns, enhances even more the related performance dimension.

Moreover, depth of experience implies that the longer the executives are working in output or throughput functions, the more they develop knowledge that is specific to a business area (Godart, Maddux, Shipilov, & Galinsky, 2015). If executives acquire functional specific knowledge, they stick to that expertise when they deal with daily activities, decision-making, and problem solving. Functional fixedness theory, in fact, suggests that people generally stick to their previous experience and conventional thinking (Duncker 1945), meaning that people trained in one functional area use the related mindset while working. This implies that they will be always biased toward a specific functions, therefore a specific set of firm's goals and objectives, making them able to influence more some performance dimensions rather than others. Therefore, I expect that the deeper the output function (throughput function) experience the more the executive will enhance the product-related performance (financial-related performance).

In addition, when current functional role is not matching the previous experience, this may create some issue in terms of role legitimacy (Higgins & Gulati, 2006). Basically, when functional background matches the current role in the company, this creates more legitimacy, more credibility, allowing executives to attract more resources for his/her function, thus enhancing performance in relation to the business area where there is executives' experience/role matching (Higgins & Gulati, 2006; Zhang & Wiersema, 2009). Of course, in case of misfit, this may signal potential issues and inabilities related to that functional area of the company, thus lowering the possibility to attract resources available for that area of business (Ferguson *et al.*, 2016). In addition, when matching exists, executives are assumed to be more prepared, more able to handle the problems and, consequently, more successful in achieving superior performance in relation to the functional area. Therefore, depth of experience is assumed to be fundamental in order to enhance the relationship among output and throughput functions and related performance dimensions.

Given that functional background is related to higher performance (Boone & Hendriks, 2009), I expect that depth in experience in output (throughput) function enhances the relationship between functional TMT members and multiple companies dimensions. This is because the longer the experience in one functions, the more knowledge is acquired by executives and the more the TMT member is reasoning following functional rules and objectives. In addition depth of experience in one function is a signal of the credibility and legitimacy of the executives in the current role, thus enhancing the resources available to pursue activities related to TMT member's function.

In line with that reasoning, I argue that:

H2a: The relationship between top executives in charge of output functions and product-related performance is positively moderated by depth of executives' experience in output functions.

H2b: The relationship between top executives in charge of throughput functions and financial-related performance is positively moderated by depth of executives' experience in throughput functions.

Not only depth of experience matters in terms of performance. Breadth of experience, meaning, in this setting, the variety of firms in which the executives has performed similar function, is fundamental to effectively pursue company's goals and objectives. "*Breadth involves exposure to a variety of inputs*"(Godart *et al.*, 2015: 199). Actually, if TMT member worked for multiple organizations, we can expect that he or she developed multiple approaches to deal with the same daily activities related to his/her function. Consequently, this enhances the performance of his/her functional area.

"*Merriam-Webster defines breadth as "the quality of including many things; the wide scope or range of something" and experience as the "direct observation of or participation in events as a basis of knowledge*" (Mannor, Matta, Block, Steinbach, & Davis, 2019: 1544). This implies that the more the executives worked into various companies, the more he or she developed observations of different pathways to solve problems and different mental models applied to run their functions. This exposure to different companies' environment enhances TMT members' skills and abilities. This is fundamental to boost companies' performance because executives develop insightful knowledge of how to successful achieve goals and objectives related to their tasks and responsibilities.

Executives working in multiple companies benefit from diverse perspectives of the job, more cognitive flexibility, and ability to deal with unexpected issues (Mannucci & Yong, 2018). Given that experience is a proxy of knowledge (Sambharya, 1996), "*knowledge breadth increases the flexibility of knowledge structures by exposing individuals to new domains and thus stimulating the creation of new linkages between domains and schemas*" (Mannucci & Yong, 2018: 1744). This foster executives' abilities of effectively pursuing their tasks and responsibilities, meaning that each TMT member is able to achieve successful outcomes in relation to their objectives and goals. This implies that breadth of experience, meaning more companies' exposure, increases the effect of top executive's efficacy on performance dimensions associated.

Furthermore, executives who worked for different companies are less likely to be narrow-minded and parochial in their activities, because they saw multiple environment and many aspects related to their functions, therefore, they are better equipped to effectively run their business area (Cannella *et al.*, 2008).

Given that experience and roles are distinct constructs, their interplay is fundamental. This means that TMT functional roles' performance on companies' related dimensions is effectively sustained and improved in a situation where top executives learn the most out of the experiences done in several different contexts. This allows them to be more prepared to deal with unforeseen situations, as well as more flexible in their cognitive abilities and more knowledgeable among differences that may emerge in a particular business area. Therefore, experience breath positively moderates the relationship between TMT functions and performance dimensions. It follows that:

H3a: The relationship between top executives in charge of output functions and product-related performance is positively moderated by breadth of executives' experience in output functions.

H3b: The relationship between top executives in charge of throughput functions and financial-related performance is positively moderated by breadth of executives' experience in throughput functions.

EMPIRICAL CONTEXT: HIGH-END FASHION INDUSTRY

High-end fashion industry is a suitable environment to study functional TMT members and organizational multiple dimensions of performance, especially in relation to product and general financial results.

First of all, fashion companies meet the definition of complex organizations. This is because they are part of the broader group of creative organizations – those firms whose core activity strongly depends on the conceiving, developing, and distributing artifacts, products, and experiences full of originality and novelty (Jones, Svejenova, & Strandgaard, 2011). Creative organizations are "pioneers in innovation", because these firms build their competitive advantage on distinctiveness based on creativity and novelty (Wu & Wu, 2016). However, creative organizations face a paradox in running their business (e.g.: DeFilippi, Grabher, & Jones, 2007). They need to boost creativity, but they need to ensure financial sustainability to survive (e.g.: Reid & Karambayya, 2009). This is true in Hollywood filmmaking industry (Baker & Faulkner, 1991), in performing art industry (Reid & Karambayya, 2009), in orchestras (Glynn, 2000), and even in TV series (Clement, Shipilov, & Galunic, 2018). Whether you call it paradox (DeFilippi *et al.*, 2007) or dilemma (Lampel, Lant, & Shamsie, 2000), these companies need to find a good trade-off among business and artistic performance dimensions. Unfortunately, financial and creative goals are often conflicting. This means that, in order to sustain superior performance and achieve success, creative organizations need to always create something novel, but at the same time they have to care about financial and economic performance dimension (Alvarez, Mazza, Pedersen, & Svejenova, 2005). Creative organizations meet, therefore, the definition of complex organizations and performance is a clear multidimensional constructs in this setting.

As creative organizations, fashion companies should boost their creative performance embedded in their novel products, as well as they need to ensure that their products are commercially successful to guarantee financial sustainability and prosperity. This implies that both product and financial dimensions are pivotal to achieve overall superior performance.

When dealing with product dimension, fashion companies' core business stems from the creation of always-new collections, meaning a selection of outfits – garments and accessories – combined in novel and different ways (Crane & Bovone, 2006). Product innovativeness is of paramount importance in this setting (Cillo, DeLuca, & Troilo, 2010) and, not only it is mandatory for firms, but it is also required in particular periods of the year (fashion shows) when companies are showing to the public the main looks – garments and accessories – designed by their company creative teams (Cappetta, Cillo, & Ponti, 2006). At the same time, the product novelty is fundamental, but garments are just clothes and not "fashion items" until they are accepted by customers and positively evaluated by the interested audience (Aspers & Godart, 2013). This is because consumption of collections' pieces implies not only buying some clothes, but fashion garments are really encompassing "meanings" and values (Crane & Bovone, 2006). "*Consumers increasingly make brand choices on the basis of the aesthetic and symbolic value of products and services"* (Cappetta *et al.*, 2006, p. 1274). This is why marketing and communication are pivotal also to convey not only the novelty, but also the all values and ideas behind the product (Godart & Mears, 2009). This means that, for these companies, those functions related to the product (called before output functions) are strictly related to creative designs, as well as how the product is advertised, communicated, and channeled to customers.

We can expect, therefore, that output functions in fashion companies encompass primarily who is charge of the creative process, meaning the creative director (also called Head of Design or Chief Creative Officer). He is the real head of all the innovative process of inventing and assembling the sets of garments and accessories (Bourdieu & Delsaut, 1975; Godart, Shipilov, & Claes, 2013). At the same time, communication and marketing are fundamental to deliver the values and the meanings associated to the fashion products, therefore, they play a fundamental role in externally communicate the creative products (Fionda & Moore, 2009). The top executives leading this process are, instead, the CMO (sometimes labeled Executive Vice President Marketing or EVP Marketing or Head of

Marketing) and the Chief Communication Officer (also called EVP Communications). This mix of novelty of the product, as well as value and meanings are generally channeled to customers through a “complete shopping experience”. In fashion industry, how the product is delivered and sold in the market is pivotal for its success (Brun & Castelli, 2008; Fionda & Moore, 2009). This is strictly linked to the role of Merchandising and Retail in fashion companies. Merchandising is in charge of studying the right products and trends because it is responsible of the stocks of merchandise customers will find in stores and, therefore, buy. Merchandising is, indeed, closely link to customers’ tastes and market trends. Lastly, retail activity is fundamental to ensure that customers not only by garments, but also have a luxury shopping experience while buying the product. The idea of grouping output functions entailing creative, marketing and communication, merchandising and sales, is in line with the definition of front-end functions developed by Guadalupe and colleagues (2013). The really stressed the idea that this functions are closed to the final products and final customers. It follows that, from their roles, this TMT members are linked to product-related performance.

If the products and consumption are critical in fashion industry, collections’ productions, as well as operations and financial strategies are another essential area to sustain competitive advantage (Brun & Castelli, 2008). As said, fashion companies need to boost the general financial performance dimension to ensure enough economic returns to keep up the business. First, customers expect high quality from garments and accessories (Hilton, Choi, & Chen, 2004). Therefore, it is essential to develop and monitor how the product is crafted. This is under the responsibility of who is in charge of the operations and products efficiencies, mainly the COO. Secondly, financial performance dimension is linked to CEO and CFO, who are in charge of the business activities of companies, because in order to afford fashion shows and high quality production, fashion firms require substantial funds and strategic investments direction in order to grow and prosper (Karra, 2008). Fashion companies often struggle with the economic means essential to afford the production of sophisticated garments and fundamental to finance all the catwalks.

To sum up, high-end fashion companies achieve successful results if they manage to enhance both their product and their financial performance dimensions. They can assign goals and objectives related to product to top executives like Creative Directors, CMO, Chief Communication officer, Chief Merchandising Officer (also called EVP Merchandising or Head of Merchandising) and Head of Retail (also labeled EVP Retail, EVP Sales or Head of Retail or Sales). In contrast, we can expect that production, distribution, financial and administrative functions are fundamental to ensure financial and business related performance. The executives in charge of this financial area are mainly COO, CFO, and CEO. Figure 1 shows the performance dimensions and the functional roles in relation to the two different firms' objective in this setting.

Insert Figure 1 about here

DATA & METHODS

Data

Fashion industry companies are characterized by a pecking order (Cappetta *et al.*, 2006). The highest level is the so called "alta moda" or "haute couture", meaning those unique products (one-of designs), sophisticated, and custom-made. Then, prêt-à-porter or ready-to-wear constitutes those quite expensive products sold in fashion stores (Davis, 1992). And then, there is fast fashion whose core business is selling fashionable clothes at affordable prices (Caro & Martínez-de-Albéniz, 2015). The latter is out of the scope of this paper because fast fashion does not constitute high-end fashion industry. The choice is to focus, instead, on ready-to-wear (RTW) collections, especially women's RTW (WRTW). The reason is because WRTW constitutes the most important products in terms of both novelty and commercial success for the company. Basically, fashion companies' survival highly depends on WRTW success (Seong & Godart, 2018). As said, these collections are fundamental because they set the trends and encompass the most innovative outfits, but at the same time are the products to be sold in order to sustain the business. These collections are presented twice a year: Fall/Winter fashion shows in the first semester and Spring/Summer fashion shows in the second half of the year. In about 20 minutes of a catwalk show, fashion companies present to the public the main outfits that will be subsequently sold in their stores (Godart & Mears, 2009).

In order to test my hypotheses, I build a unique and comprehensive dataset combining distinct sources of information, both available online or on printed magazines. From the combination of four distinct datasets, I obtain a panel covering 363 fashion companies for a period starting in 2009 and ending in 2016. Given that fashion companies present collections twice a year in each semester as highlighted before, my panel is divided in half years constituting a maximum of 16 observations for each fashion company.

The first dataset encompasses a full list of all fashion companies that run the Fall/Winter and Spring/Summer fashion shows. Vogue.com and Vogue.it report all the names of the main fashion companies (together with the outfits) classified according to the season and the type of collections (RTW, haute couture, etc.). Through the use of Python, I download all the names of the companies in the archives of Vogue for WRTW for the two seasons. I use both Italian and international sources to double-check in case some fashion companies were misreported. Once I obtained the list of 1362 fashion companies, I selected only those central to fashion industry, and the criteria applied was checking all those brands that were running the fashion shows consistently, meaning those that organize a catwalk shows every period, or stop for no more than three times (one and a half year). I also included those recently founded brands that were consistently running their fashion shows, even if they were founded later than 2009. This was to prevent to select fashion companies that do not have enough means to invest and prepare a collection. I end up with a dataset of 516 fashion companies.

The second dataset entails a full list of all the information related to fashion companies. From corporate websites, Orbis, accredited newspapers, magazines, and specialized fashion online sources – i.e. Business of Fashion and The Fashion Model Directory – I downloaded all the companies' financial information, corporate available information (e.g. the founder of the company, the age of the firm, etc.) and principal data on fashion collections (e.g. how many designer were in charge of designing it, etc.). In addition, I downloaded from Vogue, Factiva, LinkedIn, and corporate websites, all the information related to each collection's Creative Director and if the company has a CEO. This is because it would have been impossible to retrieve information on functional TMT for companies that do not even communicate the presence of a CEO or how the company is basically structured at the top of the hierarchy. Excluding all those brands that do not provide any information about the company (some brands do not even display a corporate website), or about creative directors and CEOs, I ended up with a dataset of 363 fashion companies for the period analyzed.

The third dataset encompasses all the information on functional TMT. Since a large part of fashion firms are private, it is really challenging to find organizational charts. In order to get the information of top executives in charge of various business functions, I exploited a specialized Italian magazine: PambiancoNews. It is the most authoritative and diffuse magazine specialized in fashion and luxury in Italy. It was founded in 2001 and, as of today, it has more than 70.000 subscriptions. This magazine dedicates a particular section on all the individuals' mobility within fashion and luxury, called "Giro poltrone". By reading all the around 2000 articles published in that section of the online magazine, I manually download all the individual names and related employees appeared during the searches. Once I get the list of all employees' names, I search and rebuild their career path, though the use of LinkedIn, Factiva, and online sources. I ended up tracing down the career and companies roles of 1729 people working in fashion industry.

The last dataset is related to performances. Information is retrieved from *Journal du Textile* (Godart *et al.*, 2013) and Orbis. In order to get Orbis information for the company, I search for all the corporate websites to get the exact company names and information on their incorporation. Then, I matched the companies with the Orbis BvD number, in order to download all the possible financial data available for those companies.

The final comprehensive dataset is a cross-reference of all the information about companies and collections, the related performance measures, merged with all the data on functional top executives. The names of functional TMT members are assigned to their respective companies base on the career path dataset. I end up with 363 fashion companies with information on CEOs and Creative Directors, of which 154 with functional TMT tracked for the period analyzed.

Empirical Strategy

In order to test my hypotheses, I need to disentangle how individual functional TMT affects different performance dimensions. Past research primarily used variance decomposition analysis and fixed effects, especially when investigating the CEO and TMT effect on the company outcomes (Blettner *et al.*, 2012). However, drawbacks of these methods are primarily: (1) the fact that they do not take into account the stochastic nature of firm performance that biases the interpretation of CEO's effect; (2) the fact that it is difficult to tease out the executive effect from the specific time and firm is associated to; (3) there are a lot of interactions linked to the executive effects (Blettner *et al.*, 2012). Furthermore, the majority of published papers look at single top executives or at the whole TMT characteristics. I look at single functional top executive who can jointly work within the company, and the effects that they have on product and financial-related dimensions. This is challenging because I need to both isolate single individual contributions, as well as drawing boundaries among performance dimensions. My empirically strategy to tease out functional executives impact is to exploit the event of functional TMT mobility. Basically, in order to assess the impact of each single top executive on firm's performance, I check if the company's performance dimensions were influenced when those functional heads were moving out of the company. This is in line with the idea that the quality and value of human capital can be seen in the moment in which the organization is experiencing a loss of that individual (Fulmer & Ployhart, 2014; Nyberg, Moliterno, Hale, & Lepak, 2012).

However, my sample is subject to self-selection bias, as well as other endogeneity issues. Firstly, news from Pambianco may not be completely random, because they are subject to journalists' information availability and the characteristics of the fashion companies. I expect more coverage if the company is listed, or it is a large, historical, and notorious. Therefore, I correct for nonrandom sample bias, by exploiting Heckman selection model (Heckman, 1979). In the first step of this model, I estimate the inverse Mills ratio in order to correct the sample in the second step (Wolfolds & Siegel, 2019). I correct for the main drivers of why some people information are reported in PambiancoNews, while some others not, by computing the probit model of why there can be information about some fashion companies, rather than other.

In addition, my sample is suffering from endogeneity for two main reasons. By using mobility as independent variable to capture the value of functional executives, my analysis suffers from omitted factor biases (Hamilton & Nickerson, 2003). One, in particular, is related to the reason why the top executives are moving out of the firm. This mobility "shock" is not always exogenous but may be endogenous. Moreover, the model is suffering for reverse causality that influences my results (Wooldridge, 2009). Actually, in order to assess functional top executives impact on firms' performance dimensions, I employ their mobility. However, mobility can happen because of prior performance results. Therefore, it can be that past performance is driving mobility.

In order to deal with endogeneity, I use two-stage instrumental variable technique (Wooldridge, 2009). However, in this setting I have multiple possible endogenous regressors, because I account for mobility of each single member of the TMT. In this case, it is possible to use as instrument the lagged dependent variable (in my case past performance), as suggested by Clement and colleagues (2017). However, introducing in the model an instrument with lagged dependent variable turns out to be a poor instrument because it is correlated with the error term (Baltagi, 2008). To avoid this problem I use the Arellano-Bover/Blundell-Bond, which allows for errors to be first-order serially correlated (Arellano and Bond, 1991; Arellano and Bover, 1995; Blundell and Bond, 1998).

Variables

Dependent variable

In this study, there are two different measures of performance, related to product and to financial dimension. The measure employed for product-related performance is labeled *Buyers' Ratings*. This measure refers to buyers' ratings published in *Journal du Texile* (*JdT*) (Godart *et al.*, 2015; Godart *et al.*, 2014). At the end of every season, this magazine publishes the evaluation of collections given by industrial buyers. *JdT* asks to a number of buyers (from 65 to 67 for the period analyzed) to rank the most creative and better collection for each season (from 1 to 20, where 1 is the most preferred). Points are assigned in accordance to each position of the rank. Each brand's final score is given by the sum of all the points received. Fashion companies may receive 0 points in case there were not considered by any buyers, therefore, out of the ratings. Given the different number of buyers among seasons, I average fashion house final score by the number of buyers for the respective season (Seong & Godart, 2018). This measure is suitable for this study because my primarily interest is capturing the product dimension of performance. Buyers are a qualified jury that rates the collections after each fashion show, meaning that they are evaluating the main products of the company (Godart *et al.*, 2015). Their judgment encompasses both the novelty of the outfits, as well as the related ability to sell them in the market. Buyers' role, in fact, entails buying collections' pieces to place them in stores. Therefore, in their rankings, they express their opinion on those collections whose products entail creativity, innovativeness, as well as customers' final appreciation. Buyers' career, in fact, is based on the ability to buy those garments that most accurately will meet customers' demands. In addition, buyers' evaluations are made after fashion shows, after all the values and messages associated to the collections are delivered (Godart *et al.*, 2014).

The second measure is related to the financial dimension. One of the most important measures of fashion companies' economic return is revenue. Fashion companies' novelty in the product is not enough to ensure organizations' success. Firms should sell enough garments and accessories to ensure that fashion houses own enough means to continue to innovate. If the company is producing high quality products, it is efficient in its operations, it is strategically and financially good, we can expect large return in terms of revenues generated. From Orbis, I download *Operating Revenues* variable for the available companies on a yearly base.

Given that both variables' distributions are highly skewed, I normalized both *Buyers' Ratings* and *Operating Revenues* by log transform them.

Independent variable

For each functional top executive, for the period analyzed I matched names with companies where they were working into. For each period I account for the mobility of functional TMT members with a dummy equal to 1 when the executive was changing company or role and 0 otherwise. Therefore, I label *Creative Director Change* the dummy equal to 1 when the head designer was moving out of the company. The same reasoning was applied to the following variables: *CEO Change*, *CFO Change*, *COO Change* (encompassing all those roles labeled EVP of operations), *Chief Merchandising Officer Change*, *Head of Retail Change*, *CMO Change* and *Chief Communications Officer Change*. Unfortunately, for Human Resources, I had too few observations to include these people in the analysis.

Heckman first-stage variables

I recognize some important variables affecting the probability of finding articles in Pambianco magazine on executives' mobility (*Pambianco News Coverage* – my dependent variable in the probit first stage model). First of all, being PambiancoNews an Italian source of data, it is possible to expect to find more information about companies located in Italy or neighboring countries. In addition, past research suggested that there are four fashion capitals that attract all the attention of magazine and press (Godart, 2014). Geography matters a lot on the media coverage of fashion brand. Therefore, I downloaded from Orbis the country where fashion companies conduct the major operations and where they are incorporated. I added a dummy for each country in the probit model.

Furthermore, given that the interest is on variables explaining the probability of finding articles in Pambianco, I added as regressors the brand media coverage and the designer media coverage in the previous year (labeled respectively *Fashion Company Media* $Coverage_{t-1}$ and *Creative Director Media* $Coverage_{t-1}$). These variables represent, respectively, the count of Factiva articles related to the brand and to the creative director of the company. The Factiva filters encompass all the languages, all the outlets, without duplicates. Given the high skewness of the variables, I log transform them. This measure is recognized as fundamental proxy for external visibility of the company (Godart *et al.*, 2014).

In addition, I add as independent variables in the model also *Ownership* – a dummy equal to 1 in case the fashion company is publicly listed and 0 otherwise. I would expect more articles for the public companies, because of their mandatory disclosure data. Moreover, I add a variable labeled *Founder = CEO = Creative Director*, which is a dummy equal to 1 in case there is no difference among owners and the two major roles in the company. I expect that such concentrated ownership will affect the number of executives and their mobility. Last variable in the model is the *Fashion Company Age*, which is a continuous variable accounting for the companies' years of operations. It is logged given the high skewness. It is possible to expect that journalists can be more familiar with old companies, as well as the fact that if those fashion houses survive and prosper for long time, this signal more structure in their activities, meaning more functional TMT members increasing the chances to find information of them.

Moderators

Depth of experience is measured as the number of years executives worked in output or throughput functions. "*Executives were considered to have experience in these areas if they had titles that included these functions*" (Ferguson *et al.*, 2016: 1436). Therefore, I code *Depth in Output Functions* as the number of years the TMT member has experience in that function and *Depth in Throughput Functions* as the number of years spend in the other group of functions.

For breadth, I count the number of companies TMT members where covering roles of output or throughput functions. I labeled them, respectively, *Breadth in Output Functions* and *Breadth in Throughput Functions*.

Control Variables

I added control variables that may affect performance in fashion companies and may be important in this setting. First of all, I control for companies belonging to *Fashion*

Conglomerates like Kering or LVMH, with a dummy equal to 1 in case the companies belong to a multibrand group. Past research suggest the impact on performance if fashion companies belongs to group, because this gives higher visibility, help in terms of financial possibilities, all affecting final performance outcomes (Rawley, Godart, & Shipilov, 2017). Moreover, past research suggested how important are names of fashion companies on their performance (Seong & Godart, 2018). Therefore, I control for *Eponymous* brands, meaning a dummy equal to 1 in case fashion companies are labeled exacly as the Creative Director name. In addition, cultural distance between Creative Director home country and company's country is affecting performance (Godart *et al.*, 2015). In line with past findings, I calculate the Kandogan cultural distance as an improvement of Kogut and Singh (1988) method (Kandogan, 2012). This variable is an aggregated measure of country cultural distance based on Hofstede's dimensions, mainly power distance index (PDI), individualism vs. collectivism (IDV), uncertainty avoidance (UAI), masculinity vs. femininity (MAS) (Hofstede, 1980; Hofstede, Hofstede, & Minkov, 2010). For this dimensions, each country gets a score and I took the difference among the score of the country of the creative director and that of the company. The variable labeled *Cultural Distance* was highly skewed, therefore I took the logarithmic transformation.

Furthermore, Council of Fashion Designers of America and the British Fashion Council prized every year Fashion Brands, Creative Director and CEO for their contribution and outstanding performance results (Godart & Galunic, 2019). This variables is affecting fashion houses performance, therefore, I added *Creative Directors Awards*$_{t-1}$ and *Fashion Company Awards*$_{t-1}$ to control for that. I excluded CEO awards because in the whole period 2009-2016 only 6 CEOs were awarded. Those variables were log transformed to address their skewed distribution. Moreover, fashion houses have different RTW lines, especially a diffusion line to reach younger customers with more affordable prices. Given the high number of possible lines and capsule collections, I control for those diffusion lines recorded in Vogue.com and Vogue.it archives with a dummy (labeled *Diffusion Line*) equal to 1 in case a collection for such lines was recorded in the Internet site. In line with Seong and Godart (2018) this additional lines may influence and confound the effect on performance of the main collection. From Godart and colleagues paper (2013), we know that designers working for multiple companies can benefit from the information and diverse environment, fundamental to increase fashion house success. Therefore, I control for fashion companies whose creative director is simultaneously working in multiple environments as seed for its creative performance and subsequent sales for the company. This dummy variable label *Creative Director Multiple Collection* is coded 1 in case the Creative director is working for two distinct companies at the same time.

In addition, Creative directors may not be solo but part of a team and that influences performance (Godart *et al*, 2015). Therefore, I control for the *Team of Creative Director*. Furthermore, age of the creative director, as well as company' tenure (meaning the number of years working within the company) for both creative directors and CEOs may be fundamental variables affecting performance, as shown in multiple research on fashion companies, especially in relation to creativity (Godart *et al*, 2015). Creative Director Age is often critical for creativity, as well as the longer tenure in the same place. The variables are labeled *Creative Director Age*, *Creative Director Tenure* (logged to correct for skewness), and *CEO Tenure* (logged to correct for skewness).

Since the model links employees' mobility to performance, I add some macroeconomic variables related to the labor market. I download data from OECD database and I associated each semester variables to company's country. I labeled *Employment Rate* the variable of the short-term labor market statistics, meaning the active population minus the unemployed population and *Labor Market Insecurity* as the expected earnings loss associated with unemployment for the specific country in a specific year. This loss depends on the risk of becoming unemployed, the expected duration of unemployment and the degree of migration against the losses provided by government transfers to the unemployed.

PRELIMINARY RESULTS

Insert Table 1 about here

Table 1 shows the Pearson correlation and main descriptive statistics. Even if correlations are generally low, there are some variables highly correlated that can cause potential problems of multicollinearity. One example is *Fashion Company Media Coverage*$_{t-1}$, which is highly positive correlated with *Creative Director Media Coverage* $_{t-1}$. This is true because several fashion companies' names are the same of their creative directors, a variable I accounted for (i.e. *Eponymous*). I check, in order to avoid problems of multicollinearity, the Variance Inflation Factor (VIF), which is generally expected to be lower than 10 (Diamantopoulos & Winklhofer, 2001). In the data, there are no variables with a VIF higher then 4 (except those omitted for multicollinearity in Table 2).

Insert Table 2 about here

Table 2 displays the results of first stage Heckman model. Basically, model 1 is the probit, trying to model the probability of finding information about executives in the Pambianco online magazine (Pambianco News Coverage). All the variables included provide some important effects on the dependent variable. Inverse Mills Ratio is calculated and the variable is added in AB/BB model displayed in Table 3.

Insert Table 3 about here

Model 2 and 3 show accordingly the effect of TMT mobility on product-related performance and on financial-related performance. In order to interpret the results of Model 2 and 3, it is fundamental to recall the aim of the study. My primarily focus is on executives influencing some performance dimensions rather then other. Therefore, to find support to Hypothesis 1, I need to look at the economic value and significance of the coefficients. In fact, H1 is overall supported by my results. By looking at the creative director, when is leaving the company, only product-related performance is affected, meaning that the impact is primarily on the product dimension. In addition, if CEO or CFO are considered, they influence the financial measure of performance and not significantly the product performance.

Looking more deeply at output functions, when a fashion company is changing its creative director or CMO, it suffers a decrease in buyers' ratings, signaling the effect that these two executives had on product-related performance. This means that the company was benefiting from these two TMT members in achieving superior product performance and, losing them, is negatively impacting buyers' ratings. Changing a CMO has also some impact on operating revenues but only with a $p\text{-value}<0.1$. Interestingly, instead, is the result on Chief Communications Officer. This executive has a pivotal influence on both performance dimensions. This result is driven primarily by the dependent variables' chosen in the models, as well as the empirical setting. It makes sense that communication is a blurred function. It encompasses both the product, as well as how the product is channeled to customers. In fashion industry, given that collections become old in less then one or two seasons, it is of paramount importance how the fashion shows' outfits are communicated (the "meanings" encompassed by garments) – the product side – as well as how the critics and press acknowledge the “fashion” behind clothes (Davis, 1992). Communication, therefore, is of paramount importance for the novelty of the products as well as for selling, by reaching customers. This is underlined in Business of Fashion case study of Gucci, published in 2019, where communication was at the heart of product success as well as Gucci incredible ability to foster sales. Moreover, communication can also be grouped as internal communication, therefore linked to throughput functions (Guadalupe *et al.*, 2013). Unfortunately, I cannot distinguish among internal vs. external communication.

As far as throughput functions are concerned, CEO and CFO are clearly linked to financial performance (and not highly significant on buyers’ ratings). Their change has a substantial negative impact on operating revenues, which signal that companies were benefiting from their abilities and skills related to that dimension of the company performance.

Results are, instead, more challenging for COO, Chief Merchandising Officer, and Head of Retail. In order to assess how they impact different performance dimensions, it is fundamental to also look at the sign of the coefficients. The main reasoning is that when change of an executive is negative and significant, this means that his/her contribution is such important that replacement can disrupt firm’s daily activities and routines, at least for the initial period. In contrast, if the change is positive, it can indicate that their effect was on average negative on that performance dimensions, such that changing may produce some benefits. Therefore, we can think of COO expertise and skills influencing financial performance, even if p-value<0.1. At the same time, his/her competences may be not really related to the innovativeness and market performance of the products, because changing COO may be on average positive, increasing buyers’ ratings. COO efficiency driven focus may be somehow contrasting the quest for novelty and uniqueness of clothes. Therefore, when COO is changing, product dimension is benefiting from that.

Concerning merchandising, the Chief Merchandising Officer has an effect on product-performance (buyers' ratings), with a negative sign. At the same time, his/her change also positively affects operating revenues. The impact on both dimensions can be driven by the fact that merchandising interfaces both the product side as well as the retail side. Recalling this function's description, it make sense that merchandising is so important for the product's trends, that changing him/her is problematic for the company's product performance. At the same time, Chief Merchandising Officer is the one enabling the commercial success of a product, because he/she works with the creative director to assess the main trends that customers like. However, it looks like changing this executive is good for operating revenues. This can be linked to what suggested by Cappetta and colleagues (2004) that you need to have the "right" buyers to drive successful market sales.

Head of Retail, instead, is hard to interpret in this setting. The fact that change of this executives impacts operating revenues is strictly related to the choice of the dependent variable. Changing Head of Retail can be critical for company's revenues, as shown by the model, because of his/her direct impact on that firm's variable. For the product side, instead, change of retail executive is positive, meaning that the quest for selling may not work in the same direction as the search for particular product designs and its marketing. Therefore, changing Head of Retail may not be such a problem on the product side and on the performance related to that, but rather an issue in terms of sales and how the product reach the final customer.

Lastly, it is fundamental to point out a limitation related to Model 3. Actually, in AB/BB model, if the error term can be first-order serially correlated – AR(1) should be significant –, the second-order should not – AR(2) not significant –. Model 3 test shows inconsistent result for the AR(2) test. This challenges my results. However, the test for the goodness of the model is showing strong results, with Hansen test not significant (p-value

0.985). It is also worth to highlight that it is extremely challenging to find data on financials of fashion companies and this explains the large drop in sample size for Model 3. Very few companies report data on operating revenues in Orbis.

Follow-up Analysis

Next steps concern with the moderation effects of experience as well as try to control for lower hierarchical levels of employees. In the dataset of employees' careers, I also have information on senior creative directors as well as other important secondary top managers to add to the analysis. In addition, upper-echelon theory suggests that demographic variables are important for TMT. Therefore, I need to retrieve information on age, tenure, nationality and other attributes to control for in the model.

Moreover, given the "multidimensionality of performance", I need to find more data on profitability and other possible dimensions of performance. Unfortunately, if using Orbis information on ratios (ROE, ROA), my sample reduces to 300 observations.

DISCUSSION AND CONCLUSION

This paper is a deep investigation on functional TMT and organizational performance. Assuming that "*anything that improves the task performance of the top management team should, accordingly, improve firm performance*" (Dezsö & Ross, 2012: 1074), my claim is that in order to understand TMT effect on performance, it is fundamental to disentangle how each functional executive affect multiple dimensions of it. Each executive brings distinct skills and abilities and he/she is responsible to specific areas within the organization. This is why my claim is that different functional top executives are affecting the whole performance, but through their impact on specific performance dimensions. Firms' overall performance – especially in complex organization – is a balance of multiple dimensions all-contributing to company's success and competitive advantage (Schendel & Patton, 1978). By analyzing fashion industry, I deeply investigate and find evidence that distinct top executives affect differently product and business/efficiency performance dimensions, in line with product novelty and the economic goals that creative organizations have to enhance in order to survive and prosper (Clement *et al.*, 2018; DeFilippi *et al.*, 2007; Reid & Karambayya, 2009).

Especially, I found that output organizational functions – those related to the market and product (Hambrick & Mason, 1984)– are impacting more the product-related performance. Actually, creative director and CMO have a clear role on how the product is conceived and advertised to compete in the market. They affect performance by boosting the product innovativeness and its appreciation in the market. At the same time, more throughput functions – those related to efficiency, operations and administration (Hambrick & Mason, 1984)– are linked to financial performance dimension. As a matter of fact, results show that CEO and CFO are fundamental to enhance the business activities, ensuring high level of operating revenues to the company.

An intriguing insight of this paper is related to the fact that not only different functional top executives affect different performance dimensions, but also they may impact them differently. One of the main results, is that while there are executives, whose roles are blurred and are actually contributing to multiple companies objectives (like the case of Chief Communication Officer), there are other TMT members who have an effect on one performance dimension and a total opposite impact on the other dimensions. This is in line with the topic of multidimensionality of performance (Venkatraman & Ramanujam, 1986). It is possible to expect that a COO is more operationally driven and less focused on product sophistication. Therefore, his/her quest for efficiency can be somehow in conflict with the novelty and uniqueness of the product. To be successful, firms need to balance performance dimensions and people in charge of them. Therefore, when investigating firm's overall performance, researcher and practitioners should both take care about the multidimensionality of it and who is responsible for which area. If, instead, Chief Merchandising officer is analyzed, it is possible to think that some functions interface among different business areas. This implies that executives in charge of those functions, by bridging among multiple companies' objectives, can affect differently various companies' dimensions. Merchandising, in fact, cares about product and works closely with the creative teams, but it also needs to ensure that customers like the products, thus affecting financial measures, especially related to commercial success.

This paper contribute especially to shed light on the fact that in order to understand company's performance, it is fundamental to assess the components that contribute to that. And if we want to know the human capital associated to that performance, it is pivotal to disentangle who is actually influencing each performance dimension. In addition, this paper is contributing to upper-echelon theory to underline that all TMT members have a role and organization is the reflection of its executives because each of them uniquely contribute to their functional areas (Hambrick & Mason, 1984).

Moreover, functional TMT past research suggested inconclusive results on the relation between TMT and performance (Menz, 2012). I challenge that this non-results are the consequence of overlooking the idea that each top executives somehow stick to his/her functional area (Dearborn & Simon, 1958). This means that, in order to assess their influence on firm's outcomes, researcher should analyze which performance dimensions' they are actually influencing. By doing that, this paper shows that there are executives that only affect some dimensions of performance, and other that affect performance in a contradictory way. They may enhance one dimension at the detriment of another area. This is why we can see differences in how TMT affect overall performance. In addition, companies should be aware of who is affecting which dimension of performance to strategize and to balance conflicting forces within the organization. This is why this paper also conveys important practical implications: firm should be aware of who is in charge and leads distinct areas in order to find a good balance among performance dimensions to compete and succeed in the market.

Building on past research, TMT members' current roles are not always matching the functional experience they own (Ferguson *et al.*, 2016; Higgins & Gulati, 2006). In order to disentangle how functional background matters for the ability to influence more some dimensions of performance, I argued that depth and breadth are two fundamental moderators. Year of experience in a particular group of functions and breadth of experience in multiple companies are both moderators explaining why TMT members stick to their functions and the related dimension of performance. Empirical analysis is still ongoing and available in a future version of the paper.

Furthermore, this paper confirms the main insights from human capital literature: people matters in the organization (Coff, 1997). However, this paper underlines that not just the CEO is fundamental to firm's achievements but we need to be aware of all valuable employees the companies can exploit to gain success (Mawdsley & Somaya, 2016). All the TMT members are valuable resources to the firm, if analyzed considering their expertise and their area of contribution (Hambrick *et al.*, 1996).

Last but not least, my study suggested a new way to infer the TMT effect. Rather than using variance decomposition analysis and fixed-effect (Blettner *et al.*, 2012), we can infer the value of individual employees when they leave the company and the firm actually suffers (or benefits) from that loss.

This paper is obviously full of limitations. First, the empirical context is limited to fashion industry. If this context provides a good setting for my study, it is true that there may be challenges in generalizability. Creative Directors are not common to all the organization. What is true, however, is that TMT main members are generally common in companies. Most of them can be divided as well between output and throughput functions. This study opens up to further investigations in several settings especially those identified as capital intensive, where human capital may be pivotal to success.

Furthermore, there are some data limitations. Results are more robust in case of financial reports' availability and possibility to get information on the organizational structure. However, most of fashion companies are private. It would be extremely interesting to conduct studies on listed firms or family firms to see the role of TMT for companies with data availability. A consequence of this is found in the little amount of observations for the Orbis variables, especially operating revenues, which cause some issues to the model.

In addition, it is out of the scope of this research to investigate different aggregations of TMT members. Past research showed that TMT heterogeneity matters in terms of performance (Hambrick *et al.*, 1996). However, my data are not enough to investigate different functional TMT compositions, but it would be intriguing to assess if that variable actually affect different performance dimensions, especially in relation to strategy. I leave that investigation to further research.

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Figure 1 – Functional TMT in Fashion: Output and Throughput Functions

Output Functions	Throughput Functions
Creative Director CMO Chief Communication Officer Chief Merchandising Officer Head of Retail	CEO CFO COO

Table 1 – Descriptive Statistics and Pearson correlation

	Variable	Mean	SD	1	2	3	4	5	6	7
1	Pambianco News Coverage	0.22	0.41	1.00						
2	Buyers' Ratings	0.32	0.56	0.30	1.00					
3	Operating Revenues	10.33	2.66	0.48	0.37	1.00				
4	Fashion Company Media Coverage t-1	4.53	1.96	0.48	0.51	0.72	1.00			
5	Creative Director Media Coverage t-1	3.82	1.82	0.37	0.47	0.53	0.73	1.00		
6	Ownership	0.17	0.38	0.37	0.40	0.57	0.48	0.38	1.00	
7	Founder = CEO = Creative Director	0.37	0.48	-0.28	-0.27	-0.38	-0.43	-0.27	-0.32	1.00
8	Fashion Company Age	2.94	1.02	0.38	0.31	0.57	0.53	0.31	0.40	-0.46
9	Fashion Conglomerate	0.22	0.41	0.24	0.37	0.30	0.34	0.25	0.51	-0.39
10	Eponymous	0.43	0.50	-0.19	-0.11	-0.32	-0.15	0.18	-0.25	0.25
11	Cultural Distance	0.39	0.55	-0.02	-0.02	-0.08	-0.05	-0.05	-0.06	0.02
12	Creative Director Awards t-1	0.03	0.14	0.10	0.20	0.18	0.18	0.20	0.10	-0.03
13	Fashion Company Awards t-1	0.02	0.11	0.10	0.15	0.15	0.14	0.12	0.09	-0.04
14	Diffusion Line	0.09	0.28	0.17	0.25	0.25	0.29	0.24	0.12	-0.17
15	Creative Director Multiple Collection	0.14	0.34	0.12	0.08	0.15	0.23	0.21	0.13	-0.07
16	Team of Creative Director	0.11	0.32	-0.07	-0.03	-0.03	-0.08	-0.18	-0.04	0.15
17	Creative Director Age	46.11	12.21	0.10	0.11	0.26	0.20	0.32	0.11	-0.11
18	Creative Director Tenure	2.26	0.96	-0.08	0.05	0.07	0.08	0.22	-0.12	0.06
19	CEO Tenure	2.04	0.96	-0.20	-0.01	-0.06	-0.07	0.01	-0.13	0.22
20	Employment Rate	65.46	5.87	-0.08	-0.14	0.07	-0.13	-0.01	-0.17	0.14
21	Labor Merket Insecurity	19.19	2.63	0.04	0.28	-0.22	0.03	0.01	0.06	-0.04
22	Creative Director Change	0.02	0.15	0.24	0.03	0.04	0.08	0.04	0.08	-0.12
23	CEO Change	0.04	0.19	0.26	0.02	0.08	0.11	0.06	0.06	-0.13
24	CFO Change	0.02	0.15	0.19	0.05	0.08	0.06	0.06	0.05	-0.01
25	COO Change	0.02	0.14	0.17	-0.03	0.04	0.05	0.04	0.00	0.02
26	Chief Merchandising Officer Change	0.01	0.10	0.12	0.02	0.05	0.06	0.02	0.01	-0.03
27	Head of Retail Change	0.02	0.15	0.19	0.00	0.03	0.07	0.07	0.05	-0.01
28	CMO Change	0.02	0.13	0.17	-0.01	0.01	0.06	0.03	0.00	-0.02
29	Head of Communications Change	0.02	0.13	0.17	0.03	0.04	0.07	0.02	0.04	-0.05

	Variable	8	9	10	11	12	13	14	15	16
8	Fashion Company Age	1.00								
9	Fashion Conglomerate	0.34	1.00							
10	Eponymous	-0.33	-0.27	1.00						
11	Cultural Distance	-0.03	0.06	0.00	1.00					
12	Creative Director Awards t-1	0.01	0.09	-0.03	-0.01	1.00				
13	Fashion Company Awards t-1	0.02	0.02	-0.08	-0.05	0.16	1.00			
14	Diffusion Line	0.13	0.16	-0.02	-0.12	0.05	0.08	1.00		
15	Creative Director Multiple Collection	0.12	0.21	-0.11	0.08	0.08	0.00	-0.02	1.00	
16	Team of Creative Director	-0.14	-0.13	-0.29	-0.04	0.04	0.07	-0.02	-0.02	1.00
17	Creative Director Age	0.46	0.16	0.05	-0.04	-0.07	-0.09	0.20	-0.03	-0.15
18	Creative Director Tenure	0.21	-0.09	0.26	-0.09	-0.01	-0.02	0.15	-0.19	-0.05
19	CEO Tenure	0.17	-0.11	0.13	-0.08	-0.05	-0.02	0.04	-0.15	-0.04
20	Employment Rate	-0.21	-0.24	0.18	0.17	0.05	0.08	-0.13	-0.15	0.02
21	Labor Merket Insecurity	0.10	0.07	-0.04	0.04	-0.02	-0.04	-0.03	0.04	0.06
22	Creative Director Change	0.16	0.08	-0.14	0.04	-0.01	-0.01	-0.03	0.10	-0.01
23	CEO Change	0.11	0.07	-0.08	0.03	0.02	-0.01	-0.01	0.06	-0.01
24	CFO Change	0.04	0.02	0.02	-0.01	-0.01	0.01	0.06	0.00	-0.05
25	COO Change	0.04	-0.02	-0.01	0.00	0.02	-0.01	0.05	-0.04	-0.01
26	Chief Merchandising Officer Change	0.09	0.05	-0.06	0.03	0.07	0.00	0.00	0.02	0.01
27	Head of Retail Change	0.06	0.04	-0.02	0.02	0.04	0.01	0.02	0.04	-0.03
28	CMO Change	0.05	-0.01	-0.01	0.00	0.00	0.05	0.01	-0.02	0.01
29	Head of Communications Change	0.08	0.03	-0.03	0.01	0.02	-0.01	0.01	0.03	0.01

	Variable	17	18	19	20	21	22	23	24	25
17	Creative Director Age	1.00								
18	Creative Director Tenure	0.67	1.00							
19	CEO Tenure	0.41	0.55	1.00						
20	Employment Rate	-0.15	0.03	-0.01	1.00					
21	Labor Merket Insecurity	0.02	0.02	0.06	-0.03	1.00				
22	Creative Director Change	-0.07	-0.35	-0.09	-0.04	0.03	1.00			
23	CEO Change	-0.03	-0.08	-0.39	-0.01	0.00	0.10	1.00		
24	CFO Change	0.02	0.04	0.02	0.05	0.01	0.00	0.00	1.00	
25	COO Change	0.05	0.03	0.00	-0.02	-0.02	0.02	0.05	0.28	1.00
26	Chief Merchandising Officer Change	0.01	-0.01	-0.04	-0.02	-0.01	-0.02	0.07	-0.02	0.08
27	Head of Retail Change	0.07	0.04	0.00	-0.04	0.03	0.01	0.01	-0.01	0.04
28	CMO Change	0.02	0.02	-0.02	0.00	0.07	0.01	0.05	0.07	0.03
29	Head of Communications Change	0.05	0.02	-0.04	-0.04	0.02	0.02	0.04	0.06	0.03

	Variable	26	27	28	29
26	Chief Merchandising Officer Change	1.00			
27	Head of Retail Change	0.17	1.00		
28	CMO Change	0.06	0.13	1.00	
29	Head of Communications Change	0.12	0.09	0.28	1.00

Table 2 – First Stage Heckman: probit model

	Model 1 - Probit Model	
VARIABLES	Coef	SE
Australia, omitted	-	
Belgium	-1.23***	(0.33)
Denmark, omitted	-	
Finland, omitted	-	
France	-0.97***	(0.26)
Germany	-0.55+	(0.33)
Hong Kong	-0.19	(0.42)
Italy	-0.80**	(0.25)
Japan	-1.80***	(0.36)
New Zealand, omitted	-	
Slovakia, omitted	-	
South Korea, omitted	-	
Spain	-1.14**	(0.38)
Sweden	0.50	(0.38)
Switzerland	-0.35	(0.30)
UK	-0.61*	(0.25)
USA	-0.71**	(0.25)
Virgin Islands (British)	-0.31	(0.35)
Brand Media Coverage t-1	0.29***	(0.02)
Creative Director Media Coverage t-1	0.09***	(0.02)
Ownership	0.20**	(0.07)
Founder=CEO=Creative Director	-0.33***	(0.07)
Fashion Company Age	0.36***	(0.04)
Constant	-3.01***	(0.26)
Number of Observations	4,023	

Standard errors in parentheses
*** p<0.001, ** p<0.01, * p<0.05, + p<0.10

Table 2 – Arellano-Bover/Blundell-Bond Model

VARIABLES	Model 2 (AB/BB) - Buyers' Ratings Coef	SE	Model 3 (AB/BB) - Operating Revenues Coef	SE
Lagged Dependent Variable	0.53***	(0.01)	0.92***	(0.01)
Inverse Mills Ratio	-0.15***	(0.01)	-0.11***	(0.01)
Fashion Conglomerate	0.16***	(0.02)	0.12***	(0.02)
Eponymous	0.08***	(0.02)	-0.14***	(0.02)
Cultural Distance	0.00	(0.01)	-0.06**	(0.02)
Creative Director Awards t-1	0.22***	(0.01)	0.02	(0.03)
Fashion Company Awards t-1	0.23***	(0.01)	0.02	(0.02)
Diffusion Line	0.07***	(0.01)	0.01	(0.02)
Creative Director Multiple Collection	-0.03**	(0.01)	0.13***	(0.02)
Team of Creative Director	0.06*	(0.03)	0.21***	(0.04)
Creative Director Age	-0.00***	(0.00)	0.01***	(0.00)
Creative Director Tenure	-0.01	(0.01)	-0.03**	(0.01)
CEO Tenure	0.04***	(0.00)	-0.00	(0.01)
Employment Rate	-0.00***	(0.00)	0.01***	(0.00)
Labor Market Insecurity	0.04***	(0.00)	-0.02***	(0.00)
OUTPUT FUNCTIONS:				
Creative Director Change	-0.26***	(0.02)	-0.06	(0.05)
CMO Change	-0.03***	(0.01)	-0.06+	(0.03)
Chief Communications Officer Change	-0.21***	(0.03)	-0.40***	(0.10)
Chief Merchandising Officer Change	-0.24***	(0.02)	0.97**	(0.32)
Head of Retail Change	0.06***	(0.00)	-0.08***	(0.02)
THROUGHPUT FUNCTIONS:				
CEO Change	0.01+	(0.00)	-0.08***	(0.02)
CFO Change	-0.00	(0.00)	-0.19***	(0.04)
COO Change	0.03***	(0.01)	-0.05+	(0.03)
Observations	1,215		424	
Number of Fashion Houses	143		84	
Number of Instruments	125		110	
AB test for AR(1) in first difference	0.000		0.043	
AB test for AR(2) in first difference	0.169		0.028	
Overall Hansen Test	0.823		0.985	
Difference-in-Hansen test of GMM instruments levels (p-value)	0.978		0.942	
Difference-in-Hansen test of lagged dependent variable (p-value)	0.588		0.105	

Standard errors in parentheses
*** p<0.001, ** p<0.01, * p<0.05, + p<0.10

INDIVIDUAL VULNERABILITY IN ORGANIZATIONS

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Abstract. This paper proposal draws on the literature of psychology, organizational behavior, bioethics, and business to define the concept of vulnerability and its link with organizations. We propose that vulnerability is the state and the feeling of individuals being fragile and under attack, with the possibility of being physically or emotionally wounded by that. We propose that vulnerability impacts organizations, and it is a fundamental variable to study. Firstly, because it is an ontological condition, and it cannot be limited to specific groups of individuals – i.e., marginalized or disable – and it is inherent to people, which means often hidden to organizations. In addition, vulnerability is generally associated with individuals' fragility and weakness; therefore, "undesirable." This is because it could carry negative consequences to individuals experiencing it. Employees bring the negative side of vulnerability to work, which means negative emotions as well as physical wounds associated with the state of vulnerability. We propose that institutionalizing vulnerability creates a common ground where people feel similar to each other, accepted their vulnerability, and feels a sense of unity and a more careful consideration of their colleagues. This allows them to open up about vulnerability, thus revealing it, and to bond with colleagues turning the organization in a nice place to work. Finally, institutionalizing vulnerability allows leveraging on the positive emotions generated to counterbalance the negative consequences of it.

Keywords: individual vulnerability, individual fragility, institutionalization

INTRODUCTION

"*We live in a vulnerable world. And one of the ways we deal with it is we numb vulnerability*" (Brené Brown, "The power of Vulnerability" TEDxHuston). With increasing political instability, unforeseeable job careers, and general insecurity, people are continuously under attacks, whether to their emotional or their physical sphere. This means that they face increasing vulnerability being more exposed to potential harmful events and attacks, ending up wounded by them. The problem, however, is that vulnerability is often associated with weakness and fragility and everyone wants to avoid, or better, numb it. This is why we ask ourselves, what is exactly vulnerability and why individual vulnerability matters for organizations. Why do firms need to care about it?

In order to investigate our research question, we start reviewing all the concept definitions provided by the literature (Podsakoff, MacKenzie, & Podsakoff, 2016). By analyzing dictionary definitions and past research, we ended up with vulnerability as the "*the state and the feeling of individuals being fragile and under attack, with the possibility of being physically or emotionally wounded by that*". From this simple definition, we can infer some fundamental characteristics of vulnerability. Firstly, it is an ontological condition, every human being experience it (Mackenzie, Rogers, & Dodds, 2014). Given our embodiment, everyone is subject to injure, diseases, aging, and all potential threats that hurt individuals. This differentiates vulnerability from the so-called vulnerable groups. This is because past research, especially the business one, referred to specific groups of individuals while talking about vulnerability (Serbin & Karp, 2004). If it is true that disables or marginalized are easily under potential attack (Pinzon-Salcedo & Torres-Cuello, 2018; Woodhams, Lupton, Perkins, & Cowling, 2015), vulnerability is a broader concept and belongs to everyone. What is pivotal of this definition, moreover, is that it is an inner individual state and feeling, as well as something related to the "external" situational context (Walker, Kestler, Bollini, & Hochman, 2004). This means that possible attacks and harmful events can be linked to the environment (accident, trauma, or, also, unhealthy work environment) as well as from the relationships established (people may be attacked by other individuals). Therefore, vulnerability has both an individual as well as a social components. In addition, from the definition, we know that it is generally related to emotional or physical wounds and implies usually negative outcomes to individuals, to their relationships, and environment (Chambers & Windschitl, 2004). Especially, we find that people experiencing vulnerability are often insecure and develop negative emotions (Grubbs & Exline, 2016).

After analyzing in depth the concept of individual vulnerability, we investigated how organizations may be impacted by it. Firstly, since vulnerability happens to everyone and it is unexpected and unplanned, organizations constantly cope with vulnerable employees and the adverse outcomes associated. In fact, vulnerability is often associated to negative emotions, as well as physical wounds, that they bring to organizations. They can lead to low performance, as well as to employees using resources more to deal with vulnerability than to work. In addition, vulnerability generates anxiety, stress, and other negative outcomes that are not desirable to organization (Bouton, Mineka, & Barlow, 2001; Gunnar & Quevedo, 2007). Moreover, vulnerability makes people feeling weak and socially undesirable, thus preventing them to disclose it and build relationships with their colleagues causing a bad environment to work into (Mackenzie *et al.*, 2014). Therefore, organization needs to care about the effect of individual vulnerability.

Our intended contributions lies on the fact that not only we reviewed the concept of vulnerability and assess how it impacts organizations, but our intent is to investigate how organizations can turn vulnerability, that looks like an unplanned, hide, and negative variable for organizations into a strength and an asset. We argue that by institutionalizing vulnerability, companies create a legitimization mechanism at firm level, such that people feel free not to numb (as highlighted in the beginning) their vulnerability. This creates a series of beneficial outcomes for the organizations. Firstly, by institutionalizing that it is normal to feel vulnerable, people may start to disclose it, therefore reveling what is generally hidden to the organization (Santuzzi & Waltz, 2016). In addition, by legitimizing the possibility of being vulnerable, people may feel a sense of unity and feel similar to their colleagues (Brown, 2011). This helps socialization and a creation of a nice environment to work into. Consequently, people like that company and their colleagues. This generates positive emotions, as well as good relationships counterbalancing the negative consequences of vulnerability, like negative emotions and isolation (Barsade & O'Neill, 2014). This is not only beneficial to companies, but also the individuals well being.

At this stage, this proposal center on deeply understanding the concept of vulnerability. However, we preliminary investigated this idea of institutionalizing vulnerability by administering surveys to an Italian social enterprise, which built its business model on individual vulnerability. However, even if we get some preliminary data on the fact that this company was really transforming individual vulnerability into an asset, we plan for future qualitative investigations to unpack the mechanisms of how vulnerability is linked to organizations and how institutionalizing vulnerability works in business. This also allows us to develop more theoretical mechanisms to add the paper.

Defining vulnerability concept: methodology

Searching for individual vulnerability in management and business literature is extremely challenging because little is written about the concept and there is a substantial fuzziness in the definition of what individual vulnerability represents. The conceptual confusion is due to the fact that vulnerability encompasses different labels, different definitions, as well as it is used to describe different phenomena (Tähtinen & Havila, 2019).

In addition, individual vulnerability is mainly related to research in psychology rather than in business literature.

In order to clarify a concept, Podsakoff and colleagues (2016) delineated some important steps for the conceptualization's process. We firstly search for the dictionary definition of the term to infer all the potential attributes related to the concept of vulnerability (Podsakoff *et al.*, 2016). This allows us retrieving all the most relevant synonyms, used to infer all the potential keywords that we need for our search. Previous studies are fundamental to understand what is vulnerability and how scholars explored it in their works.

From the review, we develop a comprehensive definition of vulnerability and linked it to organizations and how companies should effectively deal with it. Given the dictionary definition of vulnerability, we found the related attributes and synonyms: fragility and weakness. In addition, "disability", "handicap" and "marginalized" were often employed in relation to vulnerable populations; therefore, we added them as keywords.

We search in Web of Science all the management papers containing in their text "individual vulnerability", or "individual fragility", or "individual weakness", or, "marginalized individual", or "disability", or "handicap". The strategy of adding "individual" is due to isolate the human condition form system or environmental or software vulnerabilities. Of the 1084 paper available, we select only top tier papers in business field (no journals with an impact factor lower than 2) and we checked the relevance of the paper with respect to our topic. We ended up with 45 papers focused on our topic. However, we realized that management literature was especially focused on disability rather than vulnerability. Therefore, we run a subsequent Web of Science search only for psychology papers when the term "vulnerability" was present in the title, keywords, and abstract. Given that individual vulnerability is mainly defined in psychology literature, we identify top journals in psychology from the Academic Journal Guide 2018 (https://charteredabs.org/academic-journal-guide-2018/) and download 56 articles from Psychology Bulletin, Psychology Review, and Annual Review of Psychology, of which 51 were relevant for the definition of vulnerability.

Therefore, we, firstly, try to use the psychology research to define vulnerability and, then we employ the literature search in management to link vulnerability to organizations.

The concept of individual VULNERABILITY

Oxford dictionary defines vulnerability as "*the quality or state of being exposed to the possibility of being attacked or harmed, either physically or emotionally*"[3]. From Merriam-Webster vulnerability is "*capable of being physically or emotionally wounded and open to attack or damage*"[4]. Both definitions entail that vulnerability is the quality of being easily hurt, influenced, or attacked as specified, instead, in Cambridge dictionary[5].

These definitions encompasses three main components: (1) the fact that people feel exposed to potential attacks, (2) the possibility of being physically and emotionally harmed by those attacks, and, (3) the fact that these attacks may come from external sources generating a sense of insecurity. This means that vulnerability encompasses both an individual component, as well as an external component. Table 1 and 2 display the list of all the papers with the main definitions and conceptualizations retrieved from the articles analyzed.

Insert Table 1 and 2 about here

Regarding the individual component, if we recall the Latin root of vulnerability "*vulnus*", it means "*wound*", and therefore individual vulnerability is to be fragile, to be susceptible to attacks, wounding, and this generally entails suffering. This is recognized as an ontological feature of every individual (Mackenzie *et al.*, 2014). This is because given our

[3] https://www.lexico.com/en/definition/vulnerability
[4] https://www.merriam-webster.com/dictionary/vulnerable
[5] https://dictionary.cambridge.org/dictionary/english/vulnerability

human embodiment, we are always potentially under attack, physically and emotionally, or at least exposed to the risk of that attack. This means that individuals are, by their nature, at risk of incurring negative outcomes, even little injuries. In fact, Table 1 shows a list of studies where vulnerability is associated to the intrinsic predisposition of people to incur into difficulties and adverse outcomes. Vulnerability means that people are more "susceptible to" something (Bistricky, Ingram, & Atchley, 2011), meaning more likely to be affected by diseases (Johnson & Roberts, 1995), psychopathologies (Leyro, Zvolensky, & Bernstein, 2010), stress (Gunnar & Quevedo, 2007), anxiety (Bouton *et al.*, 2001), depression (Coyne, Thompson, & Whiffen, 2004), and others human related negative outcomes. Even aging is considering in relation to vulnerability because it makes people more fragile, and it is an intrinsic human condition (Charles, 2010). This is why vulnerability is ontological and makes people feel all the potential risks associated to their lives.

The first group of papers in table 2, instead, associates the concept of vulnerability to the external component of it. Some scholar highlighted, indeed, the aspect of being potentially attacked by external negative events (Chambers & Windschitl, 2004) by providing definitions of vulnerability in terms of outside risk (Gerrard, Gibbons, & Bushman, 1996; Harris & Hahn, 2011), threat (Pyszczynski, Greenberg, & Solomon, 1999) and something out of control (Chorpita & Barlow, 1998). "*Perceived vulnerability is a major factor of motivation to avoid risk*" (Gerrard et al., 1996: 391). Actually, Gerrard and colleagues (1996) studied vulnerability in light of the risk of HIV contagion. When people understand their potential vulnerability in front of HIV contagion, they tend to use precautionary behavior. In fact, when people are overoptimistic and do not perceived any risks, they feel as if they are invulnerable (Harris & Hahn, 2011). The feeling of being exposed to attacks and harmful events relates vulnerability to what is out of people control (Chorpita & Barlow, 1998). In fact, scholars recognized vulnerability as being related to contingencies, therefore, out of people's possible plans (Crocker & Wolfe, 2001). One paper's definition explicitly linked individual feeling their vulnerability to what is unknown and not reasonably controlled, because of the unexpected adverse consequences associated to (Chambers & Windschitl, 2004). That is why other scholars defined vulnerability in relation to death, as the most unpredictable and potentially harmful event (Pyszczynski et al., 1999). All this external threats to individuals are linked to the fact that people are embedded into a social context (Mackenzie *et al.*, 2014). Being part of the society implies that people can experience attacks and negative consequences in the place where they actually live. This "social component" of vulnerability implies, on the one hand, that people start relationships and that means dependency on other individuals to a varying degree. This implies being possibly subject to attacks and to be wounded by other people. On the other end, being embedded in an environment, implies that people may incur in accidents, because of where they physically live. Hurricanes, earthquakes, or simply car accident, all encompass possible harmful situations (Mackenzie *et al.*, 2014).

Therefore, our comprehensive definition of vulnerability is "*the state and the feeling of individuals being fragile and under attack, with the possibility of being physically or emotionally wounded by that*". This is due because individuals as human beings are both intrinsically subject to potential wounds, and embedded in the social context, i.e. people and environment, which is where they can be attacked. This will discriminates among the sources of vulnerability, developed in the following paragraphs.

Vulnerability: Who is vulnerable?

From previous research, we can infer some of important characteristics of vulnerability experienced by individuals.

Vulnerability is a common human condition. First of all, by being an ontological condition, it belongs to everyone. In addition, individuals experience vulnerability not only because of their intrinsic predisposition, but also because of their life experiences. As said, other people or external events can attacked them, causing negative consequences. This implies that, inevitably or not, everyone can face vulnerability conditions because of some unplanned life situation (Jordan, 2008). Everyone can feel his or her life under attack and, even if nor "genetically" predispose to vulnerability, they can incur in period of dramatic stress at work, may experience job insecurity that lead him/her to stress, anxiety and other negative outcomes (Wolf, 2019).

However, in the review of the papers in psychology, we found that there are some typologies of population that are considered vulnerable for their characteristics of being more easily exposed to attacks, damages, and negative events (Serbin & Karp, 2004). For example, research identified vulnerable populations as people with HIV (Segerstrom & Miller, 2004). Vulnerable population in psychology is also strictly linked to those groups that are in need, in danger and hurt (Preston, 2013)(as from the definition) and more specifically "*family poverty; parental abuse or neglect; and limited parental education, mental health problems, alcoholism, addiction, or criminality*" (Serbin & Karp, 2004: 335). Vulnerable populations therefore encompass people with disabilities – individuals with "*physical or mental impartment that substantially limit one or more major life activities*" (Stone & Colella, 1996: 354) - and the marginalized, meaning "*disadvantaged groups in the labor market (specifically, women, ethnic minorities, and people with disabilities*" (Woodhams *et al.*, 2015: 283) or people "*living with disabilities, or slaves, or people displaced by war, or people so poor that they don't know if they will have enough food for the day*" (Burns, 2018: 866).

In table 2, we can find an overlap in the concept of vulnerability, disability and marginalized population. However, those refer to distinct concepts and reconciliation is needed. If, on the one hand, vulnerability encompasses both disability and marginalized population, the others are specific separate groups that may intersect into the so-called marginalized disabled people. Figure 1 provides a graphical representation of these concepts' relationship.

Insert Figure 1 about here

As far as marginalized are concerned, there is no clear-cut definition, but past research recognized marginalized populations as vulnerable. From the dictionary, marginalized individuals are defined as "a person or a group that is treated as insignificant or peripheral" [6]. Actually, as evidenced before, those individuals are often, poorest populations, disadvantaged people living at margin, often cut out from society. This group is experiencing vulnerability because of their predisposition to negative outcomes and the high chance to be easily attacked. As a matter of fact, "*people in the marginalised areas experienced high levels of public insecurity and crime*" (Pinzon-Salcedo & Torres-Cuello, 2018: 949), they are "*disadvantaged group in the labor market*" (Woodhams et al., 2015: 283). According to the Equality Act enhanced in 2010, marginalized are divided "*according to nine 'protected characteristics' (race, age, gender, sexual orientation, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, and religion and belief)"* (Brewis, 2019: 98). This people can face physically or emotionally damages especially due to the stigma they carry that prevents them to be socially accepted as "normal" according to the social standards (Ragins, 2008). Marginalized individuals experience, indeed, high level of vulnerability, especially for their personal flows with respect to the social context that make them more undesirable, deviant from social accepted characteristics (Ragins, 2008), and therefore subject to attacks and physical or emotional wounds.

[6] https://www.lexico.com/en/definition/marginalize

As already evinced from previous papers' citations and marginalized definitions, disability often falls into marginalized category. Actually, one definition of disability regarding hearing impairment is that it "*can be seen from the medical lens as an impairment (e.g. degree of hearing loss) and/or as a socially or environmentally constructed barrier (e.g. lack of assistive technologies to overcome or compensate for the hearing loss, or stigma associated with a disability in certain contexts)*"(Baldridge & Kulkarni, 2017: 1219). Actually, in German definition of disability, it is considered the physical and mental impairment, as well as the problem of being out of the society because of it (Dwertmann & Boehm, 2016). Therefore we can generally think of disability falling into the marginalized category of individuals. However, not all the disabilities bring people to be labeled marginalized. In the ADA (American with Disabilities Act)[7] definition of disabilities, disability label qualifies also in case there is only a record of impartment (Zhu, Law, Sun, & Yang, 2019). Therefore, we can expect that someone cured from cancer may not experience marginalization, especially, after recovery.

Therefore, as in figure 1, we can have marginalized disabled people and people experiencing impairment but not peripheral to the society or socially marginal. It is important to highlight that disability is under the umbrella of vulnerability. Disable people have predisposition to be attacked or harmed and experience vulnerability. Given the fact that they are "different" with respect to normal social standards and are protected by law (Ragins, 2008), they may be severely harmed and easily attacked because of their impairment (Perry, Hendricks, & Broadbent, 2000). They are often cut out from job market and stereotyped as unable and limited in their abilities (Lengnick-Hall, Gaunt, & Kulkarni, 2008). The fact that people just look at their disabilities make them often vulnerable to external judgments that

[7] https://adata.org/publication/ADA-faq-booklet

overlook all their other relevant qualities (Bartunek, Foster-Fishman, & Keys, 1996). They tend, therefore, to incur in more losses and damages because of their condition of impairment.

Acknowledging that disabilities and marginalization are both vulnerable groups, why is vulnerability a broader concept then disability and marginalization? This is because while disabled and marginalized individuals are intrinsically vulnerable, people may experience vulnerability even out of these two categories. Vulnerability is common to all human beings, differently from the previously analyzed subgroups. People may feel potentially harmed and insecure when they experience, for example, job insecurity. Career insecurity may lead people to feel anxiety and other negative outcomes, ending up emotionally wounded (Wolf, 2019). In addition, a mother whose child is sick may feel vulnerable and anxious and harmed by future uncontrollable events that make her exposed to emotional problems and negative outcomes. Moreover, drug addiction is out of the scope of disability definition according to ADA, one of the most cited sources for describing disability (Sackett & Wanek, 1996). And we know that individual vulnerability has been studied also in strict connection to drug addiction, with vulnerability as predisposition to incur in negative outcomes resulting from drugs (Everitt & Robbins, 2016; Koob & Le Moal, 2008).

The concept of vulnerability, therefore, is fundamental to encompass all those human conditions that make people subject to attack, that make people in danger, because unexpected or unsafe events, which could hit someone's life. People may be wounded and bring that to their workplace, where companies need to be especially aware of the consequences of vulnerability.

Vulnerability: Sources, States, and Consequences

Insert Table 3 about here

In the review of the concept of vulnerability, it is possible to find scholars trying to explain vulnerability by analyzing its dimensions. Some of them focus on the sources of vulnerability, some analyzes individual's states, while other research centers the analysis on the consequences.

Sources of vulnerability. Vulnerability is not only a state and feeling of people, but it is also an individual predisposition (Helgeson & Zajdel, 2017). This implies that one source of vulnerability is intrinsic to human condition, called *inherent dimension* (Mackenzie *et al.*, 2014). Vulnerable individuals are "*more likely than others to be adversely affected by unsupportive contextual conditions*" (Belsky & Pluess, 2009: 887). This means that there are some people that, because of their personal characteristics are more sensitive to events and are more intrinsically vulnerable. As a matter of fact, past research in psychology developed a large number of studies investigating the role of genetic and personality characteristics as vulnerability factors, i.e. those factors that make people more susceptible to events and more prone to develop negative outcomes, such as depression. Whether called risky genes (Bakermans-Kranenburg & Ijzendoorn, 2015), or hard-wired characteristics (Vitaliano, Zhang, & Scanlan, 2003), or biological factors (Hyde, Mezulis, & Abramson, 2008), these individual vulnerabilities are those that make people more likely to experience negative conditions when they confront adverse life situations (Hankin & Abramson, 2001). In studying depression, people have genetic vulnerabilities to depression, meaning "*genetic liability to depressive and overlapping disorders*" (Hankin & Abramson, 2001: 781).

However, in defining vulnerabilities, past research underlined that this predisposition is genetic but it is also highly influenced by the environmental factors (Walker *et al.*, 2004). This leads to the other source of vulnerability related to the environment and social context of individual (as anticipated in the definition). This dimension can be called *situational* (Mackenzie *et al.*, 2014). Actually, external events as "*environmental adversity include* *abuse/ maltreatment, death/illness of a parent*" (Hankin & Abramson, 2001: 782) give rise to vulnerabilities. Families, for example, have been extensively associated as one plausible trigger of the genetic vulnerability factors, especially in traumatic experiences (Miller, Chen, & Parker, 2011; Repetti, Taylor, & Seeman, 2002). What it is important to highlight, however, is that, it is not clear which roles have genetic versus external factors in terms of vulnerability. If on the one hand, papers showed that people intrinsic vulnerabilities can be silent unless triggered by external events (Carver, Johnson, & Joormann, 2008), there are other studies that claim that there can be external events that are at the basis of vulnerability (Walker, Kestler, Bollini, & Hochman, 2004). In studying schizophrenia, "*researchers are not in a position to estimate the relative magnitude of the inherited and environmental contributors to the etiology of schizophrenia. Moreover, we do not yet know whether genetic vulnerability is present in all cases of schizophrenia. It is possible that some cases of the illness are solely attributable to environmental risk factors*" (Walker et al., 2004: 409). Therefore, we will consider as sources of vulnerability both the genetic and inherent individual characteristics of being susceptible to negative outcome, as well as the predisposition to adverse outcomes due to negative events hitting individuals' life, i.e. the situational aspect.

States of vulnerability. Based on the sources of vulnerability, we can think about different states and dimensions of it. Actually, since part of the vulnerability stems from "inside" of individuals, it may just be dispositional, meaning just potentially occurring but not effectively so. Mckenzie and colleagues (2014) provided a clear example of differences among dispositional vs. occurrent vulnerability. Every pregnant woman can be vulnerable to potential childbirth complications. However not everyone experiences it. This is particularly challenging because it gives rise to potential and hidden vulnerability and actual vulnerabilities that lead to potential different consequences.

Moreover, individual vulnerability is time variant. "*Persons may shift which patter of vulnerability they show, depending on their circumstances*" (Coyne & Whiffen, 1995: 358). This implies that people experience vulnerability differently during their life, and may also incur in periods with or without it. The severity and the experience of vulnerability are both highly variable during each individual's lifetime. To make an example, people may unexpectedly experience insecurity in their jobs and that reflects in higher vulnerability, more stress that can lead to experience negative emotions and being personally hurt by that situation. This may change once job security is restored (Shoss, 2017).

Consequences of vulnerability. Some researchers, dealing with vulnerability, focused mainly on its consequences. Vulnerability generally entails negative outcomes. These outcomes are related to individuals, as well as to the social component of vulnerability.

Regarding individual consequences, vulnerability entails people being wounded, both physically and/or emotionally. In fact, people usually feel vulnerable because of potential negative events damaging their life, experiencing a sense of insecurity (Fairbairn, Briley, Kang, Fraley, Hankin, & Ariss, 2018) and associated negative emotions (Crowell, Beauchaine, & Linehan, 2009; Grubbs & Exline, 2016). In fact, when people feel vulnerable, there is a general association to anxiety (Sowislo & Orth, 2013), depression (Khazanov & Ruscio, 2016), less psychological flexibility (Charles, 2010), and other negative emotions (Grubbs & Exline, 2016). Therefore, negative emotions are the first possible consequence of vulnerability. Actually, research showed how insecurity and potential unforeseen situations are at the bases of frustration, anxiety, anger, and other negative emotions (Kiefer, 2005). And this sense of insecurity is in the definition of vulnerability to potential external, unforeseeable attacks. In addition, feeling of vulnerability makes people weak, undesirable, and scared in front of the adverse events of their life. A part from the emotional sphere, consequences of vulnerability may imply also physical wounds. There is a general comorbidity between the two aspects (Helgeson & Zajdel, 2017). People filing bad may hamper their physical well-being. For example, for old people, a generally vulnerable category, physical issues and chronic experience of pain can come in parallel to negative emotions due to increase loneliness and isolation (Parke, Griffiths, Pattinson, & Keatley, 2018).

This last example highlights the second type of negative consequences of vulnerability, those related to the social sphere. Social consequences of vulnerability are such that by feeling weak and threaten, people may isolate themselves, may find difficulties in creating bonds and integrate into the society (Mackenzie *et al.*, 2014). This may exacerbate the wounds of vulnerability. In addition, since vulnerability implies a state of weakness, calling people vulnerable can stigmatize and exclude them for what is normally conceived as the "normal" individual in the society (Brown, 2011).

Vulnerability as a fundamental concept for organizations

Given all the characteristics of vulnerability, it is important to assess how it affects employees and, subsequently, organizations. First of all, in management literature there is little about vulnerability and how it influences firm's activities. It is important to acknowledge, indeed, that, on the one hand, a big part of business literature faces the challenge of organizations dealing with disabilities, while on the other hand, there is all the social entrepreneurship and nonprofit literature dealing with marginalized people and people in need. It is pivotal to focus on how vulnerability impacts all the organizations and why we should care about it.

In reviewing vulnerability in organization, few papers employ this concept and it is mainly used in relation to people experiencing traumatic events (Bacharach, Bamberger, & Doveh, 2008; Haynie & Shepherd, 2011) and job insecurity (Shoss, 2017; Wolf, 2019). It is mainly linked to the concept of risk and people feeling insecure about their new life after an accident. Thinking about the reason why we face few researches on vulnerability, we can easily understand how hard can be for organizations to assess individual vulnerability. Given its ontological nature, it can be completely hidden by people in organizations. Disclosing individual's feeling of vulnerability can be extremely disadvantageous in a work setting, especially if standards require being super productive employees without any problem. For example, past research on disabilities showed that people are reluctant to talk about their disabilities, because this opens up to discrimination (Johnson & Joshi, 2016), and the label of being considered "different" (Mik-Meyer, 2016). People refrain to talk about their problems because of the fear of unfavorable changes and to be negatively judged by other people (Kulkarni & Gopakumar, 2014). An interesting study on autism shows that it is really hard for individuals to decide to disclose it because of the stereotype associated to it and the possible reactions of co-workers. The main finding, in fact, is that disclosure was only done to friends in the work place (Johnson & Joshi, 2016). Therefore, organizations should really care about vulnerability because of its hidden component and the possible negative consequences associated to its disclosure.

As reported in one paper, one lecturer's quote states that: "*Oh I don't want people to know I am off on stress it makes me feel as if I am weak, you know*" (Elraz, 2018: 729). The problem with vulnerability is that it may signal people weakness (Brown, 2011), as if they are not able to handle external events, unfavorable life-situations, and they are such delicate individuals to be easily hurt. All these feeling of being weak, of being different, of fear to disclose, lead people to be physically and, especially, emotionally wounded. Fear of rejection is one of the main problems that lead people to even exacerbate their vulnerability and the negative outcomes associated to that (Dwertmann & Boehm, 2016). Therefore, companies may find themselves to employ people who are feeling vulnerable, scared about colleagues' reactions to their weaknesses, and they fear about future unplanned events. However, all of that is often hidden in companies' environment.

Moreover, vulnerability in organizations is related to sources and states, as well as firms are affected by the consequences of it. Company could be an environment generating vulnerability, i.e. an external source of it. By working in a firm's context where there is stress, competition, unfeasible working hours, people may experience vulnerability. They may be wounded by organizational environment, as well as by colleagues. A study underlined that unhealthy places could exacerbate the vulnerability of people, especially if disabled (Santuzzi & Waltz, 2016). In addition, states of vulnerability matters because organizations need to be aware, that unlike disabilities, that are generally known since the hiring process, vulnerability can be totally unexpected. Therefore, employees who never have track records of being susceptible to external events, may incur in trauma that lead them to emotional harmful outcomes, like depression. This is, for example, the case of militaries accidentally injured who are trying to rebuild their career after traumatic events. Their vulnerability was highly dependent on the impossibility to rely on previous schemata and this makes them unsecured, in a world with completely different assumptions and they have to fully rebuild their career path (Haynie & Shepherd, 2011). The fact that vulnerability is time variant, unexpected, and also potential or occurrent, threatens organization's structure and activities. Organizations can forsake plans because of an individual's actual vulnerability not foreseen before.

Furthermore, all the negative individual and social consequences of vulnerability become part of organizations, since employees spend almost all their day at work. Whether people disclose it or not, vulnerability makes them easily attacked, easily damaged by negative outcomes, especially emotionally hurt. This implies that vulnerability threaten their well-being, make them less focus on their activities, and potentially underperforming. In a study of vulnerability driven by job insecurity, the authors recognized that people could be really damaged because of the unforeseen job career and activities. Moreover, they are scared about the need to change job, but they are also psychologically threatened because they feel difficulties in performing, in recognizing a clear job identity and in forming expectations for the future career (Shoss, 2017). People may be really threatened by their vulnerability and, for companies this can bring low individual productivity because some of the physical and mental resources are dedicated to handle vulnerability instead of channeled to their job. Moreover, not only individual consequences may reflect into companies' poor outcomes, but also social impact of vulnerability is extremely important in an organization. If individuals feel threaten they will incur difficulties in working with their colleagues, may risk being isolated, thus creating an unpleasant work environment.

Therefore, organizations need to deal with vulnerability and all the negative outcomes associated with people feeling their possibility of being attacked and physically and emotionally susceptible to adverse life situations.

How organizations cope with vulnerability

The main insight from previous paragraphs is that vulnerability affects organizations and it is usually associated with negative consequences, not only for the individuals experiencing it but also for firms' activities and performance. One of the main features highlighted before is that organizations are challenged by vulnerability because it can be hidden and totally unexpected. In addition, vulnerability is associated to something people refrain to talk about, exacerbating the negative consequences of it.

Therefore, we suggest that institutionalizing vulnerability provides potential advantages, especially by exploiting the positive effects of it, which are generally disregarded. This is because institutionalizing at the firm level the fact that everyone can be vulnerable creates a legitimization mechanism such that people feel not negatively judged or different if they are vulnerable. By institutionalizing that vulnerability belongs to everyone, employees can be scared, fragile, and worried, but at the same time feel relieves, good, and accepted and recognize themselves in the organization they work into (Zietsma, Toubiana, Voronov, &

Roberts, 2019). By acknowledging that vulnerability is a common human condition and employees can face it, this creates a mechanism to unhide vulnerability within companies. This is because people feel not diverse or negatively judged because of vulnerability, but it something accepted and belonging to the firm's culture. Basically people feel they are part of the organization because their firm recognized that it could be normal to feel vulnerable. This can open up to free disclosure, thus a first step to unhide vulnerability and to accommodate the fact that it can be unexpected.

Moreover, institutionalization impact sources and consequences of vulnerability. The idea that people can be vulnerable creates a more "human" work environment, which reduces the possible sources of vulnerability due to firms themselves. As said before, there are work environments that generate vulnerability because of the unhealthy demands and policies that increase stress and other negative outcomes (Santuzzi & Waltz, 2016).

In relation to consequences, when organizations create a social context that is accepting that people may experience vulnerability, this can turn negative consequences of it into company's strengths. In fact, legitimizing vulnerability has direct implications on people feeling accepted and included (Santuzzi & Waltz, 2016). In studying disability, past research stressed the importance of creating organizations whose job designs and context is suitable and open to disabilities. (Santuzzi & Waltz, 2016). Legitimization and social acceptance of vulnerability is fundamental when people feel insecure and experiencing adverse events. In fact, the idea is that companies recognizing vulnerability allow people to talk about it, to socialize with colleagues, and creates a common ground where people feel similar to other colleagues. Since vulnerability belongs to everyone, it creates opportunity for people to connect because they feel understood and similar to others. Exactly as studies demonstrated, talking about sufferance, pain, difficulties and troubles foster union and cooperation among people (Bastian, Jetten, & Ferris, 2014). By feeling connected, members of the organization are willing to help each other. As a matter of fact, vulnerability can be "*a motivator for unity and more careful consideration and treatment of others*" (Brown, 2011: 317). Socialization and bonding among colleagues is fundamental because it allows outsides to becoming insiders, to be accepted. Past research showed how, in context of physical disabilities sports and socialization activities turns out to be fundamental to involve people in activities and to lower the barriers created by the fact that there are body stereotypes that people with physical impairment do not meet (Taub, Blinde, & Greer, 1999).

Effective bonding and socialization helps to pursue common goals and when people feel accepted and good in their workplace, this enhances also their performance. People like working in places where they feel understood and good relations are established, developing positive emotions (Barsade & O'Neill, 2014). People experiencing positive emotions (contrasting the negative ones of vulnerability), will start more unknown tasks (enhance their task activity) and decide not to quit challenging ones (increase persistence). This means that positive emotions, by favorably affecting task activity and persistence, will improve individual performance (Staw, Sutton, & Pelled, 1994). In addition, positive emotions also broaden cognitive thinking, which allows for thoughts that are more creative and flexible thinking, enhancing individual performance (Fredrickson, 2001; Fredrickson & Branigan, 2005). This means that positive emotions can counterbalance the negative effects due to vulnerability and the adverse outcomes. In addition, socialization and bonding overcome isolation due to vulnerability and the negative emotions associated.

Therefore, in order to face unexpected and normal people vulnerability, companies should institutionalize and create a social context in which vulnerability is a common characteristic, this creates a common ground where people feel they can disclose it, creating bonds among individuals who can help each other and avoid discriminations and stereotyping.

This could equipped companies to deal with something inevitable and unexpected such as vulnerability of employees.

Pilot study: The case of AlphaCO

In the following paragraphs, we develop some prelimnary evidence of the importance of institutionalizing vulnerability thorugh a case study of Alphaco and a plan for follow-up studies.

Alphaco (an invented name for the real hybrid social venture) is an Italian social enterprise based near Verona (Norther Italy, Veneto region) that creates fashion products - fall/winter and spring/summer entirely new designed collections - employing people reognized (or not) as vulnerable.

It was founded in 2013 reaching now more that 100 people employed, 5 stores and 50 multi-brands stores.

Alphaco creates these fashion products mixing human vulnerability - Alphaco employs people victim of violence, human trafficking, physical and mental diseases, but also unemployed people without job opportunities - and system fragility - it is giving a second change to left over material, so this means using fabric overstock to produce its collections.

Alphaco earns revenues by selling their garments and accessories that have four main characteristics. They are: (1) ethical (employing local disadvantaged people, giving to them a second chance), (2) unique (every Alphaco item is a made in Italy, unique piece of limited edition collection), (3) green (Alphaco reemploys unused stocks of first quality fabric, reducing the amount of waste) and (4) hand-crafted (every piece of Alphaco collection is hand-made and hand-finished).

Alphaco is a suitable environment because they istitutionalized vulnerability through their business model called “Fragility Model”. In order to double check that fragility means vulnerability, we looked at the dictionary and fragility is the quality of being delicate or vulnerable. Therefore it is a clear synonim of vulnerability.

Since its inception, this company was centered on this concept of vulnerability. Alphaco creates a company context in which people recognized vulnerability as an asset and people are freely and openly talk about it. They feel free to talk about issues they are currently undertaking, without being judged negatively. This model is rooted on the idea that people connect and help each other, especially if they share painful and difficult experiences. As a matter of fact the focal point of this model is the vulnerability.

In addition, the fragility model entails that Alphaco tries to support as much as possible the well-being of its employees, especially if their past and present life are extremely though. It is important that individual feels a good working environment and a place where they can feel safe and understood. Organization offers support by exploiting permanent work contracts, after a period of temporary ones. In addition, Alphaco tries to help people feeling vulnerable by offering some benefits. For example, it is trying to help those who find issues in getting a rent by organizing cohousing spaces. "*Fragility is the opportunity*", "*Limits are starting points*", all these sentences are at the core of their communication, meaning that vulnerability is at the core of this company.

Such relevance to vulnerability is suitable to understand the mechanisms behind its institutionalization and the effect on individuals.

Institutionalization of vulnerability: is company affected?

Some preliminary data

In our preliminary study, one of the author spend 3 days on-site visit and administered a surveys to try to understand how people were working in this company, how vulnerability was treated and if the institutionalization was really effective and not a communication and marketing tool. In 2018, company's employees officially recorded and listed to us were 80, while now are more than 100. We manage to collect 60 surveys.

We tried to assess if individuals like the place were they are working, feel free to talk about their vulnerabilities and problems they were experiencing, as well as we tried to check if they were experiencing more satisfaction and happiness since they start to work in that company.

We find some evidence, even if with only 60 surveys, that employees feel highly supported by this organization, feel free to talk about their problems and issues at work and feel more happy, more optimistic for the future, and more satisfied with their life. Institutionalizing and building a business model on vulnerability, seems to be a basis to create nice environment to work into, with strong bonds and support among individuals, who look open to their vulnerability and the related consequences. However, we need to move to a qualitative kind of data, through interviews, to really understand what means for these employees to feel vulnerable, how their organization and job are actually impacting them to unpack the mechanisms behind it. In order to disentangle the mechanisms and understanding deeply how institutionalization works, we plan for follow-up studies in 2020.

Follow-up study (Early 2020)

Given that we have secondary data with a lot of different types of vulnerabilities within this company, as well as people without formal recognition of vulnerability, we are planning to, firstly, validate our vulnerability definition through a case study validation. In line with Welch and colleagues (2016), we exploit the case study to infer if our definition meets the criteria people use to talk about vulnerability. In line with that paper, Alphaco is suitable for our study because it is a "most likely" scenario in which we can find vulnerability. "*Most-likely'' cases are those that ex ante are judged to fit the theory (or more narrowly, for our purpose, the conceptualization) under examination* […] *such cases are* *ideally suited to a critical examination of the original set of attributes*" (Welch, Rumyantseva, & Hewerdine, 2016: 120). This is why we plan to interview employees to validate our definition.

A second step is required also to find evidence on the fundamental role of institutionalization and the related mechanisms. We plan to gather qualitative data, through semi-structured interviews to deeply understand the theoretical mechanisms behind vulnerability and organizations.

DISCUSSION & CONCLUSIONS

Our paper proposal tries to conceptualize individual vulnerability and its possible effects on organizations. Companies generally recognize vulnerability as a weakness and something not desirable, however, given that it belongs to all human beings, we tried to investigate when and how it becomes a strength for the company (Brown, 2011; Mackenzie *et al.*, 2014).

Our main definition of vulnerability lies on the ontological condition of the individuals to be fragile and be at risk of being harmed, as well as on the social components due to external sources that can potentially cause physically and/or emotionally wounds (Chambers & Windschitl, 2004). For that reason, we identify sources of vulnerability as being both inherent and situational, and organizations can build an environment causing vulnerability or exacerbating it. Moreover, we also identify states and consequences of vulnerability on both individuals and on the context around them (which can be organizations). Consequences are often negative because vulnerability is associated to negative emotions and/or physical wounds that can make people even more susceptible to risks (Grubbs & Exline, 2016). These negative consequences impact organizations, both because vulnerable individuals can show lower performances, as well as because they can feel negatively judged or marginalized because of it, thus creating an unpleasant work environment (Brown, 2011). This is why past research always focused on marginalized individuals and poorest as the vulnerable ones (Serbin & Karp, 2004). However, vulnerability has a much broader scope than disability or marginalization because it belongs to everyone to varying degrees. Moreover, because of its universality and its inherent attribute, it is often hidden to organizations, that bear just the negative outcomes of it.

Given all these characteristics of vulnerability, we proposed, based on an initial analysis of a case study, that institutionalizing vulnerability can generate the sense of belonging and unity, turning vulnerability in something bonding individuals, instead, of separating them. This means that on the one hand, acknowledging this common human condition helps in creating an environment that people likes and feel connected to; on the other hand, this creates positive emotions because people feel accepted and similar to everyone, especially in the moments in which vulnerability is effectively occurring. This turns negative consequences of vulnerability in possible good outcomes for firms.

We will exploit future studies to validate our construct and to dig into the main mechanisms to understand if legitimizing the fact that people are vulnerable, and turning the organization in a real "human" environment can be a successful strategy to cope with vulnerability that is inevitable for organizations, which should deal with unplanned and negative consequences of it.

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Table 1 – Vulnerability: human condition of being subject to negative outcomes

Paper	Drug Addiction	Stress-induced eating	Psychopathology	Posttraumatic stress disorder	Stress	Distress
(Koob & Le Moal, 2008	x					
(Greeno & Wing, 1994)		x				
(Leyro, Zvolensky, & Bernstein, 2010)			x			
(Charuvastra & Cloitre, 2008)				x		
(Gunnar & Quevedo, 2007)					x	
(Gallo & Matthews, 2003)						x
(Everitt & Robbins, 2016)	x					
(Ramsay & Woods, 1997)	x					
(Stice & Yokum, 2016)		x				
(Baas *et al.*, 2016)			x			

Paper	Anxiety	Peer-contagion & bullying	Depression	Bipolar	Disease
(Bouton, Mineka, & Barlow, 2001)	x				
(Coyne & Whiffen, 1995)			x		
(Dishion & Tipsord, 2011)		x			
(Johnson & Roberts, 1995)				x	
(Ottaviani *et al.*, 2016)					x
(Bauer, 2015)					x
(Khazanov & Ruscio, 2016)			x		
(Coyne, Thompson, & Whiffen, 2004)			x		
(Schoeler *et al.*, 2018)		x			

Table 2 - Vulnerability Definitions

Paper	Definition
Vulnerability as being susceptible to external context	
(Chorpita & Barlow, 1998)	"*increased likelihood to process events as not within one's control (i.e., a psychological vulnerability)"* page 5
(Pyszczynski, Greenberg, & Solomon, 1999)	"*people sometimes cope with the problem of death by denying their vulnerability to life-threatening conditions*" page 838
(Gerrard, Gibbons, & Bushman, 1996)	"*perceived vulnerability is hypothesized to be the primary motivation for the avoidance of risky behavior and the initiation of precautionary behavior*." page 390
(Harris & Hahn, 2011)	"*people have an optimistic bias concerning personal risk […] that is, they "tend to think they are invulnerable*" page 135
(Chambers & Windschitl, 2004)	Vulnerability to negative events
(Fairbairn *et al.*, 2018)	"*insecure close relationships may serve as a vulnerability factor for the development of later substance problems*" page 1
(Crocker & Wolfe, 2001)	"*contingencies of self-worth are both a source of motivation and a psychological vulnerability*" page 201
(Leventhal & Zvolensky, 2015)	*""reactive" trandiagnostic vulnerabilities, which denote characteristic maladaptive responses to emotion stimuli and states. These types of vulnerabilities play a key explanatory role in emotion experience by: (1) enhancing or diminishing the normative response to emotion stimuli and states, resulting in an excess or deficit, respectively, beyond typical emotional functioning; or (2) altering the type of response to emotion stimuli and states.*" Page 5
(Charles, 2010)	"*The vulnerabilities of aging – defined by reductions in physiological flexibility*" page 22
(Grubbs & Exline, 2016)	"*Emotionally stable entitlement may be particularly well-defended against vulnerability through a more grandiose self- view—a self-view associated with aggression and anger […], whereas emotionally vulnerable entitlement is more prone to the vulnerable emotions associated with threatened egotism (e.g., anxiety, depression)*" page 1214
(Crowell, Beauchaine, & Linehan, 2009)	"*early vulnerability interacts with learning history to shape and maintain dysregulated emotional, behavioral, interpersonal, and cognitive aspects of the "self" and thereby create the "borderline" personality*" page 12
Vulnerability investigated by analyzing the sources	
(Helgeson & Zajdel, 2017)	"*Researchers have also examined a set of factors that predispose a person to have more difficulties adjusting to chronic disease*." Page 555

(Bistricky, Ingram, & Atchley, 2011)	Depression-susceptible groups used interchangeably as depression-vulnerable groups.
(Bakermans-Kranenburg & Ijzendoorn, 2015)	"*The diathesis-stress model suggests that children with a vulnerable constitution (risky genes) and poor developmental experiences (e.g., insensitive parenting, low-quality child care, stressful life experiences) deviate from the developmental pathway of their peers*." Page 385
(Vitaliano, Zhang, & Scanlan, 2003)	"*the term vulnerability has been used to refer to hard-wired characteristics […] such as age, sex, disposition […], race […] and family history and heredity*" page 948
(Hyde, Mezulis, & Abramson, 2008)	"*Our proposed ABC (affective, biological, cognitive) model integrates affective, biological, and cognitive factors into a vulnerability–stress model in which these factors are presumed to confer vulnerability that, in the presence of stress, leads to depression and, specifically, to the gender difference in depression*." Page 292
(Sowislo & Orth, 2013)	Low self-esteem as a vulnerability factor to depression and anxiety
(Belsky & Pluess, 2009)	"*prevailing views that some individuals are simply more vulnerable to adversity than others*" page 886 "*Diathesis-stress frameworks, which regard certain putatively "vulnerable" individuals as more likely than others to be adversely affected by unsupportive contextual conditions but stipulate nothing about differential responsiveness to supportive conditions*." page 887
(Hankin & Abramson, 2001)	The focus of the paper on vulnerability to depression. "*The essence of the cognitive vulnerability-stress model is that an individual with cognitive vulnerability is more likely to become depressed than a nonvulnerable individual when she or he confronts a negative event and interprets the event in a negatively biased manner (dysfunctional attitudes) and/or makes negative inferences about the cause, consequences, or self-implications of the event (negative inferential style)*" page 776-777 "*preexisting distal vulnerabilities: genetic risk, personality, and environmental adversity*." Page 781 Genetic risk "*genetic liability to depressive and overlapping disorders*" page 781 Personality "*a propensity to experience more negative life events and depression may be through genetically influenced personality traits*" page 782 "*Examples of distal negative events as environmental adversity include abuse/ maltreatment, death/illness of a parent, and so forth. Because the number of studies examining various kinds of environmental adversity is too vast to review here, we focus on abuse/maltreatment*" page 782

(Walker *et al.*, 2004)	"*it appears that both genetic and prenatal factors can give rise to constitutional vulnerability. Subsequent neuromaturational processes, especially those that occur during adolescence, and exposure to stressful events can trigger the behavioral expression of this vulnerability*." page 401 "*schizophrenia involves the interplay between brain vulnerabilities and environmental factors*." page 402
(Repetti, Taylor, & Seeman, 2002)	"*Families with these characteristics may create vulnerabilities and may exacerbate certain genetically based vulnerabilities, which not only put children at immediate risk for adverse outcomes (such as is the case with abuse), but lay the groundwork for long-term physical and mental health problems*" page 330
(Miller, Chen, & Parker, 2011)	"These familial dynamics trigger a cascade of psychological vulnerabilities, including deficits in social competence and emotion regulation, and a propensity to compensate for them with health-compromising behaviors." page14
(Carver, Johnson, & Joormann, 2008)	genetic vulnerability as "*a factor present before onset, which interacts with triggers to increase the risk of onset [...] Without adversity, this genetic makeup did not yield depression, but this genetic makeup rendered people reactive to adversity.* " page 23-24
Vulnerability identified by groups of people	
(Zuroff, Mongrain, & Santor, 2004)	Vulnerability linked to sociality "*refers to the person's investment in positive interchange with other people* – page 490" and individuality "*refers to the person's investment in preserving and increasing his independence, mobility, and personal rights; freedom of choice, action, and expression; protection of his domain; and defining his boundaries* - page 490"
(Serbin & Karp, 2004)	"*Understanding the specific processes whereby children living under risk conditions (e.g., family poverty; parental abuse or neglect; and limited parental education, mental health problems, alcoholism, addiction, or criminality) may have either negative or positive outcomes can be very useful in designing preventive intervention programs, or for designing social and educational programs to meet the needs of vulnerable populations*." page 335
(Preston, 2013)	Vulnerable as distressed target, hurt, in need or in danger are those that mostly attract altruistic behavior
(Segerstrom & Miller, 2004)	"*Studies of vulnerable populations such as people with HIV have shown changes in immunity to predict disease progression*" page 20

Table 3 – Vulnerability sources, states and consequences

SOURCES	STATES	CONSEQUENCES
Inherent	Dispositional vs. Occurrent	Individual
Situational	Temporary vs. Permanent	Social

Figure 1 – Vulnerability disability, and marginalized