

ENTREPRENEURIAL ORIENTATION:
THE GOOD, THE BAD, AND THE INTERESTING

by

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A Dissertation Submitted to the Faculty of

The College of Business

In Partial Fulfillment of the Requirements for the Degree of

Doctor of Philosophy

Florida Atlantic University

Boca Raton, Florida

May 2020

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This dissertation was prepared under the direction of the candidate's dissertation advisor, Dr. Donald Neubaum, Department of Management Programs, and has been approved by all members of the supervisory committee. It was submitted to the faculty of the College of Business and was accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

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ACKNOWLEDGEMENTS

I wish to express sincere gratitude to my committee members for all of their guidance and support, and special thanks to Dr. Don Neubaum, my advisor, for his persistence, patience, and encouragement during the entire Ph.D. program. I would also like to thank not only my management Ph.D. cohort but all of the business Ph.D. students during my time at FAU for their continuous support.

ABSTRACT

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Title: Entrepreneurial Orientation: The good, the bad, and the interesting
Institution: Florida Atlantic University
Dissertation Advisor: Dr. Donald Neubaum
Degree: Doctor of Philosophy
Year: 2019

The purpose of this dissertation is to explore the contingencies that alter the link between entrepreneurial orientation (“EO”; a strategic posture characterized by behaviors and attitudes that display innovativeness, proactiveness, and risk-taking) and firm outcomes. While conceptual claims unite on the belief that firms largely benefit from emphasizing innovation through proactive and risky initiatives, the empirical findings on a positive link between EO and performance are inconclusive. As such, several scholars have explored the contingencies that illuminate the boundary conditions to EO, however, most of this research has focused on external contingencies, i.e. those connected to the environment, while internal contingencies, i.e. those connected to the firm, have been fairly disregarded. Not only will the industry and market play a significant role in a firm’s ability to effectively carry out their desired strategic initiatives, so too will firm characteristics, such as communication and culture, as these internal factors are directly

related to the level of value created from strategic actions. Therefore, this dissertation is an attempt to further clarify the boundary conditions of EO by focusing on these firm specific attributes. Chapter two, titled “Family communication patterns and entrepreneurial orientation in family firms” exposes the impact of specific family communication patterns on the performance outcomes from an entrepreneurial orientation. This chapter contributes to the corporate entrepreneurship literature, by confining the positive effects of EO to certain firm specific characteristic, as well as to the family business literature by further demonstrating the heterogeneity between family firms. Thereafter, chapter three, titled “Entrepreneurial orientation, organizational culture, and firm performance: The importance of a balanced approach”, argues and tests the importance of organizational culture, as defined by the competing values framework, as a contingency variable of the EO-performance relationship. This empirical chapter exploits a configurational approach, using fuzzy set Qualitative Comparative Analysis (“fs/QCA”) to analyze the arrangements of different entrepreneurial orientation and organizational cultures that yield superior performance. Through this exploration, I advance research on the EO-performance relationship by integrating the firm’s corporate culture as a means of alleviating concerns with resistance by certain stakeholders to the ambiguity associated with entrepreneurial ventures.

DEDICATION

This dissertation is dedicated to my family and friends for their support and self-sacrifice during my time in the Ph.D. program.

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CHAPTER I. DISSERTATION INTRODUCTION

Prior literature suggests that an emphasis on entrepreneurial orientation (EO) yields mixed effects in terms of firm performance outcomes (Wales, 2016; Wiklund & Shepherd, 2011). In other words, firms that place prominence on strategic positions comprised of risk-taking, innovative, and proactive behaviors (the three sub dimensions of EO; Miller, 1983; Covin & Slevin, 1989, 1991), encounter inconclusive performance results, ranging from total successes to complete failures (Wales, 2016). In order to explore some potential reasons behind the diversity of expected outcomes from pursuing EO, my dissertation, comprised of two separate research papers, explores two potential contingencies that may alter the link between EO and firm performance. Combined, the two papers address *the potential good* that may result from employing an entrepreneurial orientation strategic posture, *the potential bad* that can result from employing such a strategy, and *the interesting* contingencies that delineate the boundary conditions of the EO construct—clarifying when the good outcomes are more likely to occur.

The first paper (chapter two) focuses on the family firm as a context and explores how the type of communication pattern exemplified by the family firm may play a role in whether an entrepreneurial strategy leads to improved family firm performance. Families develop over time and have been regarded as social units that create their own symbolic domains, or distinct sets of social definitions and meanings that characterize the work setting (Schultz, 1991), which significantly impact the behaviors and relationships of those linked to the family (Sciascia, Clinton, Nason, James, Rivera-Algarin, 2013).

Communication is one such important symbol created by the family as part of a transactional process to create, send, receive, and interpret information. The quality of family functioning, and consequently family firm functioning, is dependent on family communication as the family and business form a joint system in which family-based values, beliefs, and standards communicated throughout the firm can influence the effectiveness of business decisions (e.g., Davis & Stern, 1981; Davis, 1983). According to family communication patterns theory, effective family functioning is dependent upon the family's ability to create a shared social reality. This shared reality is created when family members' thoughts and cognitions of reality are accurate and in agreement, which increases the family's understanding and can support more efficient interactions and fewer misunderstandings and conflict.

This shared reality is created through two communication processes, namely conversation orientation and conformity orientation. *Conversation orientation* is characterized by frequent, spontaneous, unconstrained interactions that encourage all family members to engage in the process of defining the family's shared reality. Conversation orientation represents the degree to which free interaction and participation in discussions are encouraged within the family system. *Conformity orientation* is characterized by the extent to which beliefs and attitudes are shared by family members. High conformity orientation reflects obedience and harmonious relationships between parents and children, often based on the desire to maintain the family hierarchy. Conformity is represented by the extent to which homogeneity in attitudes, beliefs, behaviors, and values (Koerner & Fitzpatrick, 1997), and is often defined by those in positions of authority (i.e., parents and elders). These two family communication

orientations intersect to form a typology of four types of families (consensual, pluralistic, protective, and laissez-faire: Fitzpatrick & Ritchie, 1994; Koerner & Fitzpatrick, 2002a, 2002b) and these family communication orientations have been shown to influence the firm by shaping confidence, decisions making capacity, and leadership abilities (Jaskiewicz, Combs, Shanine, Kackmar, 2017), all which can play a part in how well strategies are carried out within that firm. Communication is an important means to implement a firm's strategy as the social interactions involved in transferring information allow for organizational participants to jointly address and co-orient themselves with strategic initiatives and activities (Ocasio, Laamanen, & Vaara, 2018). Communication specifically shapes the ways in which organizational actors think, feel and act, which have a marked influence on the implementation of strategic initiatives (Ocasio et al., 2018). Hence, different combinations of conversation and conformity communication patterns within the family firm can influence the effect of an entrepreneurial strategy on firm performance as implementing entrepreneurial strategic missions requires communication styles that can facilitate the movement and utilization of the best and most comprehensive information regarding the investigation and development of opportunities (Covin, Slevin, & Schultz, 1994). The conceptual arguments in this paper contribute to both the EO and the family business literatures by drawing upon the field of family science, which investigates the structures, relationships, processes, and outcomes of families at large, to develop a richer theoretical model of the effect of EO on the performance of family firms. This research bridges the entrepreneurship and family firm literatures to offer additional support for the heterogeneity of family firms by exploring

different types of family firm communication patterns and their role in effectively carrying out entrepreneurial strategies.

Next, while some scholars have empirically examined the boundaries conditions of entrepreneurial orientation, they have typically focused on external moderators of the EO—performance relationship, such as national culture (Argbaugh, Cox, & Camp, 2005; Rauch, Wiklund, Lumpkin, & Frese, 2009) and environmental dynamism, turbulence, and hostility (Covin & Covin, 1990; Dess, Lumpkin, & Covin, 1997; Wiklund & Shepherd, 2005). However, the inquiry into internal strategic factors (i.e., factors related to the firm and not the environment) that can affect the relationship between EO and firm outcomes is in need of investigation (Wales, 2016; DeClercq, Dimov, & Thongpapanl, 2010). For example, as noted by Covin and Slevin (1991), organizational structure, leadership, resources, and culture are key internal factors to consider when researching entrepreneurial orientation as these factors connect and influence almost everything that people do within the organization. Specifically, the authors note that “[a]n organization’s ability to develop and maintain an entrepreneurial posture is contingent upon that organization’s culture” (p. 16) such that culture can affect the ability of the firm to engage in, and the effectiveness of carrying out, entrepreneurial activity. However, empirical evidence of such a statement is negligible, if not omitted, in the literature. Therefore, in the second paper (chapter three) I empirically assess organizational culture, a social characteristic within the firm that influences behavior (Hartnell, Ou, & Kinicki, 2011), and its impact on the EO-performance relationship. In order to conceptualize and operationalize organizational culture, I utilize the popular competing values framework (CVF) first introduced by Quinn and Rohrbaugh (1983) and later further developed by

Cameron, Quinn, Degraff, and Thakor (2014), to identify four dimensions of corporate culture—namely, collaboration, control, competition, and creation. A core assertion of the CVF is that assimilating competing cultural ideals—such as integrating competition with cooperation—will lead to increased value creation (Cameron et al., 2014). As such, I examine whether organizations that emphasize risk-taking, newness, responsiveness (which, by definition, involve change and unpredictability) also require some level of predictability and reliability in their culture to yield lasting value. More specifically, firms that combine an emphasis on EO with cultures that stress open communication, effectiveness, efficiency, and consistency in processes (i.e., collaborate and control cultures) may have stronger performance outcomes than those firms that simply emphasize innovative outputs, profitability, and constant change.

To further add to the literature in this empirical study, I utilize a novel yet proven statistical analysis to understand the relationship between EO, culture, and firm performance. Capturing performance outcomes of complex interdependencies between strategic postures and internal firm constructs, such as organizational culture, using commonly employed methods, such as ordinary least squares (OLS) regression models, is often difficult. This is mainly due to the traditional methods' focus on isolating the net, independent effects of single explanatory factors on performance. Conversely, configurational approaches identify the combinations of these complex interdependencies that bring about the particular outcome of interest (Ragin, 2008). For example, instead of traditional OLS findings that display significant positive or negative correlations between each independent variable and the outcome, the findings of a configurational approach display what combinations of input variables are associated with a particular outcome. As

such, the empirical study in chapter three exploits a configurational approach, using fuzzy set Qualitative Comparative Analysis (fs/QCA) to analyze the arrangements of different entrepreneurial orientation and organizational cultures that yield superior performance. The method evaluates the number and the complexity of alternative paths leading to the desired outcomes, which in this case is the performance that results from different combinations of strategy and culture dimensions. The appropriateness of using fs/QCA in this research lies in the notion that firms can engage in all or just one of the four competing value framework culture types, and thus it is pertinent to understand how culture and EO causes combine to bring about a certain outcome. Fs/QCA can handle the significant levels of causal complexity represented in the combination of EO and culture (e.g., Fiss, 2007, 2011; Ragin, 2008). This study improves our understanding of the EO-performance relationship by integrating the firm's corporate culture as a means of alleviating concerns with the ambiguity from the strong emphasis on originality associated with entrepreneurial initiatives within a firm. Culture may be a way to provide predictability and reliability that combined with the entrepreneurial strategy can yield lasting value. In other words, as a firm continues to differentiate itself through risky and proactive innovations (behaviors and attitudes related to EO), it will be more successful if it also integrates each of those differentiated segments through common, overriding visions and communications that create a form of consistency (e.g., through collaborate and potentially controlling cultures).

CHAPTER II. FAMILY COMMUNICATION PATTERNS AND ENTREPRENEURIAL ORIENTATION IN FAMILY FIRMS

Introduction

Management, entrepreneurship, and family business scholars have recently been urged to pay more attention to the impact that *families* can have on organizational members and key organizational outcomes within family businesses (Jaskiewicz, Combs, Shanine, & Kackmar, 2017). Family science, an academic field that originated outside the traditional organizational literature and that studies families, their relationships, processes, and communication patterns, etc., can provide a deeper understanding of the family involved in the firm which, in turn, can improve our insights on the functioning of the family business. Despite several calls for organizational scholars to leverage family science theories (Jaskiewicz et al., 2017; Aldrich & Cliff, 2003; Dyer, 2006; James, Jennings, & Breitzkreuz, 2012; Olsen, Zuiker, Danes, Stafford, Heck & Duncn, 2003; Rogoff & Heck, 2003), these appeals have largely gone unanswered. By failing to draw upon family science research and its rich descriptions and examinations of families and their functioning, opportunities to develop more robust family firm theoretical models are neglected.

Families are “the most important and enduring of all human social groupings” (Smith, Hamon, Ingoldsby, & Miller, 2012: p. 5) and these social units create their own symbolic entities which significantly impact the behaviors and relationships of those connected to them (Sciascia, Clinton, Nason, James, & Rivera-Algarin, 2013).

Communication is one such important symbol designed by the family as part of a transactional process to create, send, receive, and interpret pertinent messages. For family communication scholars in the family science field, “communication is situated at the heart of family processes” (Segrin & Flora, 2005: p. 4). The authors also note that “even couples that know each other well often resort to lengthy exchanges in order to understand each other” (p. 16)—demonstrating that the quality of family functioning is dependent on family communication. Family functioning is so reliant on communication patterns that these patterns have successfully predicted everything from family interactions about advertising, violence, music, politics, shopping, and religion to family members’ conflict behaviors, affection, deception, power use, aggression, interpersonal skills, individual general well-being and health, and overall life satisfaction (for a detailed review, see Koerner & Fitzpatrick, 2002b and Schrodt, Ledbetter, & Ohrt, 2007). Consequently, family firm functioning is also dependent on communication as the family and business form a joint system in which family-based standards communicated throughout the firm can influence the effectiveness of business decisions (e.g., Davis & Sterns, 1981; Davis, 1983).

As communication is defined here as a transactional process to create, send, receive, and interpret significant information, it is an ongoing, complex, shifting activity (Segrin & Flora, 2005). Family communication is continuous and involves unique past experiences, present realities, and future desires. Rather than trying to understand the family from one specific instance of communication or from simply one or two family members, the family and its style of communication should be appreciated as a whole (Segrin & Flora, 2005). The current research utilizes family communication patterns

theory (Ritchie, 1991; Fitzpatrick & Ritchie, 1994; Ritchie & Fitzpatrick, 1990), which originated in the family science literature, to understand the family and its communication process and argue that varying communication patterns within a family business offer different advantages and disadvantages when it comes to the efficacy of strategic choices. Family communication patterns theory specifies two communication dimensions: conversation and conformity. Conversation represents the degree to which free interaction and participation in discussions is encouraged within the family system while conformity is represented by a family firm culture that emphasizes homogeneity in attitudes, beliefs, behaviors, and values (Koerner & Fitzpatrick, 1997). These family communication patterns have been shown to influence the firm by, for example, shaping confidence, decision-making capacity, and leadership abilities (Jaskiewicz et al., 2017), all which can play a part in how well entrepreneurial strategies are carried out within the firm as (a) confidence can lead to higher-quality decision making when facing little tangible evidence in new business venturing environments (Ensley, Carland, & Carland, 2000), (b) decision-making capacity can lead to the effective and efficient implementation of an entrepreneurial strategy by better handling the uncertain situations in which typically established knowledge and information are missing (Lumpkin & Dess, 1996), and (c) leadership abilities represent crucial integrating and aligning mechanisms in successful entrepreneurial strategy implementation as employees face unfamiliar territory (Engelen, Gupta, Strenger, & Brettel, 2015). As such, the execution of entrepreneurial orientation is one such family firm strategic initiative that can be influenced by family communication patterns. For example, constructive, open dialogue where information and ideas flow not only top-down (from managers to employees) but

also bottom-up (from employees to managers) encourages a discussion that approaches issues from multiple, alternative perspectives which can lead to more valuable innovations (Jehn, 1995; Jehn & Bendersky, 2003). In other words, effective communication is pertinent to implementing strategic missions as communication styles can facilitate the flow and utilization of the best and most complete information (Covin, Slevin, & Schultz, 1994). The question explored in the current research is: which combinations of conversation and conformity communication patterns are most beneficial for carrying out an entrepreneurial strategy in a family firm?

This research offers several contributions to the corporate entrepreneurship and family business literatures. First, I offer additional support for the heterogeneity of family firms by exploring different types of family firm communication patterns and their role in effectively carrying out entrepreneurial strategies. This research answers calls in the literature such as that from Chua, Chrisman, Steier, & Rau (2012) advocating for scholarly development from simply comparing family businesses and nonfamily businesses to a greater focus on within-group differences of family firms. By better understanding family communication patterns as a unique identifier across which family firms vary, scholars gain not only more appreciation for the heterogeneous landscape of such firms but also a better toolkit with which to offer more specific prescriptions for family firms, which comprise such a large segment of businesses worldwide (Sanchez-Ruiz, Daspit, Holt, & Rutherford, 2019). We can develop richer theoretical models around the heterogeneity of family firms by borrowing from the vast amount of noteworthy family science research. The family science literature offers significant

knowledge on how families function which can greatly improve our understanding of how family firms function.

Furthermore, I help bridge the entrepreneurship and family firm literatures by exploring the consequences of entrepreneurial orientation as altered by the uniqueness of family communication designs. As Lumpkin, Brigham, and Moss (2010) note, “there has been a surprisingly small amount of research on entrepreneurship in family firms” (p. 245) while the need for firms to engage in entrepreneurial activities in order to survive long term is even greater in family firms with a vision to prosper, frequently across generations. Entrepreneurial behaviors carried out in a family firm are altered by the family firm’s unique organizational identity, styles, and resources (Short, Payne, Brigham, Lumpkin, & Broberg, 2009) and as such it is important to understand the influence of these unique attributes, such as patterns in communication, on how well entrepreneurial acts are performed. Researchers have examined the relationship between the family of origin’s high versus low conversation patterns along with high versus low conformity patterns and several family and firm outcomes, such as individual confidence, decision-making capacity, ability to manage conflicts, leadership, involvement in the business, and innovativeness of the firm (e.g., Koesten, 2004; Carmon & Pearson, 2013; Sciascia et al., 2013). As noted by Jaskiewicz et al. (2017), however, “it seems likely that the communication patterns adopted from a family of origin might interact with other variables in complex ways” and “management scholars might find it particularly fruitful to investigate how the current family’s communication... impacts...the workplace” (p. 317). As such, I add to the literature an examination of how family communication patterns interact with an entrepreneurial strategy to influence firm performance.

Literature Review

Family Communication Patterns Theory

Compared to nonfamily firms, family firms have specific ways in which the members interact and communicate (Fitzpatrick & Ritchie, 1994). Through this unique interaction and communication, family firms have the potential to gain firm members' commitment to agreed-upon strategies, such as an entrepreneurial posture, and this commitment can improve the quality of the firm's strategic decision making (Kellermans, Eddleston, Barnett, & Pearson, 2008). Family communication patterns theory (Ritchie, 1991; Fitzpatrick & Ritchie, 1994; Ritchie & Fitzpatrick, 1990) describes the family-specific approaches to interaction and communication within families. These approaches are conceptualized as encompassing both family beliefs and family behaviors as equivalent components of the family communication pattern (Koerner & Fitzpatrick, 2002b). In other words, while some may argue that the actual behaviors related to communication might not directly align with the beliefs about the family communication orientation, Koerner and Fitzpatrick (2002b) argue that they are interdependent concepts, where behavior is not entirely dependent on cognitions and cognitions are not merely a reflection of social processes. Instead, "each impacts the other and, in turn, is itself impacted by the other" (p. 39). Thus, the beliefs that family members have about family communication and the actual communicative manners they engage in are closely interlaced and are both represented in family communication styles.

According to family communication patterns theory, family behavior expectations are dependent on two dimensions of family communication patterns: (a) conversation pattern, which is the degree to which family members are encouraged to interact freely

with one another and participate in discussions on a wide variety of topics and (b) conformity pattern, which refers to the degree of homogeneity in a family culture in terms of attitudes, beliefs, and values (Koerner & Fitzpatrick, 1997, 2002). Family firms embodying a high conversation communication pattern encourage the exchange of ideas, the examination of various opinions during a dispute, and the expression of feelings. These types of family firms are full of spontaneity in their conversations and they believe that rich social interaction through frequent communication is essential for healthy relations and strong bonds. Parents use extensively open communication as a way to teach and socialize their children. As the family plans to engage in actions or activities, the preparation involves discussion with all members involved and decisions are made as a collective unit. On the other hand, families low on conversation orientation interact only occasionally, avoid many subjects altogether, and do not share information regarding all topics with the entire family (Koerner & Fitzpatrick, 1997). Seeking collective voice is not of priority to family firms low on conversation orientation and values, feelings, and attitudes are typically kept to themselves. In these families, everyone's input is not sought in family decision making (Koerner & Fitzpatrick, 2002b).

When it comes to conformity orientations, family firms embodying a high conformity communication pattern intend to influence family members to coalesce to a single particular attitude, belief, or value (Koerner & Fitzpatrick, 1997). These families emphasize a unified opinion and attempt to avoid conflict. When intergenerational communication occurs, the exchanges in these families reflect obedience to elders. Family relationships and opinions are also highly valued over external relations. Such families retain hierarchical and cohesive family structures with a strong emphasis on

compliance (Sciascia et al., 2013). High conformity orientation families also believe that individual agendas should be coordinated among all family members to capitalize on time spent with the family. On the other hand, families low in conformity are characterized by a lack of interdependence and heterogeneous beliefs and emphasize the importance of external relations as equal to those of internal ones. These families emphasize individuality, and intergenerational exchanges involve communication that reflects the equality of all members (Koerner & Fitzpatrick, 2002b). They also believe that personal space should be valued, and personal growth should be encouraged, even if it leads to strong relationships developed outside the family unit.

It is important to note that family firms can highly emphasize (or deemphasize) both types of communication patterns at once (Sciascia et al., 2013) and to study the full impact of communication orientation on family firm outcomes, neither conversation nor conformity communication pattern should be reviewed in isolation (Koerner & Fitzpatrick, 2006; Ritchie & Fitzpatrick, 1990). As shown in Figure 1, these two family communication orientations can intersect to form a typology of four types of families: consensual, pluralistic, protective, and laissez-faire (Fitzpatrick & Ritchie, 1994; Koerner & Fitzpatrick, 2002a, 2002b). Families high in both orientations, conversation and conformity, are considered *consensual*. Consensual families are characterized by communication orientations that put, on one hand, pressure to agree and to preserve hierarchical influences counter to, on the other hand, an interest to explore new ideas through open communication. In these families, younger members' thoughts and ideas are valued and open conversation is encouraged however, elders still make most of the decisions (Koerner & Fitzpatrick, 2002b). Decision making outcomes are then explained

to those in a lower rank of the hierarchy through great effort in the hopes that they will understand the reasoning, values, and beliefs behind those decisions. Further, elders' beliefs and values are likely to influence how other members are persuaded by messages, where only those messages that are similar to what has been emphasized in communication within the family are accepted and messages that are dissimilar from stated positions or values will be rejected.

Insert Figure 1 about here

Families with communication patterns characterized by high conversation orientation but low conformity orientation are labeled *pluralistic*. Pluralistic families emphasize open, unconstrained discussions that involve as many family members as would like to be involved (Koerner & Fitzpatrick, 2002a, 2002b). There is no desire from the elders to be in control of their children's lives or to make decisions for them. Family members are autonomous in terms of communication, meaning they are unconstrained in their communication amount and matter with the family. Ideas and opinions are evaluated not based on who in the family supports them but instead on the quality of the arguments that support them. In other words, it is not only the elders' say that is important and children fully and equally participate in the decision making process attached to the family (Koerner & Fitzpatrick, 2002b). Children in pluralistic families learn to value the opinion of others while, at the same time, learn to be objective and autonomous, which cultivates their competence in communication skills and their confidence in their ability to make quality decisions for themselves (Koerner & Fitzpatrick, 2002a, 2002b). As a

result, children in pluralistic families are most likely influenced by messages that contain rational arguments, compared to those that are merely similar or dissimilar to the values and standards communicated in the family.

Families with communication patterns characterized by low conversation orientation but high conformity orientation are labeled *protective*. Protective families emphasize obedience to elder authority and devalue open communication within the family (Koerner & Fitzpatrick, 2002a, 2002b). Elders in these families believe they should be making all decisions related to the family and the children, without concern to explain their reasoning. Children in these families discover that there is little value in trying to add to family conversations and they learn to distrust their own ability to make decisions. As a result, children from protective families are easily influenced by outsiders, no matter the quality of the argument or message.

Lastly, families with communication patterns characterized by both low conversation and low conformity orientations are labeled *laissez-faire*. Laissez-faire families are indicated by few interactions that usually involve only a limited number of members and that typically concern a restricted number of topics. Parents in these families believe that all members should be able to make their own decisions without the need for input from other members. Unlike parents in pluralistic families, laissez-faire parents do not believe there is a need to communicate with their children and they have little interest in their children's decisions. Children of these families discover that there is no need to join family conversations, if they even take place, and they learn to make their own decisions. Also, since they don't receive much support from their parents over the years, they tend to be influenced by peers and other external sources in their information

processing and decision making (Koerner & Fitzpatrick, 2002b). Most laissez-faire family members are “emotionally divorced for their families” (Koerner & Fitzpatrick, 2002a: p. 87) and as such are rational in their decisions regarding the family.

As discussed, a family’s communication style can play a part in how well strategies are carried out within the firm as the family and business form a joint system in which family-based values and principles communicated throughout the firm can influence the effectiveness of business decisions (e.g., Davis & Sterns, 1981; Davis, 1983). Communication is an important means to implement a firm’s strategy as the social interactions allow for organizational participants to jointly address and co-orient themselves with strategic initiatives and activities (Ocasio, Laamanen, & Vaara, 2015). In other words, communication shapes the ways in which organizational actors think, feel and act, which have a distinct influence on the implementation of strategic initiatives (Ocasio et al., 2015). The execution of entrepreneurial orientation is one such family firm strategic initiative that can be influenced by family communication patterns since implementing entrepreneurial strategic missions requires communication styles that can facilitate the flow and utilization of the best and most complete information regarding opportunity exploration and exploitation (Covin, Slevin, & Schultz, 1994).

Entrepreneurial Orientation

Broad interest in the field of corporate entrepreneurship was sparked when Miller (1983) presented a conceptualization of entrepreneurial orientation which represents the processes, practices, and decision-making activities that lead to the instigation of new opportunities within a firm. Since its adoption into the corporate entrepreneurship field in 1983, entrepreneurial orientation has been expansively studied and is now considered a

well-established strategic concept (Covin & Slevin, 1989, 1991; Wales, 2016). Miller (1983) originated this entrepreneurial approach to strategic management by positing that entrepreneurial firms are simultaneously pursuing innovation, participating aggressively in new markets, and tolerating a degree of strategic and/or financial risk. The literature delineates between entrepreneurial and conservative firms according to their overall strategic posture which includes decision-making practices, managerial philosophies, and strategic behaviors that are entrepreneurial in nature (Anderson, Kreiser, Kuratko, Hornsby, & Eshima, 2015). In other words, entrepreneurship in these firms is more than a simple singular act or activity, such as launching a new product, and instead involves overall behaviors and mindsets that are innovative, proactive, and risk-taking. EO should be viewed as a unique, identifiable strategy demonstrated by organizations (Wales, 2016).

Advancing Miller's (1983) work, Covin and Slevin (1989, 1991) suggested that the strategic behavioral tendencies of a firm exist on a continuum—ranging from more conservative to more entrepreneurial. The Miller/Covin & Slevin conceptualization is that firms high in EO are those that concurrently demonstrate behaviors related to innovativeness, proactiveness, and risk-taking—innovativeness referring to the extent to which firms introduce new products, processes, routines, etc., proactiveness referring to the extent to which firms actively anticipate environmental shifts and seek market leader positions, and risk-taking referring to the extent to which firms comfortably initiate new, bold, and uncertain actions (Covin & Slevin, 1991). Others have argued, however, that the simultaneous nature of all three subdimensions of EO is not necessary and that understanding the independent effects of these subdimensions may provide considerable insights into the distribution of performance results (e.g., Wales, 2016). A company can

simultaneously display high levels of one dimension along with relatively low levels of another (Wales, 2016; Lumpkin & Dess, 1996). Understanding such variances between the components may be essential in explaining firm outcomes, and as such, each subdimension is considered separately in the current research. Furthermore, understanding how firms can more effectively manage new possible avenues for firm growth, through for example communication orientations of the family firm, remains an important area for future research (Wales, 2016).

Innovativeness and Communication in Family Firms. Firm innovativeness, referring to firm efforts to discover new opportunities and unique solutions (Covin & Slevin, 1991), is challenging to effectively manage (Dess & Lumpkin, 2005). Innovativeness is an important driver of enhanced performance in family firms, but some scholars have found that certain characteristics of the family or firm, such as when the family is strongly involved in the business (Bergfeld and Weber 2011; Kellermanns, Eddleston, Sarathy, & Murphy, 2012), or when family-related goals are strong (Kallmuenzer, Strobl, & Peters, 2018), can enhance or diminish this positive link. For example, the use of control mechanisms has been argued to align non-owners' and owners' preferences through specific monitoring and evaluation procedures (Sieger, Zellweger, & Aquino, 2013; Eisenhardt 1989), enhancing the execution results of innovation. Further, family firms that are innovative while also maintaining long term goals may enhance their performance results (Lumpkin et al., 2010).

Family firm communication patterns can also play a role in how well family firms carry out innovative initiatives. A study by Eddleston and Kellermanns (2007) found that family firm performance improved when other family members were prompted by

owner-managers to be more involved in the business as this involvement makes them more apt to understand the challenges and opportunities that the firm may face (Zahra 2005). This higher involvement may potentially be accomplished through a high conversation orientation that encourages members to participate in discussions on a wide variety of topics. Innovative philosophies and behaviors also contain a creative element that requires individuals to take initiative in the generation, exploration, championing, and application of innovative ideas (Amabile, 1988; Scott & Bruce, 1994). However, the ability of an individual or group to be innovatively creative is dependent on knowledge and expertise in the area of interest (Amabile, 1988; Woodman, Sawyer, & Griffin, 1993). Again, knowledge and expertise can be transferred within the firm through a high conversation orientation. Furthermore, the quality of creative ideas is related to the quantity of ideas. As noted by Johansson (2017), “the most successful innovators produce and realize an incredible number of ideas. The strongest correlation for the quality of ideas is, in fact, quantity of ideas” (p. 91). Through a high conversation pattern, which will encourage involvement from multiple members of the family firm, the family has a higher chance for the number of ideas to rise and innovative decisions can be made with additional knowledge of the opportunity at hand. In other words, the management of knowledge through a high conversation pattern may be required to integrate that knowledge such that the innovative behaviors are carried out in an effective and efficient manner. The knowledge resources gained through the highly interactive conversation pattern become organizationally embedded and can improve the efficiency and effectiveness of firm behaviors (Eisenhardt & Martin, 2000; Teece, Pisano, & Shuen, 1997). As family members are encouraged to interact freely with one another and

participate in discussions on a wide variety of topics, they are more likely to not only increase the number of innovative ideas but also appreciate the purpose, the goal, and the appropriate means of carrying out the introduction of new products, processes, routines, etc. that have been adopted in the family firm.

On the other hand, conformity communication patterns may have negative effects on the innovativeness-performance link in family firms. If high conformity patterns are emphasized in the family firm, there will be a lack of diversity in ideas which may lead to ineffective attempts at innovation (e.g. Kellermans et al., 2008). Not only does quantity of ideas matter for quality of innovation, but so does diversity of ideas (Johansson, 2017). If members of the family firm are in any way pressured to agree with others and preserve the family hierarchy, they are less likely to speak up with unique and novel suggestions. Diversity brings together different concepts from different viewpoints which can set off an exponential increase of unique concept combinations, a true explosion of ideas. With a lower quantity of ideas comes the potential for lower quality ideas (Johansson, 2017). Low conformity orientation also creates an ecosystem within the firm where decisions are made based on the quality of the arguments to support them. In order to enrich the outcomes of innovative philosophies and behaviors, a family should emphasize a communication orientation where all members are involved in open, unconstrained communication and decisions are based on the merit of arguments presented. Taking the above arguments, I suggest that a pluralistic family is best to improve innovative strategies:

Proposition 1: The relationship between innovativeness and family firm performance will be strongest in firms with pluralistic families in control.

Proactiveness and Performance in Family Firms. Proactiveness, or the firm's active anticipation of changes in the marketplace that can offer opportunities for positive transformation (Covin & Slevin, 1991), has been regarded by scholars as a distinctive aspect of family firms' entrepreneurial behavior (Nordqvist, Habbershon, & Melin, 2008; De Massis, Chirico, Kotlar, & Naldi, 2014). Proactivity in family firms directly influences the performance of new products (Avlonitis & Salavou, 2007). While proactiveness can advance family firm performance, the link has been found to be dependent on several firm variables such as the age of the firm (De Massis et al., 2014) or the type of proactive action selected (Martin & Lumpkin, 2003)— what is missing is an investigation into variables that are family firm specific, such as family communication patterns.

Proactive behaviors represent a form of quick action pioneering, or the willingness to explore a potential new market opportunity before others (Lumpkin et al., 2010). Pioneering would be unachievable if conversation and conformity patterns were highly emphasized within the family firm as the excessive encouragement to participate in discussions and the internal firm philosophy to conform to other's ideas would hinder the inclination and enthusiasm to quickly (without the need to discuss with others in the firm) forge a new path externally to discover a novel market opportunity. Without flexibility in decision making processes, family firms would not be able to maximize the potential benefits of a proactive orientation (Lumpkin et al., 2010; Craig, Dibrell, & Garrett, 2014). Therefore, a low conformity communication pattern that deemphasizes control over family firm members by supposing that others are not necessary to be involved in all decisions making processes is most beneficial for effective proactivity.

The lack of hierarchy represented in a low conformity orientation will enhance the flexibility needed for the firm to quickly adjust their strategic plans and pursue opportunities generated as a result of environmental change (Craig et al., 2014). Similarly, a low conversation orientation that emphasizes the belief that all members have the ability to make their own decisions is beneficial for effective proactivity as this pioneering behavior requires a quick response to explore an opportunity before others and if families emphasized the need to involve all members in the decision making process, the ability to make rapid decisions decreases. Even if discussions are required to change the strategic plan of the family firm, a low conversation orientation will make it such that only impromptu, informal meetings will be necessary, allowing the firm to quickly respond to the environmental change (Craig et al., 2014). As such, an emphasis on low conversation patterns and low conformity patterns (a laissez-faire family) is most beneficial to turn proactive behaviors into improved performance. Furthermore, as members of laissez-faire families typically look for external sources for information, they may be exposed to additional opportunities that aren't typically seen by family firms which highly emphasize the importance of internal conversations. The above arguments lead to the following proposition:

Proposition 2: The relationship between proactiveness and family firm performance will be strongest in firms with laissez-faire families in control.

Risk-Taking and Performance in Family Firms. In the context of entrepreneurial orientation, risk-taking is represented by a willingness to venture into the unknown, ripe with uncertain outcomes (Covin & Slevin, 1991). This type of strategic behavior could include investing in unproven opportunities or entering untested markets where unknown

levels of demand exist. Some research maintains that family firm risk-taking is positively associated with firm performance as those opportunities with uncertain outcomes have the highest chance for success (Rauch et al. 2009: Rauch, Wiklund, Frese, & Lumpkin, 2004) while others argue that there is a negative association between the two potentially due to adverse reactions to the uncertainty related to the risk (Casillas, Moreno, & Barbero, 2010; Naldi, Nordqvist, Sjoberg & Wiklund, 2007; Kallmuenzer et al., 2018). The different findings suggest that the relationship between risk-taking and performance in family firms may depend on certain family firm specific elements, such as communication styles.

Similar to innovativeness, I contend that the effects of risk-taking in a family firm are improved with a communication pattern characterized by high conversation and low conformity. High conversation orientations in which family firm members are encouraged to participate in discussions frequently may reduce the uncertainty involved in risk-taking. The management of knowledge through a high conversation pattern may be required to integrate that knowledge such that the risk-taking behaviors are carried out in an effective and efficient manner. Effective and efficient performance following risk-taking strategic behaviors in family firms with high conversation patterns results due to the reduction in uncertainty by gaining diverse perspectives and knowledge of the opportunity. As the family influence is dispersed in the firm through the high conversation orientation, it can help define the strategic opportunities that are acceptable, potentially limiting opportunities that are deemed too risky due to the possible negative consequences related to that opportunity (Craig et al., 2014). Further, as interests are aligned through high conversation orientations, calculated risk taking is valuable to the

family firm due to the agreement on the necessary resources that can be devoted to explore promising ideas and implement them with a better understanding of the potential outcomes (Zahra, 2005).

Low influence on conformity orientation is also necessary in order to allow a certain level of freedom to pursue risky initiatives. Low conformity is the belief that ideas and opinions are evaluated, and decisions are made, based on the quality of the arguments that support them, not based on who supports them, even if that person is higher in the hierarchical chain. High conversation combined with low conformity (i.e. pluralistic families) gives firms members the power to bring forth ideas for strategic change and have them formally yet fairly examined. Thus, communication patterns characterized by high conversation, yet low conformity are pertinent to convert risk-taking into improved performance. These pluralistic families create social settings in which members learn to value the opinion of others while still believing in their ability to make quality, rational decisions. See Figure 2 for a summary representation of the conceptual arguments.

Proposition 3: The relationship between risk-taking and family firm performance will be strongest in firms with pluralistic families in control.

Insert Figure 2 about here

Discussion

This research aims to emphasize the importance of family communication patterns on family firm outcomes and to contend that the performance of an entrepreneurial strategy within a family firm is dependent on which communication

patterns are emphasized. Previous research related to the corporate entrepreneurship literature recognizes the essential role of employee's bottom-up initiatives for advancing the organization's current situation and generating solutions to current obstacles (Burgelman, 1983; De Clercq, Castaner, & Belausteguigoitia, 2011; Monsen & Boss, 2009). As such, family firms may require "buy-in" from employees in order to successfully carry out entrepreneurial strategies and reduce the uncertainty that may result from such a strategy. The firms may garner this cooperation and support through specific combinations of conformity and collaborative communication patterns. For example, "buy-in" for innovative and risk-taking strategies that require a number of diverse ideas in opportunities with uncertain outcomes is more likely to result from family firm communication patterns represented by high conversation and low conformity. These pluralistic families emphasize open communication which can increase the number and quality of diverse ideas presented and has the potential to reduce uncertainty based on the unconstrained nature of discussions. When members of the family firm know that they can discuss opportunities and their opinions will be judged based on the quality of their arguments, they are more likely to associate positive experiences related to the entrepreneurial strategy. "Buy-in" for proactive strategies, which require quick action to exploit new opportunities, is more likely to result from family firm communication patterns represented by low conversation and low conformity. These laissez-faire families emphasize the belief that all members have the ability to make their own decisions and that it is not necessary for others to be involved in each decision made. This hands-off approach to communication creates a culture where members feel empowered to make decisions without the need to confer with their

superiors, and this ability to react quickly is important for the success of proactive strategies.

This research contributes to both corporate entrepreneurship and family business literatures. First, I offer additional support to the family firm literature for the heterogeneous outlook of firms controlled by families by utilizing family science theories which can vastly improve our understanding of the families involved in family firms. While there are significant differences between family and non-family firms, there are also differences between family firms that need to be addressed in the literature (Chua et al., 2012). Through the exploration of different types of family firm communication patterns and their role in effectively carrying out entrepreneurial strategies, we can gain not only more appreciation for the heterogeneous landscape of such firms but also a better toolkit with which to offer more specific prescriptions for family firms, which comprise such a large segment of businesses worldwide (Sanchez-Ruiz et al., 2019). Furthermore, I contribute to both the family science and family firm literatures by recognizing an instance where laissez-faire families are more likely to have successful outcomes. Typically, studies of family communication patterns theory suggest that high conversation and low conformity in the family (i.e. pluralistic families) are associated with the best outcomes and that laissez-faire families represented by low conversation and low conformity generate poor outcomes. However, when discussing a laissez-faire communication style within a family firm attempting to carry out a proactive entrepreneurial strategy, it may provide some benefits in regard to the performance results due to the lack of reliance on others to make quick decisions. Since swiftness is so

important to successful proactive behavior, a laissez-faire communication style can be most appropriate.

Through the exploration of the consequences of entrepreneurial orientation as altered by the uniqueness of family communication designs, I further contribute by bridging the gap between the entrepreneurship and family business literatures which have maintained a fairly strong tension due to notions that family firms tend to be conservative and reluctant to change (Kellermans et al., 2008) while also requiring innovation to succeed and accomplish their long term ambitions (Lumpkin & Brigham, 2011). It has been more recently discovered in the literature that the success of entrepreneurial behaviors carried out in a family firm is dependent on family firm unique organizational characteristics and styles (Short et al., 2009). As such, it is important to recognize the influence of these unique attributes, such as family firm patterns in communication, on how effective and efficient the firm is at entrepreneurial strategies. As noted by family scholars, “communication is situated at the heart of family processes” (Segrin & Flora, 2005: p. 4) and family/firm performance can be enhanced or deteriorated through communication styles (Sciascia et al., 2013). The practical implications are that family communication styles matter for family firm functioning and a combination of supportive interactions with the reassurance to share thoughts along with beliefs that decisions are based on merit is best to convert a family firm innovative and risk taking entrepreneurial strategy into enhanced operation while a combination of the ability for members to make their own decisions with the belief that others are not required to be involved in decision making is best to convert a family firm proactive entrepreneurial strategy into improved performance.

Limitation and Directions for Future Research

There are several areas ripe for future research based on the conceptual arguments provided. First, empirical examination is needed of the proposed relationships that certain communication styles within a family firm alter the influence of an entrepreneurial strategy on firm performance. Too little is known about the internal relationship factors that alter the link between EO and firm performance. Mixed findings on the performance consequences of EO within family firms may be the result of improper communication styles, which influence overall culture and employee comfort to discuss pertinent information and share knowledge. In order to empirically test the conceptual model, existing valid measures should be used when possible. The key constructs of the current model (i.e., family conformity pattern, family communication pattern, innovativeness, proactiveness, and risk-taking) have existing measures in the literature that have been substantiated and used extensively. Ritchie and Fitzpatrick's (1990) 'revised family communication patterns' (RFCP) measurement tool is the most widely cited instrument of family communication across conversation and conformity patterns. Previous research firmly establishes the measure's internal consistency and reliability (Ritchie & Fitzpatrick, 1990). Entrepreneurial orientation could be measured either subjectively, such as with Covin & Slevin's (1989) popular nine-item EO questionnaire, or objectively such as following the prescriptions of Miller and Le Breton-Miller (2011) to use financial reporting data.

Future research could also enhance our understanding of how other family firm specific characteristics, identities, cultures, etc. may improve the exploitation of entrepreneurial orientation. While communication is seen as one of the most important

family firm processes (Segrin & Flora, 2005), there are several other family specific factors that can alter the success of an entrepreneurial strategy. As such, future research would benefit from exploring other family science concepts that may alter the link between EO and family firm performance. For example, parental control theory is an alternative family science theory that may provide some additional insights. Parental control theory (Baumrind, 1971) predicts how parenting styles in the family affect the behavior and personality of individuals-whether they are adults, adolescents, or children. Authoritative parenting styles provide a balance between demandingness and responsiveness and these styles are considered the best for individual mental health, independence, self-esteem, and achievement orientation. A family firm with authoritative parents may have the best chance of turning an entrepreneurial strategy into improved firm performance. Conversely, authoritarian parents' demanding and non-responsive style can impede individuals' autonomous decision making skills, lower individual self-esteem, and foster individual anxiety and lost sense of identity. As such, a family firm with authoritarian parents may have the worst chance of turning an entrepreneurial strategy into improved performance. Furthermore, permissive parents that lack demandingness but are highly responsive can reinforce a child's sense of entitlement which can create problems for successful innovative and proactive behaviors. Future research should explore these effects and others borrowed from family science theories.

An additional limitation involves the level of analysis of the current research. Although I follow the lead of previous scholars (e.g., Koerner & Fitzpatrick, 1997; Sciascia et al., 2013) by considering conversation and conformity patterns at the firm level, there is the potential that individuals within each firm have differing perceptions of

conversation orientation used within the firm. Further, the current research treats family and nonfamily members alike. Future studies could examine whether family and nonfamily members within a family firm have similar or disparate views on conversation patterns emphasized and whether that can influence the success of strategy implementation.

CHAPTER III. ENTREPRENEURIAL ORIENTATION, ORGANIZATIONAL
CULTURE, AND FIRM PERFORMANCE: THE IMPORTANCE OF A BALANCED
APPROACH

Introduction

A firm's entrepreneurial orientation ("EO"), defined as a strategic posture that promotes actions related to innovativeness, proactiveness, and risk-taking, directs its tactical decisions and processes towards the search and development of new endeavors (Covin & Slevin, 1989). In increasingly competitive and changing environments, firms must continuously pursue entrepreneurial opportunities (D'Aveni, 1994) in order to attain a competitive edge and translate it into improved performance returns (Hitt, Ireland, Camp, & Sexton, 2001)—demonstrating the instrumental importance of entrepreneurial strategic positions (Covin & Slevin, 1991). As the literature recognizes the importance of entrepreneurial orientation, the relationship between EO and firm performance has received considerable attention over the past several decades, where conceptual arguments converge on the notion that firms benefit from emphasizing innovation, risk-taking, and proactiveness or aggressiveness in the market (Lumpkin & Dess, 1996). However, the empirical findings on a positive link between EO and performance are inconclusive. While numerous studies provide strong empirical support for the positive association ($r > .30$) between EO and firm performance (e.g., Covin & Slevin, 1986; Hult, Snow, & Kandemir, 2003; Lee, Lee, & Pennings, 2001; Wiklund & Shepherd, 2003), others report much lower (e.g., Anderson, Kreiser, Kuratko, Hornsby, & Eshima, 2015;

Lumpkin & Dess, 2001; Zahra, 1991), non-significant (Covin, Slevin, & Schultz, 1994; George, Wood, & Khan, 2001), or even negative correlations between the two (Naldi, Nordquist, Sjoberg, & Wiklund, 2007). The substantial variation in the size of reported associations between EO and firm performance highlights the numerous contingencies apparent in the relationship (Wiklund & Shepherd, 2005; Lumpkin & Dess, 1996). This has led many scholars to recently call for a detailed examination of the conditions under which EO is especially beneficial or nonbeneficial to performance (e.g., Covin & Wales, 2019; Wales, 2016; Rauch, Wiklund, Lumpkin, & Frese, 2009).

While a stream of research reveals the moderating roles of external, environmental factors in the EO-performance relationship, such as national culture (Argbaugh, Cox, & Camp, 2005; Rauch et al., 2009), environmental dynamism, turbulence and hostility (Covin & Covin, 1990; Dess, Lumpkin, & Covin, 1997; Wiklund & Shepherd, 2005), and external networks (Lee et al., 2001; Stam & Elfring, 2008), the examination of internal factors, or those related to the firm, in the literature is minimal and in need of additional investigation (Wales, 2016; De Clercq, Dimov, & Thongpapanl, 2010; Wales, Parida, & Patel, 2013). A firm's ability to facilitate and effectively align its entrepreneurial orientation with its current organizational social setting requires proper administration within the organization (Lumpkin and Dess, 1996; Wiklund and Shepherd, 2005; Wales, Monsen, & McKelvie, 2011). In other words, for firms to benefit from EO and increase their resulting performance, entrepreneurial decisions and processes must be properly operated within the organization (Covin, Green, & Slevin, 2006). For example, as noted by Covin and Slevin (1991), organizational structure, leadership, resources, and culture are key internal factors to consider when researching entrepreneurial orientation

as these factors connect and influence almost everything that people do within the organization. Specifically, the authors note that an organization's ability to maintain and successfully progress an entrepreneurial posture is contingent upon that organization's culture, however, empirical evidence of such a statement is negligible, if not omitted, in the literature. Therefore, I argue and empirically examine that while a strategic posture related to EO provides direction for organizations to pursue new ventures and opportunities, effective alignment of EO requires a corporate culture that supports these actions. Furthermore, the literature presently recognizes that firms are complex systems of interdependent features, choices, and actions and that sustained performance advantages frequently do not rest on a single characteristic. Instead, competitive advantage resides in the relationships and complementarities between multiple attributes (Frambach, Fiss, & Ingenbleek, 2016; Fiss, 2007; Ketchen, Thomas, & Snow, 1993; Miller, 1986). As noted by Meyer, Tsui, and Hinings (1993), research on organizational configurations suggests that "organizational structures and management systems are best understood in terms of overall patterns rather than in terms of analyses of narrowly drawn sets of organizational properties" (p. 1181). As such, I examine the multiple configurations of culture and EO that can advance organizational performance.

To fill this gap on EO's interaction with internal strategic factors and extend the line of inquiry of firms as complex systems with configurational understandings of firm performance, I examine the interactions between different EO subdimensions and four types of organizational culture, referred to as the shared values, beliefs, and standards that characterize members of the firm (Hartnell, Ou, Kinicki, Choi, & Karam, 2019). The importance of organizational culture has become a common topic in the business press

and academic literature alike. The management literature has been highly attentive to the influences and consequences of organizational culture due to the belief that culture is a significant social characteristic within the firm that influences organizational, group, and individual behavior (Hartnell, Ou, & Kinicki, 2011). Organizational culture has also become a prevalent topic within organizations themselves. According to a survey of more than 1,300 firms in North America, 92% of corporate executives note that firm culture is a major impetus when it comes to firm value and only 16% believe their organizational culture is where it should be (Graham, Harvey, Popdak, & Rajgopal, 2017). As such, I seek to study how corporate culture is organized within firms and how these different organizations of culture alter how well entrepreneurial actions are carried out within the firm. I use the familiar Competing Values Framework (CVF), first introduced by Quinn and Rohrbaugh (1983) and later further developed by Cameron, Quinn, Degraff, and Thakor (2006, 2014), to identify four dimensions of corporate culture—namely, collaboration, control, competition, and creation—and examine their influences on the link between EO and performance. This study draws on extant research in strategy and entrepreneurship to develop a general premise about the performance of configurations of entrepreneurial orientation and corporate culture and then utilizes fuzzy set qualitative comparative analysis (fs/QCA) to explore which combinations of EO and culture result in superior performance. Fuzzy set QCA is a set-theoretical configurational approach that can handle high degrees of complexity and can uncover how differing causal conditions combine to produce a certain outcome (Ragin, 2000, 2008). Numerous scholars recognize that applying QCA in strategic, organizational, and entrepreneurial settings can develop novel understandings into causally complex matters (e.g., Bell, Filatotchev, & Aguilera,

2014; Crilly, Zollo, & Hansen, 2012; Fiss, 2007, 2011; Grandori & Furnari, 2008; Greckhamer, 2011; Greckhamer, Misangyi, Elms, & Lacey, 2008; Misangyi & Acharya, 2014; Woodside, 2013). This approach allows the current study to examine orientations and cultures interdependently. Capturing performance outcomes of complex interdependencies between strategic postures and internal firm constructs, such as organizational culture, using commonly employed methods, such as ordinary least squares (OLS) regression models, is often difficult. This is mainly due to the traditional methods' focus on isolating the net, independent effects of single explanatory factors on performance. Conversely, configurational approaches identify the combinations of these complex interdependencies that bring about the particular outcome of interest (Ragin, 2008). For example, instead of traditional OLS findings that display significant positive or negative correlations between each independent variable and the outcome, the findings of a configurational approach display what combinations of input variables are associated with a particular outcome. In other words, rather than estimating the average net effect of a particular entrepreneurial orientation or cultural structure, I assess how multiple, alternative configurations of entrepreneurial orientations and cultures support firm performance. Figure 3 summarizes the research model.

Insert Figure 3 about here

In analyzing these configurations, three specific contributions to the literature are offered. First, as a key theoretical contribution, I advance research on the EO-performance relationship by integrating the firm's corporate culture as a moderating

variable (Rauch et al., 2009). While prior studies have given a substantial amount of attention to external and tactical moderating variables of the EO-performance relationship, researchers have only begun to scratch the surface regarding the role of internal factors (Wales et al., 2011, Wales, 2016). For example, De Clercq et al. (2010) provide crucial insights on how EO may be managed within the firm by exploring the conditional influence of social exchange processes between R&D and marketing managers on the EO-performance relationship. Specifically, the authors discover that the EO-performance relationship is stronger when relationships are strong, trust is sensed between organizational members, and members are committed to the organization and its goals. DeClercq et al. (2010) then call for future inquiry on the internal contingencies of the potential positive link between entrepreneurial actions and firm performance. Interestingly, organizational culture is linked to all the moderating aspects found in their study. For example, a culture that emphasizes teamwork and collaboration can build trust or a culture that emphasizes pursuing a vision can create the commitment to a shared goal (e.g., Cameron et al., 2006). In addition, introducing corporate culture as a potential explanation for positive EO alignment can alleviate concerns associated with resistance by certain employees to entrepreneurial endeavors due to uncertainty about or fear of entering unfamiliar territory (Monsen & Boss, 2009; Wales et al., 2011). Culture describes how organizational members should act when approaching this uncertainty that arises from either a need for the members to integrate internal strategic innovations or to proactively adapt to external opportunities (Wales et al., 2011).

The current research also contributes to the entrepreneurial orientation literature through the use of fs/QCA. Traditional multivariate investigative methods are often less

proficient at capturing complex systems of interdependencies among the components of a configuration and outcome variables. Development of entrepreneurship theories utilizing empirical tests of configurational approaches is scarce yet required to fully comprehend the complexity of firms and the consequences of their entrepreneurial actions.

The third contribution lies in the combination of two unique measurement instruments for EO and corporate culture to examine if cultural attitudes and intensions match entrepreneurial behaviors of the firm, and based on this harmonization, whether performance improves. First, extant research on EO has largely been conducted utilizing self-reports (Rauch et al., 2009), yet such measures focus mainly on the philosophies regarding an entrepreneurial strategy and fail to understand the true behavioral aspects of EO. Additionally, these subjective measurement tools may be subject to social desirability bias and/or memory decay bias. The current research studies large organizations and focuses on a potentially more reliable, objective measure of EO (Miller, 2011). Next, in order to measure corporate culture as the moderating influence, I analyze the text of each firm's 10-k filings. By combining this with an objective measure for EO, I can ascertain if entrepreneurial actions of the firm (behaviors conceptualized using financial metrics) interact with the underlying intended culture of the corporation to enhance performance.

This research proceeds as follows. First, the theoretical underpinnings of entrepreneurial orientation and the competing values framework are examined, and an explanation is offered for why a configurational approach is most appropriate. The importance of emphasizing a culture that balances the competing values is subsequently articulated. Then, I empirically test this balanced approach using fs/QCA and the

methods, measurements, and results are discussed. Finally, contributions of this research are considered as well as future research opportunities.

Literature Review

Entrepreneurial Orientation

Entrepreneurial orientation, originally conceptualized by Miller (1983), can be defined as an essential characteristic and attribute of a firm that supports and manifests entrepreneurial actions with sufficient regularity (Covin & Wales, 2019). As such, EO is classified as a firm-level construct comprised of an entrepreneurial strategic posture embodying innovativeness, proactiveness, and risk-taking propensity (Miller, 1983; Covin & Slevin, 1989, 1991). Innovativeness manifests in behaviors related to introducing new products, processes, routines, etc., and reflects a firm's tendency to support new ideas, creative processes, experimentation, and novelty consequently departing from established knowhow and practices (Covin & Slevin, 1991; Lumpkin & Dess, 1996). Proactiveness refers to the anticipation of—and activities related to—future desires and needs in the marketplace, which result in first-mover advantages as compared to competitors and an ability to capitalize on emerging opportunities (Covin & Slevin, 1991; Lumpkin & Dess, 1996). Lastly, risk-taking is associated with a willingness to commit time, energy, and other significant resources to projects where the outcomes are unknown and the cost of failure may be elevated (Miller & Friesen, 1978). Combining the above suggests that organizations high on the EO spectrum are more prone to break away from the tried-and-true, venturing into the unknown, and focus attention and effort towards opportunities.

The centrality of EO to both the entrepreneurship and strategic management fields is indicated in the rapid development of the construct. Much of the literature convenes on the notion that firms exhibiting an entrepreneurial behavior largely outperform more conservative firms because entrepreneurial firms have the ability to better coordinate with changing customer preferences and use first-mover advantages to translate their activities into superior performance (Lumpkin & Dess, 1996). However, empirical research has demonstrated that EO does not necessarily lead to improved firm performance and instead is associated with greater performance variation (Wales, Gupta, & Mousa, 2013). Understanding what factors help organizations manage this distribution of performance outcomes is important to shift the performance outcome mean toward a more productive conclusion (Wiklund & Shepherd, 2011). Further, understanding the independent effects of the subdimensions of EO may provide vast insights into the distribution of performance resulting from various EO activities (e.g., Wales, 2016). A firm can simultaneously display high levels of innovativeness and/or proactiveness along with relatively low levels of risk-taking (Wales, 2016; Lumpkin & Dess, 1996). Understanding such variances between the components (and their interactions with different culture types) is essential in explaining firm outcomes.

Several recent meta-analyses have suggested that firms demonstrating an entrepreneurial orientation largely outperform more conservative firms because the former have the ability to better coordinate with changing customer preferences and use first-mover advantages to convert their activities into superior performance (Rauch et al., 2009; Rosenbusch, Rauch, & Bausch, 2013). Rauch et al. (2009) went as far as to deduce that “the effects of EO on performance can be regarded as moderately large” (p. 778).

However, several scholars raise doubts about the unquestioning emphasis that firms may place on EO and argue instead that EO increases firm performance variance (Wales et al., 2013, Wiklund & Shepherd, 2011). For firms to benefit from EO and increase their resulting performance, entrepreneurial decisions and processes must be properly operated within the organization (Covin, Green & Slevin, 2006). Researchers caution that corporations may be unsuccessful in translating an EO posture into performance benefits when it is not properly aligned with the firm's internal strategic direction, represented through, for example, leadership behaviors (Engelen, Gupta, Strenger, & Brettel, 2015) or corporate culture.

Organizational Culture

While the organizational culture literature has provided multiple conceptualizations of what constitutes the culture of a firm, the current research adopts the competing values framework (CVF), first introduced by Quinn & Rohrbaugh (1983) and later further developed by Cameron et al. (2006, 2014), as it is perhaps the most prevalent approach to assessing organizational culture where the concern is on linking culture to organizational performance (Gregory, Harris, Armenakis, & Shook, 2009). In particular, the CVF has been named as one of the 40 most central frameworks in the history of business (Ten Have, Ten Have, Stevens, Vander Elst, & Pol-Coyne, 2003). This particular cultural framework is a spatial analysis that explains how the dimensions of structure and focus intersect to define four culture types (controlling, competitive, creative and collaborative). Figure 4 illustrates the CVF where the structure (vertical axis) and focus (horizontal axis) dimensions differentiate effectiveness criteria.

The structure dimension differentiates value creation standards that emphasize flexibility and individuality from standards that focus on stability and control. As such, this dimension explains the difference between organizations that are effective through their ability to change and adapt and those that are effective by being stable and predictable (Cameron et al., 2014). In order to create value, firms on the individuality/flexibility end of the structure dimension concentrate on expanding options, creating new ideas, self-organizing, and collaborative learning. These firms are adaptable and flexible instead of conservative. On the other hand, firms on the stability and control end of the structure dimension concentrate on maintaining objectivity, gathering and analyzing data, and careful monitoring of progress.

The focus dimension differentiates value creation standards that focus on internal capabilities, integration, and harmony of processes from standards that concentrate on external positioning and differentiation. For example, some organizations' effectiveness is associated with their harmonious internal characteristics—such as Dell being traditionally recognized for a consistent 'Dell-way'—while other organizations' effectiveness is associated with their primary focus on challenging and competing with rivals (Cameron et al., 2014). Firms on the external positioning end of the focus dimension create value by pursuing external opportunities such as acquisitions, identifying future trends, pursuing growth through pioneering ideas, and competing for market share. On the other hand, firms on the internal maintenance end of the focus dimension create value through an emphasis on developing and maintaining internal capabilities such as continuous quality improvement, system maintenance, and human development (Cameron et al., 2006). Below, each CVF culture domain created through

the intersection of these two core dimensions is defined as described by Cameron et al. (2006, 2014).

Insert Figure 4 about here

Controlling Culture. A controlling culture is on the stability/control end of the structure dimension and on the internal maintenance end of the focus dimension—meaning this culture focuses on incremental change. Activities aimed at enhancing value in the control quadrant include pursuing enhancements in efficiency by implementing better processes. If this culture type had a mantra it most likely would be: “Better, cheaper, and surer” (Cameron et al., 2006: p. 32). This culture is one of consistency and coordination and value results primarily from increasing certainty, predictability, and by eliminating factors that inhibit an error-free outcome. Examples of activities related to the controlling culture include control processes such as six-sigma, productivity improvements, and reduction in manufacturing cycle time. Control culture leaders are often encouraged to be technical experts, well-informed on the details, and focus on logic for problem solving. Leadership strategies are aimed at eliminating errors and increasing the opportunity for consistency within organizational actions.

Competitive Culture. A competitive culture is on the stability/control end of the structure dimension and on the external positioning end of the focus dimension—meaning this culture focuses on fast change. Activities aimed at enhancing value in the compete quadrant include pursuing competitiveness through aggressive actions. If this culture type had a mantra it most likely would be: “Compete hard, move fast, and play to

win” (Cameron et al., 2006: p. 34). Organizational effectiveness is associated with fast responses, competitive stances, and a priority set on customer acquisition strategies in order to gain market share, increase revenues, and grow in terms of profitability. Leadership strategies in the competing culture tend to be hard driving, directive, and spirited and are aimed at producing short-term profitability by emphasizing that customers and clients are of the highest priority.

Creative Culture. A creative culture is on the individuality/flexibility end of the structure dimension and on the external positioning end of the focus dimension—meaning this culture focuses on new change. Value enhancing actions in the create quadrant tackle revolution in regard to the products and services produced by the company. The mantra of the creative culture might be: “Create, innovate, and envision the future” (Cameron et al., 2006: p. 36). Organizational effectiveness in this culture is measured through pioneering actions and constant change. Similar to risk-taking, Cameron et al. (2014) argue that the potential payoff of a creative culture is high, but so is the probability of failure. Leadership qualities best suited for the creative quadrant include being gifted visionaries, comfortable with risk, and undaunted by uncertainty.

Collaborative Culture. A collaborative culture is on the individuality/flexibility end of the structure dimension and on the internal maintenance end of the focus dimension—meaning this culture focuses on long-term change. Activities aimed at enhancing value in the collaborative quadrant deal with enhancing human competencies, developing employees, and establishing a positive organizational culture. If the collaborative culture had a mantra it might be: “Human development, human empowerment, human commitment” (Cameron et al., 2006: p. 38). Organizational

success is a consequence of hiring, developing, and retaining a loyal human resource base with high levels of engagement. Organizational activities related to the collaborative culture include reinforcing firm values and norms, implementing employee retention programs, and fostering teamwork and decentralized decision making. Leaders of this culture type tend to take on the roles of mentor and team facilitator in an attempt to encourage working environments devoid of conflict and tension.

As can be seen from the above descriptions, these four culture types represent opposing or competing assumptions. Each continuum emphasizes value creation and key performance standards that are contradictory from the value creation and performance standards on the other end—i.e., individuality/flexibility versus stability/control, internal maintenance versus external positioning. One major feature to note though is that these cultures are not mutually exclusive. Most companies have a dominant culture, favoring one type over another, but factors of all four cultures can be present in one firm. Thus, a configurational approach to performance that examines the appropriate mix of EO subdimensions and organizational culture type is appropriate.

Several studies have utilized the competing values framework to examine the influence of culture on organizational concerns (e.g., Marinova, Cao, & Park, 2019; Cameron & Freeman, 1991; Goodman, Zammuto, & Gifford, 2001). For example, in a study examining organizational effectiveness in universities, Cameron and Freeman (1991) found that a collaborative culture was most effective in terms of student, administrator and faculty satisfaction. In a more recent competing values study, Marinova et al. (2019) posit that well-balanced organizational values lead to constructive organizational climates that positively influence organizational helping behaviors.

*A Configurational Approach to Entrepreneurial Orientation and Organizational Culture:
The Importance of Balance*

A core premise of the competing values framework is that a ‘both/and’ thinking is superior to an ‘either/or’ (Cameron et al., 2014). In other words, integrating competing values will lead to increased value creation over emphasis on one culture type over another. Organizations are urged to consider seemingly disparate tensions and contradictions simultaneously in order to foster a balanced culture, one that strongly holds the values associated with each of the four CVF culture regions. Quinn (1988) presented the notion of cultural balance within the CVF and posited that organizations with balanced cultures have a noticeable advantage over those that highly focus on one culture over the others. Just as Einstein’s belief that an object could be simultaneously moving and at rest led to entirely new ways for physicists to view the universe and natural phenomenon, the integration of two opposing ends of the CVF can lead to new understandings of organizational functioning (Cameron et al., 2006). These arguments are similar to the contentions of organizational scholars who maintain that the most successful companies are both differentiated and integrated as, for example, they integrate disparate units by means of common cultures, procedures, structures, dominant visions, etc. (Lawrence & Lorsch, 1967). In other words, as a firm continues to differentiate itself through risky and proactive innovations (behaviors related to EO), it will be more successful if it also integrates each of those differentiated segments through common, overriding visions and communications that create a form of consistency (e.g., potentially through collaborative and controlling cultures). The idea of a balanced culture has since been tested in several empirical studies. For example, Goodman, Zammuto, and

Gifford (2001) found that balanced cultures lead to a higher organizational commitment, job involvement and overall quality of work life.

The effective management of constant change requires the identification of something stable (Cameron et al., 2006). As such, organizations that emphasize risk-taking, innovation, proactive stances, which are representative of a strong emphasis on originality and continual change, also require predictability and reliability to yield lasting value (Cameron et al., 2014). When, for example, a company overemphasizes innovative outputs, agility, and transformation of current products and processes, they may engender impractical or unrealistic visions of the future. When organizations stress this type of hopefulness for continuous change, they may overlook hard facts, practical guidance, or reasonable perspectives (Cameron et al., 2014). Similarly, too much emphasis on efficiency, consistency, and uniformity can cause organizations to become too stagnant, as they may be so pragmatic that all unproven possibilities are viewed through a highly skeptical lens. However, by integrating an emphasis on both innovativeness and efficiency, creativity and breakthrough thinking are stimulated (Cameron et al., 2006). In the same way, studies of creativity suggest that revolutionary insights are often a result of concentrated logical preparation combined with visions and dreams of something previously unknown (DeGraff & Lawrence, 2002). In this instance, organizational visions are described as ‘logical optimism’ or ‘realistic enthusiasm’ and are informed by both observable elements and imaginary possibilities (Cameron et al., 2006).

As the competing values framework emphasizes the importance of balancing opposing ideals, one could expect that firms high in EO should also emphasize collaborative and controlling cultures to balance the drive for constant innovation. If

firms high in EO solely focus on creative and competitive cultures, the probability of failure increases as the organizational vision relies too much on hope and not enough on reason. Therefore, I postulate that several configurations of EO and culture that balance transformation with efficiency can lead to high performance. For example, an entrepreneurial orientation high in risk taking will likely have a stronger influence on firm performance for organizations that also focus on controlling cultures than for organizations that strongly emphasize only the creative and competitive cultures as the balance will lead to rational decision making and an undertaking of more calculated entrepreneurial activities. Further, an entrepreneurial orientation high in proactiveness will likely have a stronger influence on firm performance for organizations that also focus on collaborative cultures as the balance between an emphasis on teamwork/collaboration and an emphasis on speed/urgency can create value through quick actions that are still communicated with others (Cameron et al., 2006). Due to the nature of the arguments for a balanced approach between several different EO subdimensions and several competing cultural values, qualitative comparative analysis, a less traditional empirical method that identifies several combinations of factors that lead to an outcome, is employed.

Methods

Fuzzy Set Qualitative Comparative Analysis

Fuzzy set qualitative comparative analysis conceptualizes cases that are comprised of combinations of theoretically relevant attributes (i.e., entrepreneurial orientation subdimensions and organizational culture type) and the relationship between these attributes and the outcome of interest (i.e. firm performance) can be understood

through the examination of subset relations (Ragin, 2000, 2008). The attributes and the outcome are “best understood in terms of set membership” (Fiss, 2007: p. 1183) where fs/QCA identifies combinations, or bundles, of factors that work in concert with one another to bring about a particular outcome (Ragin, 2008). This statistical technique uses Boolean algorithms, which anticipate how a firm’s membership in a configuration of provisions is related to membership in a particular outcome (Schneider & Wagemann, 2012). The result is a Boolean statement designating multiple configurations that are each satisfactory but not necessary for the outcome of concern. This analysis allows the current research to identify several, equifinal configurations of conditions, specifically EO subdimensions and firm dominant cultures, that are associated with firm performance.

This method captures three elements of causal complexity—conjunction, equifinality, and asymmetry (Ragin, 2008; Schneider & Wagemann, 2012). Conjunction denotes that attributes may not prompt outcomes in seclusion from each another, equifinality infers that diverse combinations of attributes may be linked to an outcome, and asymmetry implies that the causes for each occurrence of an outcome require separate theoretical and empirical consideration as they are not inevitably the inverse of the causes of its absence, implying that attribution presence versus attribution absence, when combined with other attributions, may play different roles in the occurrence of outcomes. A growing stream of strategic management and entrepreneurship research, recognizing the potential for analyzing phenomena resulting from complex causality, has utilized fs/QCA (e.g., Munoz & Dimov, 2015; Greckhamer, 2016; Bell et al., 2014; Crilly

et al., 2012; Fiss, 2007, 2011; Greckhamer et al., 2008; Kogut, MacDuffie, and Ragin, 2004; Misangyi and Acharya, 2014).

The appropriateness of using fs/QCA in the current research lies in the notion that firms can engage in all or none of the entrepreneurial orientation sub-dimensional activities as well as all or just one of the CVF culture types. By examining the configurations of EO and organizational culture that lead to improved performance, we can increase our understanding of which EO subdimensions, which cultures, and which combinations of each are most effective.

Sample

The sample comprises manufacturing firms in the top 500 companies named by Standard & Poor's. Manufacturing firms are most appropriate for this analysis as they are most likely to employ an entrepreneurial strategy because of the continuing trend towards greater environmental hostility that these firms face—creating the necessity to compete through innovation, proactiveness, and risk-taking (Covin & Slevin, 1989). A total of 183 manufacturing companies were identified as those with Standard Industrial Classification (SIC) codes between 2000-3999 and with enough available data to calculate the measures of interest. I employ textual analysis of 10-K filings from the years 2015-2017 to identify firms' average corporate culture and accounting data for the same years were gathered from Compustat to measure EO. In order to identify a lagged effect, performance was measured using accounting data from Compustat for the year 2018. All measures are further explained in Appendix C.

Dependent Variable

Consistent with previous studies that examine the strategy-performance relationship utilizing fsQCA (e.g., Fiss, 2011), performance as a result of EO was assessed using return on assets (ROA). ROA is a widely used measure of performance due to its indication of how well economies of scale and scope have been achieved (Chan Kim, Hwang, & Burgers, 1989; Carpenter, 2002). Since entrepreneurial strategies include differentiating business operations with the potential to capitalize on such economies, ROA is an appropriate representation of performance here. Further, ROA has been determined as a distinct measure of performance but still significantly related to an overall latent performance construct (Combs, Crook, & Shook, 2004). While self-reported data for performance are more common, such measures may be subject to bias due to social desirability, memory decay, and/or common method variance—further indicating the suitability of using ROA as an indicator for performance. ROA is calculated as pretax profits (losses) divided by total assets.

Independent Variables

Entrepreneurial Orientation. Following the recommendations from Miller and Le Breton Miller (2011), the three dimensions of entrepreneurial orientation were measured using objective indicators. Most studies of EO examine smaller firms and rely on questionnaire responses relaying executives' opinions, but since the current research studies much larger organizations, the focus is on more objective indicators of EO behavior. Since Miller's (1983) suggestion that a firm's EO is a joint function of innovation, proactiveness, and risk-taking variables (see also Covin & Slevin, 1986; Rauch et al., 2009), this perception has been employed in numerous studies (see review

by Wiklund, 1999). However, in their meta-analysis of the relationship between EO and performance, Rauch et al. (2009) note that there is little difference between a multidimensional and unidimensional conceptualization of EO when it comes to their relation to performance. Furthermore, scholars have argued that understanding the independent effects of the subdimensions of EO may provide vast insights into the distribution of performance resulting from various EO activities (e.g., Wales, 2016). As such, I did not use a composite index of EO but instead examine the unique influences of innovation, proactiveness, and risk-taking.

Firms that invest larger quantities in research and development related to products and processes tend to be more innovative (Miller & Le-Breton Miller, 2011; Hall, 2002; Hansen, 1992). Thus, innovation is measured as research and development expenses divided by sales. Firms with a higher tendency to engage in strategies that build the business rather than a focus on harvest or retrenchment are more proactive (Miller, 1983). Thus, proactiveness is measured as the cash reinvestment ratio, which estimates the amount of cash flow that management reinvests in a business. A high cash reinvestment ratio might indicate that management is committed to improving the business. Lastly, risk-taking is the tendency of a firm to make bold moves, such as risking significant capital while facing a substantial amount of uncertainty. Following prior research (Devers, McNamara, Wiseman, & Arrfelt, 2008; Lim & McCann 2013), risk-taking is measured using three risk dimensions: R&D investments, capital investments, and long-term debt. A principal component factor analysis revealed a one-factor solution for risk-taking, with all three items loading on that single factor, and a weighted factor score for

risk-taking was computed for each year (2015, 2016, and 2017) using the component score coefficients shown in Table 1.

Insert Table 1 about here

Corporate Culture. Hofstede, Neuijen, Ohayv, & Sanders (1990) assert that organizational culture is revealed in a firm’s symbols, heroes, rituals, and values. Specifically, the authors state that “[s]ymbols are words, gestures, pictures, or objects that carry a particular meaning within a culture” (p. 291). Thus, words (as symbols) are a useful tool to identify the values that are part of a firm’s corporate culture. Following Fiordelisi and Ricci’s (2014) bag of words approach—which associates words with each culture type—I use 10-K filings to identify the culture orientation of each firm in the sample by assigning four scores representing the four culture dimensions—controlling, collaborative, competitive, and creative. Since the culture orientations co-exist under the CVF (Cameron et al., 2014), each firm observation requires four culture scores. Using text to measure the culture of an organization is supported by research from many fields, including sociology (e.g., Atkinson, 2014), social psychology (e.g., Shotter, 1997), finance (e.g., Fiordelisi & Ricci, 2014) and ethics (e.g., Forster, Loughran and McDonald 2009).

Fiordelisi and Ricci (2014) classify four word lists—each associated with a type of corporate culture as suggested by the CVF (see Appendix C for an in-depth examination each culture and their related specific word list). For example, words associated with a collaboration-oriented culture include collaborate, cooperate, team and

teamwork; words associated with a creation-oriented culture include dream, create, fantasize, etc. Using these word lists, I count the number of times each word appears in the 10-K filing of a given company each year and calculate the relative frequency of the respective culture orientation by dividing the total appearances of the related words by the total number of words in the entire 10-K. DICTION, a content analysis software, was utilized to determine the four culture word counts and total word counts in each 10-K.

For all three EO variables and all four culture variables, an exponentially weighted average was calculated to create a combined score over the years 2015-2017. As noted by Wiklund (1999), investments in EO pay off not only just in the following year, but also in the few consecutive years. A time period longer than a few years, however, would be inappropriate as firms and environments change rapidly, reducing explained variance (Wiklund, 1999). For this reason, three years was utilized to measure EO and culture. However, as determined by Pelham and Wilson (1995), since strategic actions related to innovation/differentiation taken last year are more significant for performance than strategic actions taken 2-3 years ago, the EO and culture variables were exponentially weighted where data from 2017 was given the highest weight, followed by 2016, and then 2015. Data from 2016 was kept at 33.3% and then I split the difference in remaining weight between the other two years. Specifically, to calculate the final EO and culture variables, figures from 2017 represents half of the weight (50%), figures from 2016 represents a third of the weight, (33.3%), and figures from 2015 represent a sixth of the weigh (16.6%).

Calibration

Qualitative comparative analysis requires that each variable be transformed into sets calibrated using thresholds—such as full membership, full non-membership, and a crossover point (or “the point of maximum ambiguity, i.e. fuzziness, in the assessment of whether a case is more in or more out of a set” Ragin, 2008: p.30). The technique also allows researchers to calibrate partial membership sets using values ranging from zero to one creating three-value, four-value, five-value, or even continuous fuzzy sets (Ragin, 2008; Ragin & Rihoux, 2009). Each condition in my analysis was coded (a) 0 (fully out) if in the bottom 20% of values, (b) 0.25 if between 20-40%, (c) 0.5 if between 40-60%, (d) 0.75 if between 60-80%, (e) and 1 (fully in) if in the top 80% of values for that variable. The rationale is that those coded 0.5 are in the crossover point, those coded 0.25 are more out than in, but not fully out, and those coded 0.75 are more in than out, but not fully in. Ragin (2008) advised for the use of both practical and theoretical understanding when calibrating measures and converting them into set membership scores. Culture, strategy, and performance are all variables on wide scales with quite a bit of variety, and as such, it is appropriate to use five values in the calibration as compared to the traditional three-value calibration of fully in, fully out, and a crossover point.

Results

Table 2 presents descriptive statistics and correlations for all measures. Interestingly, performance is positively and significantly correlated with proactiveness, negatively and significantly correlated with risk-taking, and the correlation between performance and innovativeness is not significant. These results are similar to Naldi et al. (2007) who suggested that risk-taking may not always be positively related to

performance. Furthermore, the correlations between performance and all four culture variables are not significant and the correlations between all three EO subdimensions and all four cultures are not significant, supporting the argument that culture is a contingency variable and does not have a direct effect on strategy in this data set. Also, as can be expected from the competing values framework and its claim that multiple cultures can be emphasized at one time, collaborative culture and competitive culture (which are on opposite ends of the competing values framework and differ on both the structure and focus dimensions) are positively and significantly correlated with each other. Similarly, collaborative culture is positively and significantly correlated with controlling culture, even though they are on opposite ends of the structure dimension. This suggests that while opposite in structure and focus, these competing values can be stressed as important at the same time within an organization in order to balance the ideals of both ends. Interestingly though, creative culture is significantly and negatively correlated with all the other three cultures.

Insert Table 2 about here

While EO and culture are conceptually close, the literature does demonstrate that they are differentiated from each other (e.g., Wales et al., 2011). Specifically, Covin and Slevin (1991) argue that organizational culture represents a nonbehavioral mindset of the organization separate from the activities that define it as entrepreneurial. Entrepreneurial orientation and its occurrence represent organizational members' strategy-making procedures and processes guided by the creation of venture opportunities while

organizational culture is the context of norms and values within which EO activities occur (Lumpkin, Wales, & Ensley, 2007; Wales et al., 2011). Admittedly, if an organization that emphasizes EO as its strategy does not explicitly create some type of culture, it is most likely going to inadvertently develop a creative and competitive social setting within the firm. However, that does not mean that all firms emphasizing EO will have this culture—there is the potential to create whatever culture is deemed necessary. So while culture and EO are dynamically linked, they are two distinct constructs and as such it is important to empirically examine them as such.

In order to ensure the independence of these two constructs, a couple of matters should be discussed. First, the measures are from two different sources where EO was calculated using archival financials, which better captures the behaviors related to the strategy, and culture was calculated using text analysis from 10-Ks, which better captures the nonbehavioral social setting accentuated in the firm. Second, as can be seen in Table 2, the measures for EO and culture are not correlated— providing an indication that they are independent. In order to further address the independence of the entrepreneurial strategy and culture measured, a principal component factor analysis was conducted. The Varimax rotated results in Table 3 show that the independent variables load onto three separate factors. The first factor includes all four culture variables, the second factor includes innovativeness and proactiveness, and the last factor includes risk-taking. This not only shows the independence between EO and culture, it also shows that while R&D expense is used in the calculations for both innovation and risk-taking, these two variables stand-alone in what they infer as they load highly on separate factors and only a third of the weight is given to R&D expense in calculating risk-taking.

Insert Table 3 about here

High Performance Configurations

Table 4 illustrates the results of the fuzzy set qualitative comparative analysis. I used notations similar to those introduced by Ragin & Fiss (2008) where black filled-in circles (●) indicate the presence of a condition, blank circles (○) indicate the absence of a condition, and blank spaces with nothing reported indicate a “don’t care” position in which the causal condition can either be present or absent. The solution table shows that with an acceptable consistency set at ≥ 0.80 and a minimum number of cases in each solution set at 2, the fuzzy set analysis results in four solutions. The overall solution consistency, which measures the degree to which the solution as a whole is sufficient for the outcome (Ragin, 2008) is 0.84, which passes the 0.8 threshold recommended by Schneider & Wageman (2012). The overall solution coverage indicates how much of the outcome is covered by the solution as a whole. This value reveals the empirical importance of a solution. The overall solution coverage for this analysis is 0.37, meaning that 37 percent of the sample outcome is explained by these four solutions.

Insert Table 4 about here

The results indicate that a strategy that emphasizes innovativeness and proactiveness can be combined with several different combinations of culture to lead to high performance. This strategy along with a creative culture and along with a balance

between collaborative, competitive, and creative cultures is sufficient for high performance. However, if risk-taking is present (as represented in solution 4), then a culture that emphasizes all four types—collaboration, competition, control, and creation—is the only solution sufficient for high performance. This suggests, similar to what was hypothesized, that a risk-taking strategy likely requires a complete balanced approach to strategy and culture in order to lead to high performance.

Based on these results we can determine that the combination of an innovative and proactive entrepreneurial strategy with culture needs to be either an all-in approach or a balance between multiple cultures. If a firm underscores innovative and proactive behaviors along with a strong emphasis on a solely creative culture (as indicated in solution 2), high performance is likely to result from the combined strategic and cultural importance of innovative output, transformation, and agility. On the other hand, if a firm underscores innovative and proactive behaviors along with a balance between a collaborative, competitive, and creative culture, high performance is likely to result from the balanced cultural importance of innovation and profitability as well as internal commitment and personal development. However, according to this analysis, if a firm underscores innovative and proactive activities and emphasizes solely a collaborative or controlling culture, high performance is less likely to result potentially due to increased uncertainty and confusion that can result from combining a strategy that focuses *solely* on transformation with a culture that focuses *solely* on consistency and uniformity.

Configurations for the Absence of High Performance

In order to further improve the asymmetric understanding of causality between EO, culture, and performance, I also conducted fuzzy set analyses modeling the absence

of high performance. Note again that one of the assumptions of fs/QCA is that causal conditions leading to the presence of an outcome may commonly be different from causal conditions leading to the absence of the outcome. While analysis that predicts the absence of high performance is always part of the standard regression process because of the symmetry of relationships in regression models (Fiss, 2011), additional analyses is required in fs/QCA in order to understand the configurations that lead to the absence of high performance.

In line with the equifinality appreciation of causality in configurations, a fuzzy set analysis of the absence of high performance indicated more than one configurational solution. As shown in Table 5, there are two solutions with an acceptable consistency set at ≥ 0.80 and a minimum number of cases in each solution set at 2. The overall solution consistency, which measures the degree to which the solution as a whole is sufficient for the outcome (Ragin, 2008) is 0.92, which passes the 0.8 threshold recommended by Schneider & Wageman (2012). Again, the overall solution coverage indicates how much of the outcome is covered by the solution as a whole and this value reveals the empirical importance of a solution. The overall solution coverage for this analysis is 0.30, meaning that 30 percent of the sample outcome is explained by these two solutions.

Insert Table 5 about here

As represented by the first solution in Table 5, if risk-taking is emphasized as the strategic posture of the firm yet no specific culture is created to influence the interactions of those in the firm, it is likely to lead to the absence of high performance. If risk-taking

is emphasized and no specific culture is created, the firm may just rely on the consequential social setting in which highly competitive and aggressive behaviors may counteract innovative outcomes. For example, if firm members face challenging goals based on an emphasis to transform the firm through risks, the high performance expectation may cause a lack in ability to be adaptable because negative consequences, such as negative affect and anxiety, may result when confronted with obstacles created by difficult goals (Hartnell et al., 2011). Furthermore, as represented in solution two, if risk taking is emphasized along with the establishment of a collaborative, controlling, and creative culture, it is likely to lead to the absence of high performance. In other words, risk taking not only requires an innovative and collaborative yet controlled spirit, competition is also needed. Again, if the strategy solely emphasizes goal achievement and profitability and the culture solely emphasizes the opposite of personal development and efficiency, confusion may cause scarcity in the undertaking of effective entrepreneurial initiatives. These two solutions taken together, along with the solutions from the analysis for the presence of high performance, indicate that high performing risk-taking behaviors require a balance of all four cultures.

Discussion

Although research on entrepreneurial orientation has garnered much attention in the last several decades, the promise of understanding firm level contingencies to the strategic posture's influence on performance still remains unfulfilled. In this study, I have argued that corporate culture is an important firm factor that can influence the successful implementation of an entrepreneurial strategy. I also introduced fuzzy set qualitative comparative analysis as a corresponding method for more clearly understanding just what

elements of EO and culture are relevant for high performance and how these elements combine to realize their effects.

From a theoretical perspective related to organizational culture, the current research builds on while also challenging some of the long-standing assumptions of how competing values influence organizational outcomes. Contrary to what Cameron et al. (2014) suggest in their development of the competing values framework, the results of this research imply that organizations that emphasize proactiveness and innovativeness do not also require cultures that emphasize predictability, reliability, and human development to yield lasting value. An innovative and proactive firm can solely focus on a creative culture that emphasizes transformation and agility to improve performance. However, the arguments of the competing values framework do standup when risk taking is involved. When the firm presents a willingness to commit time, energy, and other significant resources to projects with unknown outcomes and an elevated cost of failure, that firm requires a culture that balances all ends of both focus and structure dimensions. In other words, a risk-taking strategy necessitates a shared social understanding that values transformation and efficiency, profitability and development, agility and monitoring/uniformity, in order to yield lasting value (Cameron et al., 2014). Risk-taking requires some cautious, logical problem solving that follows a methodology based on details and information. This requirement of coordination and emphasis on efficiency may uncover why risk-taking tends to have the lowest correlation of the three subdimensions to performance (Rauch et al., 2009). Control, evaluation, and monitoring can assist a more calculated risk taking strategy that is guided toward better evaluated projects. When projects are evaluated and scrutinized, their outcomes are better

understood, and the risk is less likely to lead to failure. These conclusions support the arguments of the important act of balancing risky innovation with an emphasis on control and efficiency to produce effective outcomes.

This research also contributes to the EO literature by recognizing that there are alternative paths to above average performance. Combining all three subdimensions of EO does not always lead to improved performance, and sometimes high performance can result when one or two of the subdimensions are not highlighted in the strategy of the firm. In other words, configurations of culture and strategy do matter for performance. Depending on what subdimensions of EO are accentuated, different types of culture are needed to lead to high performance. This notion of causal asymmetry carries important implication for EO research. Specifically, the majority of current EO research appears to imply a linear relationship between theoretical constructs of interest related to an entrepreneurial strategy. However, this potentially leads to the discrepancy between “an essentially symmetrical causal relationship and an actual underlying asymmetric causal relationship” (Fiss, 2011: p. 411). This mismatch may be to blame for the inconsistent findings of the influence of EO on firm performance. For instance, risk-taking may be a necessary yet not sufficient condition for high performance, such that firms will on average need to take some risks to maintain high performance, but by themselves, risk-taking activities will not guarantee high performance. Although perfectly consistent with the theoretical claims of EO, data could in fact, and sometimes does, lead to weak or no correlations between risk-taking and performance. As such, applying the methods used here to future EO research may hold considerable promise for understanding other

conditions that will influence the relationship between risk-taking and performance and will further resolving the inconsistent findings.

Limitations and Future Research

The current research is not without its limitations. First, there are several methodological limitations. For example, a vulnerability of using archival data sources to measure entrepreneurial orientation is the inability to directly poll owners and leaders of the firm on their entrepreneurial intentions and opinions. Objective measures are better at identifying the behaviors linked to EO but fail to identify attitudes linked to EO. The opposite is true of the subjective measurement of EO, such as the Covin & Slevin (1989) nine-item scale. Future research would benefit from using both an object and subjective measure for EO to appropriately evaluate both the attitudes and behaviors of an intended entrepreneurial strategy. Further, to validate the measure of corporate culture, its relation to major firm characteristics could be analyzed in order to determine if the results are in line with the theoretical predictions of the CVF. For example, according to the theoretical predictions of the CVF, a firm with a control-oriented culture is more likely to have divestitures, a firm with a competition-oriented culture is more likely associated with product market competition, and a firm with a collaboration-oriented culture is more likely to overinvest in human capital. The domain of the current research limited the ability to measure these coinciding constructs.

Further, the concepts of strategy and structure are fairly broad and involve multiple components (Miller, 1986) yet empirical tests of these constructs can only select a limited set of dimensions. The current research is no exception in that it focused on certain measures of EO and culture to the exclusion of others. Nonetheless, the measures

selected for this study are arguably central to the domains examined and the current study goes beyond previous work to offer a more holistic view of strategy and culture configurations that lead to improved performance.

Lastly, the results of the current study are restricted to large firms in the manufacturing industry as fsQCA does not appropriately analyze larger samples to conclude a reasonable number of configurational solutions. However, the manufacturing industry is arguably one of the most central industries when discussing entrepreneurial strategy. Future research could determine if the results are similar in other industries as well as in smaller firms, as any firm in any industry has the potential to accentuate an entrepreneurial strategy.

Conclusion

In the current study, I have argued for a more balanced approach to entrepreneurial orientation, and specifically to risk-taking initiatives. The balanced approach is one that emphasizes both novelty as well as consistency. I hope that I have forced corporate entrepreneurship scholars to consider the balances needed for EO to lead to improved performance and I encourage further investigation utilizing configurational approaches to more clearly understand just what elements, and what combinations of elements, are relevant for an outcome. Applying such approach and methods may hold considerable promise for resolving inconsistent findings.

CHAPTER IV. DISSERTATION CONCLUSION

Previous research on entrepreneurial orientation suggests that an emphasis on this type of strategic initiative yields mixed results in terms of firm performance outcomes (Wales, 2016; Wiklund & Shepherd, 2011). In order to fill this gap, my dissertation explored the contingencies that alter the link between EO and firm performance.

Chapter two explored how the type of communication pattern exemplified by the family firm may play a role in whether an entrepreneurial strategy leads to improved family firm performance. The main contentions in the literature are that the need for firms to engage in entrepreneurial activities in order to survive long term is even greater in family firms when they are captivated by a vision to prosper long term, frequently across generations (Lumpkin et al., 2010). However, I help bridge the gap between the entrepreneurship and family business literatures which have maintained a fairly strong tension due to notions that family firms may be conservative and reluctant to change (Kellermans et al., 2008) while also requiring innovation to succeed and accomplish their long term ambitions (Sirmon & Hitt, 2003). EO, by definition, is full of uncertainty which may lead to less than desirable consequences for well-being and satisfaction in the organizational context. For example, empirical results show that uncertainty is positively correlated with employee feelings of lack of control (Bordia, Restubog, Jimmieson, & Irmer, 2011; DiFonzo & Bordia, 2002) and stress (Ashford, 1988; Jimmieson, White, & Peach, 2004), and is negatively correlated with employee job satisfaction (Ashford, Lee, & Bobko, 1989; Nelson, Cooper, & Jackson, 1995), organizational commitment (Hui &

Lee, 2000) and trust in the organization (Bordia et al., 2011). Furthermore, these penalties of uncertainty may have stronger negative effects on family firms vs. nonfamily firms since in the former, image and reputation concerns are of high importance (Deephouse & Jaskiewicz, 2013) and behavior is influenced by ambitions to safeguard the longevity of the family firm (Zellweger, Kellermanns, Chrisman, & Chua, 2012). However, communication patterns within a family firm that foster employees' communication competence and promote confidence in their decision making ability (characteristics of pluralistic families) or that offer independence and autonomy in decision making processes (characteristics of laissez-faire families), can develop the firm's abilities to cope with the uncertainty representative of entrepreneurial strategies. By drawing upon the field of family science, which investigates the structures, relationships, processes, and outcomes of families, scholars can develop richer theoretical models in the literature that further our understanding of the differences between family firms (Jaskiewicz et al., 2017).

Next, in chapter three, I empirically assess organizational culture, a social characteristic within the firm that influences behavior (Hartnell, Ou, & Kinicki, 2011), and its impact on the EO-performance relationship. I apply the popular competing values framework (CVF) first introduced by Quinn and Rohrbaugh (1983) to identify and assess four dimensions of corporate culture (collaboration, control, competition, and creation). A fundamental allegation of the CVF is that integrating competing cultural ideals will lead to increased value creation (Cameron et al., 2014). As such, I argue for a configurational approach that portrays organizations that emphasize risk-taking, newness, responsiveness as also requiring predictability and reliability to yield lasting value.

However, my results are a bit contradictory. While the use of fsQCA in the current study is mainly exploratory, there are several conclusions we can infer from the results. Most interestingly is that innovativeness and proactiveness can rely solely on creative culture to lead to high performance while risk-taking requires the balance of transformational and profitability ideals with attention also on internal development and efficiency.

To sum up the entire critique of entrepreneurial behavior in this dissertation, “the good” of EO is the acknowledgment that this strategic posture is an important strategy that has the potential to lead to improved performance for a firm. “The bad” of EO is the recognition that there are instances when an entrepreneurial strategy does not work, and while the literature greatly understands environmental and market related contingencies, we need more development of firm related contingencies. Lastly, “the interesting” is the specific recognition of two such firm related contingencies—family firm communication patterns and organizational culture. Specifically, in chapter two, the literature can gain from the appreciation that family firms are more likely to benefit from an entrepreneurial orientation when their communication patterns allow for the appropriate flow and utilization of information. In chapter three, the literature can gain from the empirical results which reveal that if risk-taking is emphasized in a firm’s strategy, then a balanced approach in culture is required to increase the likelihood of more “calculated” risk-taking where opportunities that require significant resources and have fairly uncertain outcomes are appropriately scrutinized.

APPENDICES

APPENDIX A: TABLES

Table 1: Principal Component Factor Analysis for Risk-Taking Construct

Variable	Factor 1	Component Score Coefficient
Long-Term Debt	0.94	0.39
Invested Capital	0.89	0.38
R&D Expense	0.84	0.35
Total Eigenvalue		2.37
Proportion of Variance Explained		0.79

**Varimax Rotated Component Matrix*

Table 2: Descriptive Statistics and Correlations

Variable	Mean	s.d.	1	2	3	4	5	6	7
1.Innovativeness	0.063	0.086							
2.Proactiveness	9.020	6.031	0.18*						
3.Risk-taking	26.934	41.478	0.04	-0.16*					
4.Collaboration	0.010	0.003	0.03	0.03	-0.03				
5.Competition	0.021	0.007	0.10	0.10	-0.07	0.79**			
6.Control	0.009	0.003	-0.06	-0.05	-0.02	0.75**	0.77**		
7.Creation	0.010	0.005	0.06	0.06	-0.09	-0.42**	-0.36**	-0.41**	
8.Performance	0.129	0.069	0.12	0.54**	-0.20**	0.06	0.05	-0.02	0.05

** = Correlation is significant at the 0.01 level

* = Correlation is significant at the 0.05 level

Table 3: Principal Component Factor Analysis of All Independent Variables

Variable	Factor		
	1	2	3
Innovativeness		0.86	
Proactiveness		0.63	
Risk-taking			0.90
Collaboration	0.91		
Competition	0.91		
Control	0.90		
Creation	-0.60		

**Varimax Rotated Component Matrix*

Table 4: Configurations for Achieving High Performance for S&P 500 Manufacturing Firms

Variables	Solution			
	1	2	3	4
<i>EO Conditions</i>				
EO Innovativeness	○	●	●	●
EO Proactiveness	●	●	●	●
EO Risk-Taking	○	○	○	●
<i>Culture Conditions</i>				
Collaboration	○	○	●	●
Competition	○	○	●	●
Control	○	○	○	●
Creation	○	●	●	●
Consistency	0.87	0.89	0.82	0.85
Raw coverage	0.13	0.15	0.15	0.16
Unique coverage	0.07	0.06	0.05	0.08
<i>Overall Solution Consistency</i>	<i>0.84</i>			
<i>Overall Solution Coverage</i>	<i>0.37</i>			

Table 5: Configurations for Achieving the Absence of High Performance for S&P 500 Manufacturing Firms

Variables	Solution	
	1	2
<i>EO Conditions</i>		
EO Innovativeness	○	○
EO Proactiveness	○	○
EO Risk-Taking	●	●
<i>Culture Conditions</i>		
Collaboration	○	●
Competition	○	○
Control	○	●
Creation		●
Consistency	0.93	0.89
Raw coverage	0.24	0.15
Unique coverage	0.15	0.06
<i>Overall Solution Consistency</i>	<i>0.92</i>	
<i>Overall Solution Coverage</i>	<i>0.30</i>	

APPENDIX B: FIGURES

Figure 1: A Typology of Family Communication Patterns

		Conversation	
		<i>High</i>	<i>Low</i>
Conformity	<i>High</i>	<p>Consensual Families</p> <p>Balance pressure to agree and preserve family hierarchy with appeal to explore new ideas through open communications</p>	<p>Protective Families</p> <p>Emphasize obedience to elders with little concern for open communication within the family and decisions are strictly made by elders</p>
	<i>Low</i>	<p>Pluralistic Families</p> <p>Emphasize open, unconstrained communication that involves all family members and decisions are based on merit of arguments</p>	<p>Laissez-Faire Families</p> <p>Combine the belief that all family members can make their own decisions with the belief that others are not necessary to be involved in the decision making</p>

Figure 2: A Conceptual Model of the Role of Family Firm Communication Patters on the EO - Performance Link

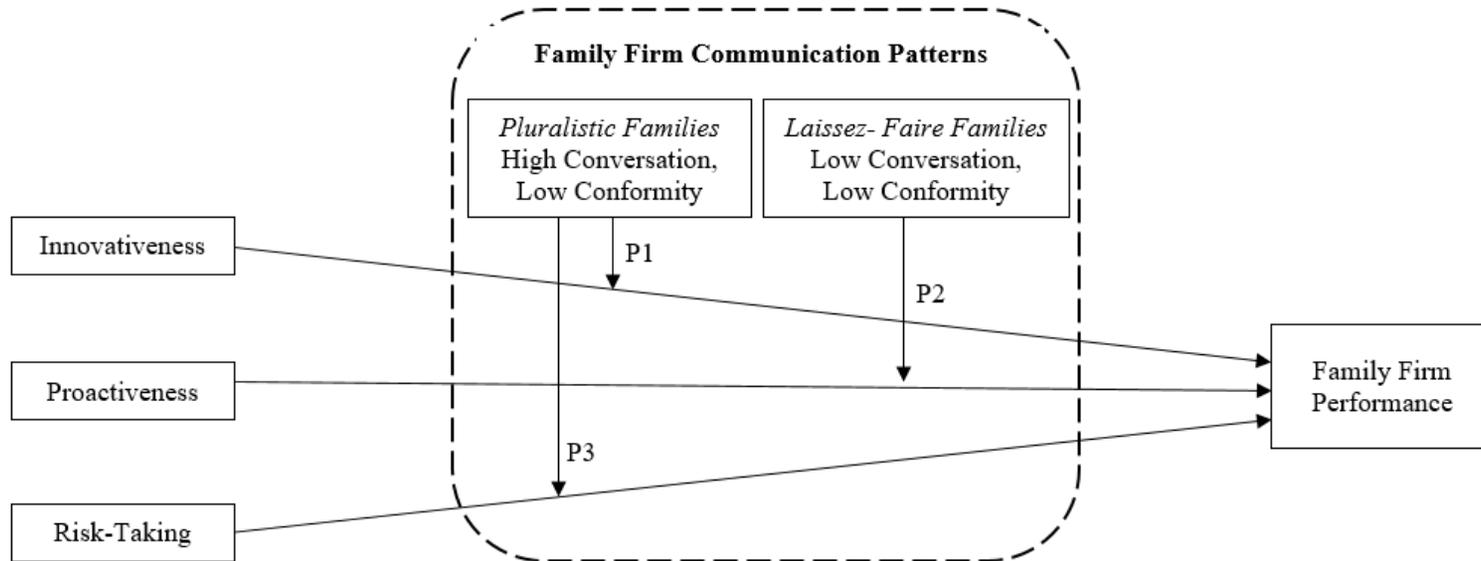


Figure 3: The Configurational Effects of Organizational Culture on the EO - Performance Link

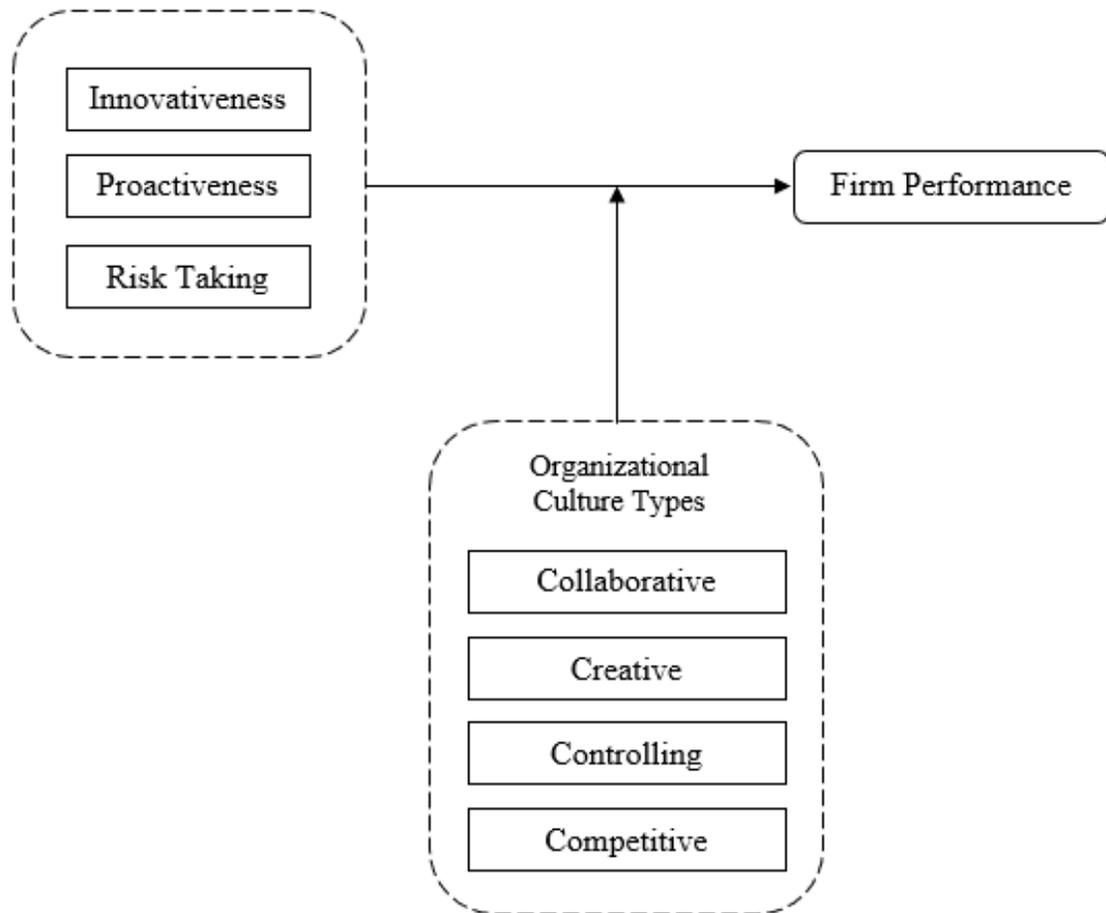
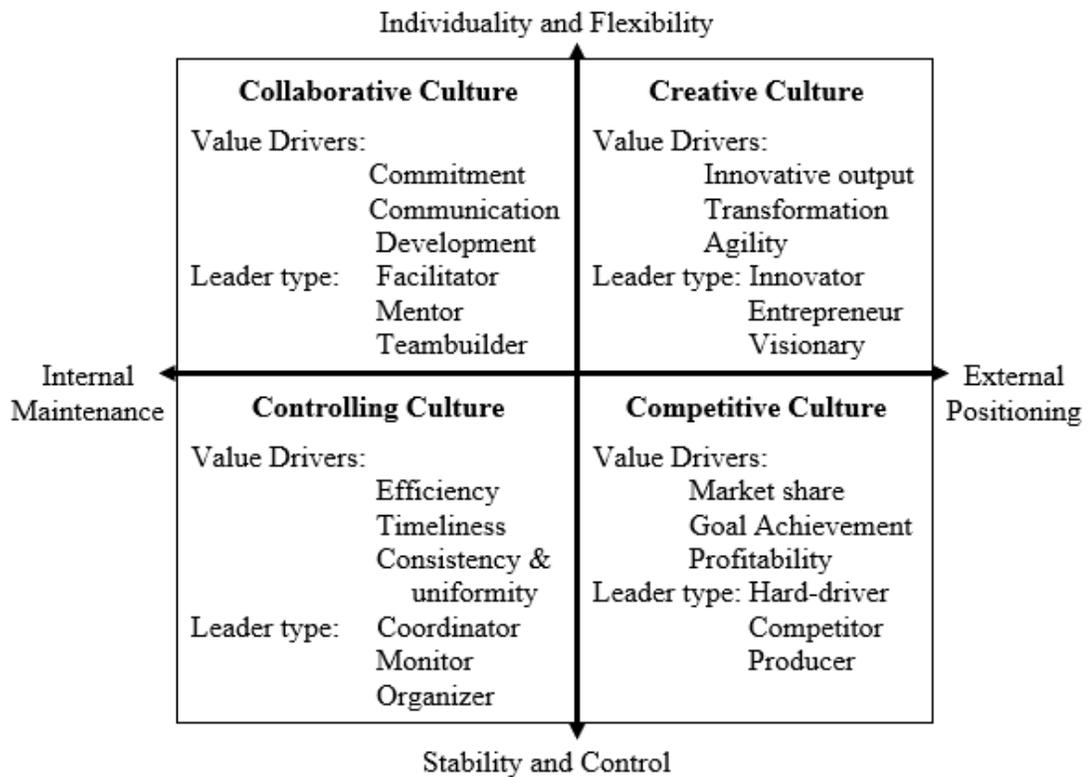


Figure 4: Competing Values Framework*



*Adopted from Cameron et al (2014)

APPENDIX C: MEASURES

The following definitions for the Firm Performance variables and the Entrepreneurial Orientation variables were quoted from the Data Definitions chapter of Standard & Poor's Compustat User Guide.

Firm Performance

Firm performance is measured as return on assets (ROA). ROA is calculated as pretax profits (losses) divided by total assets. (Source: Compustat)

“Operating Income After Depreciation” variable

- This item represents the operating income of a company after deducting expenses for Cost of Goods Sold, Selling, General, and Administrative Expense, and Depreciation, Depletion, and Amortization

“Assets- Total” variable

- This item represents current assets plus net property, plant, and equipment plus other noncurrent assets (including intangible assets, deferred items and investments and advances).

Entrepreneurial Orientation

Innovativeness is measured as research and development expenses divided by sales. (Source: Compustat)

“Research and Development Expense” variable

- This item represents all costs that relate to the development of new products or services. The amount reflects the company's contribution to research and development.
- This item includes:
 1. Company-sponsored research and development
 2. Purchased research and development when reported as a special item
 3. Research and development expense from continuing operations (for companies engaged in the primary business of research and development)
 4. Software development expense
- This item excludes:

1. Amortization of software costs for companies that recognize software revenues
2. Amortization of purchased software
3. Customer- or government-sponsored research and development
4. Customer-sponsored software expense
5. Engineering expense
6. Extractive industry activities (prospecting, acquisition of mineral rights, drilling, and mining)
7. Inventor royalties
8. Market research and testing
9. Purchased technology
10. Research and development from discontinued operations
11. Support expense

“*Sales (Net)*” variable

- This item represents gross sales (the amount of actual billings to customers for regular sales completed during the period) reduced by cash discounts, trade discounts, and returned sales and allowances for which credit is given to customers.
- This item includes:
 1. Advertising companies’ net sales and commissions earned
 2. Airline companies’ transportation related revenues including passenger, cargo, mail, charter, and other
 3. Any revenue source expected to continue for the life of the company
 4. Banks and savings and loans’ interest income and fee revenue
 5. Banks’ total current operating revenue and net pretax profit or loss on securities sold or redeemed
 6. Broadcasting companies’ net of agency commissions
 7. Commissions
 8. Equity in earnings/losses even if negative for real estate investment trusts and investors
 9. Finance companies’ earned insurance premiums and interest income. Finance companies’ sales are counted only after net losses on factored receivables purchased are deducted from Sales – Net
 10. Franchise operations’ franchise and license fees and sales
 11. Hospitals’ sales net of provision for contractual allowances (sometimes includes doubtful accounts)
 12. Income derived from equipment rental considered part of operating revenue
 13. Installment sales
 14. Leasing companies’ rental or leased income

15. Life insurance and property and casualty companies' net sales in total income
 16. Management fees
 17. Net sales of tobacco, oil, rubber, and liquor companies' after deducting excise taxes
 18. Oil and extractive companies' mineral royalty income
 19. Operative builders' interest income from mortgage banking subsidiaries
 20. Other operating revenue
 21. Research and development companies' equity income from research and development joint ventures (when reported as operating income) and government grant income
 22. Retail companies' finance charge revenues
 23. Retail companies' sales of leased departments when corresponding costs are not available but are included in expenses (when costs are available, the net figure is included in Nonoperating Income [Expense])
 24. Royalty income and/or management fees when considered as part of operating income (such as, oil companies, extractive industries, publishing companies)
 25. Security brokers' other income
 26. Shipping companies' operating differential subsidies and income on reserve fund securities shown separately
 27. Utilities' net sales total current operating revenue
- This item excludes:
 1. Discontinued operations (included in Special Items)
 2. Equity in earnings of unconsolidated subsidiaries (included in Nonoperating Income [Expense])
 3. Excise taxes excluded from Sales (Net)
 4. Gain on sale of securities or fixed assets (included in Special Items)
 5. Interest income (included in Nonoperating Income [Expense])
 6. Nonoperating income
 7. Other income
 8. Rental income (included in Nonoperating Income [Expense])

Proactiveness is measured through the cash reinvestment ratio. The cash reinvestment ratio is used to estimate the amount of cash flow that management reinvests in a business. A high cash reinvestment ratio might indicate that management is committed to improving the business. (Source: Compustat)

This concept is the "Operating Activities - Net Cash Flow" *minus* "Cash Dividends". This is divided by the *sum* of "Property Plant, and Equipment (Gross) Total" *plus* "Investments and Advances - Equity Method" *plus* "Investments and

Advances – Other” plus “Intangibles” plus “Assets – Other” plus “Current Assets – Total” less “Current Liabilities – Total”. This total is multiplied by 100.

“Operating Activities – Net Cash Flow” variable

- This item represents the change in cash from all items classified in the Operating Activities section on a Statement of Cash Flows (Format Code = 7) including changes in operating assets and liabilities.
- This item includes (when reported outside of the Operating Activities section):
 - Dividends received from unconsolidated subsidiaries
 - Discontinued operations
- This item excludes common and preferred dividends.
- Increases in cash are presented as positive numbers. Decreases are presented as negative numbers.
- This item is not available for banks.

“Cash Dividends” variable

- This item represents the total amount of cash dividends paid for both common and preferred stock.
- This item includes:
 1. Arrearages from prior years paid in the current year
 2. Cash paid in lieu of fractional shares
 3. Dividends paid by companies acquired using the pooling of interest method
 4. Liquidating dividends or distributions
 5. Partnership distributions
 6. Patronage dividends that are not included in Cost of Goods Sold
 7. Subchapter S distributions
- This item excludes:
 1. Cash value of stock dividends
 2. Dividends in kind (other than cash)
 3. Dividends on subsidiary common stock
 4. Minority shareholders’ dividends
 5. Patronage dividends included in Cost of Goods Sold
 6. Preferred dividend requirement paid in common stock

“Property Plant, and Equipment—Total (Gross)” variable

- Property, Plant, and Equipment – Total (Gross) represents the cost of fixed property of a company used in the production of revenue before adjustments for accumulated depreciation, depletion, and amortization.

“Investments and Advances - Equity Method” variable

- This item represents long-term investments and advances to unconsolidated subsidiaries, affiliates and joint ventures in which the

parent company has significant control, as stated in the consolidated financial statements

“Investments and Advances – Other” variable

- This item represents long-term receivables and other investments, and advances including investments in affiliated companies, unconsolidated subsidiaries, and joint ventures in which no equity in earnings has yet been incurred.

“Intangibles”

- This item represents the net value of intangible assets. Intangibles are assets that have no physical existence in themselves but represent rights to enjoy some privilege.

“Assets – Other” variable

- This item represents those long-term assets that are not property, plant, and equipment, investments and advances, or intangibles.

“Current Assets – Total” variable

- This item represents cash, and other assets which, in the next 12 months, expect to be realized in cash or used in the production of revenue.
- This item is the sum of:
 1. Cash and Short-Term Investments
 2. Current Assets – Other
 3. Inventories – Total
 4. Receivables – Total

“Current Liabilities – Total” variable

- This item represents liabilities due within one year, including the current portion of long-term debt.
- This item is the sum of:
 1. Accounts Payable
 2. Current Liabilities – Other
 3. Debt in Current Liabilities
 4. Income taxes

Risk-taking is measured using three risk dimensions: R&D investments, capital investments, and long-term debt. (Source: Compustat).

“Research and Development Expense” variable

- This item represents all costs that relate to the development of new products or services. The amount reflects the company’s contribution to research and development.
- This item includes:
 1. Company-sponsored research and development

2. Purchased research and development when reported as a special item
 3. Research and development expense from continuing operations (for companies engaged in the primary business of research and development)
 4. Software development expense
- This item excludes:
 1. Amortization of software costs for companies that recognize software revenues
 2. Amortization of purchased software
 3. Customer- or government-sponsored research and development
 4. Customer-sponsored software expense
 5. Engineering expense
 6. Extractive industry activities (prospecting, acquisition of mineral rights, drilling, and mining)
 7. Inventor royalties
 8. Market research and testing
 9. Purchased technology.
 10. Research and development from discontinued operations
 11. Support expense

“Invested Capital – Total” variable

- This item represents the sum of: (1) Common Equity – Total, (2) Long-Term Debt – Total, (3) Minority Interest (Balance Sheet), and (4) Preferred Stock – Total
- This item may include the current portion of long-term debt when long-term debt is footnoted indicating long-term debt includes the current portion.
- This item excludes:
 1. Deferred income tax reserve
 2. Investment tax credit

“Long-Term Debt – Total” variable

- This item represents debt obligations due more than one year from the company’s Balance Sheet date or due after the current operating cycle.
- This item includes:
 1. Advances to finance construction
 2. Bonds, mortgages, and similar debt
 3. ESOP loan guarantees
 4. Extractive industries’ advances for exploration and development
 5. Forestry and paper companies’ timber contracts
 6. Gold and bullion loans

7. Guaranteed Preferred Beneficial Interests in Corporation's Junior Subordinated Deferred Interest Debentures
 8. Indebtedness to affiliates
 9. Industrial revenue bonds
 10. Installment Obligations – nonrecourse
 11. Line of credit, when reclassified as a non-current liability
 12. Loans
 13. Loans on insurance policies
 14. Long-term lease obligations (capitalized lease obligations)
 15. Mandatorily Redeemable Capital Securities of Subsidiary Trust
 16. Notes payable, due within one year to be refunded by long-term debt when carried as noncurrent liability
 17. Obligations called “notes” or “debt” whether or not they are interest-bearing
 18. Obligations requiring interest payment that are not specified by type
 19. Production payments and advances for exploration and development
 20. Publishing companies' royalty contracts payable
 21. Purchase obligations and payments to officers (when listed as long-term liabilities)
 22. Unamortized debt discount
- This item excludes:
 1. Accounts payable due after one year (included in Liabilities – Other)
 2. Accrued interest on long-term debt (included in Liabilities – Other)
 3. Chapter XI bankruptcy terms
 4. Current portion of long-term debt (included in Current Liabilities)
 5. Customers' deposits on bottles, kegs, and cases (included in Liabilities – Other)
 6. Deferred compensation
 7. Subsidiary preferred stock (included in Minority Interest)

Corporate Culture under the CVF and Words Lists

To define and measure organizational culture, the current research relies on Quinn and Rohrbaugh's (1983) competing values framework (CVF), which was thoroughly examined and summarized in Cameron et al. (2014). This framework is widely represented in organizations and provides a theoretical basis for straightforwardly defining and understanding corporate culture. The CVF identifies four major types of corporate culture, which are positioned across two axes: flexibility versus stability and internal versus external orientation (Figure 3).

Fiordelisi and Ricci (2014) identify four lists of words that are associated with each type of corporate culture suggested by the CVF. The authors use a two-step procedure to identify the words associated with each of the four corporate culture categories. In the first stage, Fiordelisi and Ricci (2014) identify words related to each type of culture orientation—supported by the ideas of Cameron et al. (2006). In the second stage, the authors look up synonyms of these words in the Harvard IV-4 Psychosocial Dictionary and retain all variations of a given word (e.g., collaborate, collaboration, collaborated, etc.).

Measuring Culture: Word Lists

Culture Type	Word List
Control	capab*, collectiv*, commit*, competenc*, conflict*, consens*, control*, coordin*, cultur*, decentr*, employ*, empower*, engag*, expectat*, facilitator*, hir*, interpers*, involv*, life*, long-term*, loyal*, mentor*, monit*, mutual*, norm*, parent*, partic*, procedur*, productiv*, retain*, reten*, skill*, social*, tension*, value*
Collaboration	boss*, burocr*, cautio*, cohes*, certain*, chief*, collab*, conservat*, cooperat*, detail*, document*, efficien*, error*, fail*, help*, human*, inform*, logic*, method*, outcom*, partner*, people*, predictab*, relation*, qualit*, regular*, solv*, share*, standard*, team*, teamwork*, train*, uniform*, work group*
Competition	achiev*, acqui*, aggress*, agreem*, attack*, budget*, challeng*, charg*, client*, compet*, customer*, deliver*, direct*, driv*, excellen*, expand*, fast*, goal*, growth*, hard*, invest*, market*, mov*, outsourc*, performanc*, position*, pressur*, profit*, rapid*, reputation*, result*, revenue*, satisf*, scan*, succes*, signal*, speed*, strong, superior, target*, win*
Creation	adapt*, begin*, chang*, creat*, discontin*, dream*, elabor*, entrepre*, envis*, experim*, fantas*, freedom*, futur*, idea*, init*, innovat*, intellec*, learn*, new*, origin*, pioneer*, predict*, radic*, risk*, start*, thought*, trend*, unafra*, ventur*, vision*

Adopted from Fiordelisi and Ricci (2014).

Using Fiordelisi & Ricci's (2014) word lists, I count the number of times each word appears in the 10-K filing of a given company each year and calculate the relative frequency of the respective culture orientation by dividing the total appearances of the related words by the total number of words used. A final culture score is calculated for each cultural orientation by averaging across the five years.

REFERENCES

- Aldrich, H. E., & Cliff, J. E. (2003). The pervasive effects of family on entrepreneurship: Toward a family embeddedness perspective. *Journal of Business Venturing*, 18(5), 573-596.
- Amabile, T. M. (1988). A model of creativity and innovation in organizations. *Research in Organizational Behavior*, 10(1), 123-167.
- Anderson, B. S., Kreiser, P. M., Kuratko, D. F., Hornsby, J. S., & Eshima, Y. (2015). Reconceptualizing entrepreneurial orientation. *Strategic Management Journal*, 36(10), 1579-1596.
- Arbaugh, J. B., Cox, L. W., & Camp, S. M. (2005). Nature or nurture? Testing the direct and interaction effects of entrepreneurial orientation, national culture, and growth strategy on value creation? In S.A. Zahra, C.G. Brush, R.T. Harrison, J.E. Sohl, P. Davidsson, M. Lerner, J. Wiklund, J. Fiet, C.M. Mason, M. Wright, P.C. Greene, & D. Shepherd (Eds.) *Frontiers of Entrepreneurship Research* (pp. 464-478). Wellesley, MA: Babson College.
- Ashford, S. J. (1988). Individual strategies for coping with stress during organizational transitions. *The Journal of Applied Behavioral Science*, 24(1), 19-36.
- Ashford, S. J., Lee, C., & Bobko, P. (1989). Content, cause, and consequences of job insecurity: A theory-based measure and substantive test. *Academy of Management Journal*, 32(4), 803-829.
- Atkinson, P. (2014). *The ethnographic imagination: Textual constructions of reality*. London: Routledge.
- Avlonitis, G. J., & Salavou, H. E. (2007). Entrepreneurial orientation of SMEs, product innovativeness, and performance. *Journal of Business Research*, 60(5), 566-575.
- Baumrind, D. (1971). Current patterns of parental authority. *Developmental Psychology*, 4(1p2), 1-103.
- Bell, R. G., Filatotchev, I., & Aguilera, R. V. (2014). Corporate governance and investors' perceptions of foreign IPO value: An institutional perspective. *Academy of Management Journal*, 57(1), 301-320.

- Bergfeld, M. M. H., & Weber, F. M. (2011). Dynasties of innovation: Highly performing German family firms and the owners' role for innovation. *International Journal of Entrepreneurship and Innovation Management*, 13(1), 80-94.
- Bordia, P., Restubog, S. L. D., Jimmieson, N. L., & Irmer, B. E. (2011). Haunted by the past: Effects of poor change management history on employee attitudes and turnover. *Group & Organization Management*, 36(2), 191-222.
- Burgelman, R. A. (1983). A process model of internal corporate venturing in the diversified major firm. *Administrative Science Quarterly*, 28(2), 223-244.
- Cameron, K.S., & Freeman, S.J. (1991). *Cultural congruence, strength and type: Relationships to effectiveness*. In R.W. Woodman & W.A. Passmore (Eds.), *Research in Organization Change and Development*, Vol.5. (pp. 23-58). Greenwich, CT: JAI Press.
- Cameron, K. S., Quinn, R. E., DeGraff, J., & Thakor, A. V. (2006). *Competing values leadership: Creating value in organizations*. Northampton, MA: Edward Edgar Publishing.
- Cameron, K. S., Quinn, R. E., DeGraff, J., & Thakor, A. V. (2014). *Competing values leadership*. Northampton, MA.: Edward Elgar Publishing.
- Carmon, A. F., & Pearson, J. C. (2013). Family business employees' family communication and workplace experiences. *Journal of Family Business Management*, 3(2), 88-107.
- Carpenter, M. A. (2002). The implications of strategy and social context for the relationship between top management team heterogeneity and firm performance. *Strategic Management Journal*, 23(3), 275-284.
- Casillas, J. C., Moreno, A. M., & Barbero, J. L. (2010). A configurational approach of the relationship between entrepreneurial orientation and growth of family firms. *Family Business Review*, 23(1), 27-44.
- Chan Kim, W., Hwang, P., & Burgers, W. P. (1989). Global diversification strategy and corporate profit performance. *Strategic Management Journal*, 10(1), 45-57.
- Chua, J. H., Chrisman, J. J., Steier, L. P., & Rau, S. B. (2012). Sources of Heterogeneity in Family Firms: An Introduction. *Entrepreneurship Theory and Practice*, 36(6), 1103-1113.
- Combs, J. G., Crook, T. R., & Shook, C. L. (2005). The dimensionality of organizational performance and its implications for strategic management research. *Research Methodology in Strategy and Management*, 2(5), 259-286.

- Covin, J. G., & Covin, T. J. (1990). Competitive aggressiveness, environmental context, and small firm performance. *Entrepreneurship Theory and Practice*, 14(4), 35-50.
- Covin, J. G., Green, K. M., & Slevin, D. P. (2006). Strategic process effects on the entrepreneurial orientation–sales growth rate relationship. *Entrepreneurship Theory and Practice*, 30, 57-81.
- Covin, J. G., & Slevin, D. P. (1986). The development and testing of an organizational-level entrepreneurship scale. In R. Ronstadt, J.A. Hornaday, R. Peterson, & K.H. Vesper (Eds.), *Frontiers of Entrepreneurship Research* (pp. 628-639). Wellesley, MA: Babson College.
- Covin, J. G. & Slevin, D. P. (1989). Strategic management of small firms in hostile and benign environments. *Strategic Management Journal*, 10, 75-87.
- Covin, J. G. & Slevin, D. P. (1991). A conceptual model of entrepreneurship as firm behavior. *Entrepreneurship Theory and Practice*, 16, 7-25.
- Covin, J. G., Slevin, D. P., & Schultz, R. L. (1994). Implementing strategic missions: Effective strategic, structural and tactical choices. *Journal of Management Studies*, 31(4), 481-506.
- Covin, J. G., & Wales, W. J. (2019). Crafting high-impact entrepreneurial orientation research: Some suggested guidelines. *Entrepreneurship Theory and Practice*, 43, 3-18.
- Craig, J. B., Dibrell, C., & Garrett, R. (2014). Examining relationships among family influence, family culture, flexible planning systems, innovativeness and firm performance. *Journal of Family Business Strategy*, 5(3), 229-238.
- Crilly, D., Zollo, M., & Hansen, M. T. (2012). Faking it or muddling through? Understanding decoupling in response to stakeholder pressures. *Academy of Management Journal*, 55(6), 1429-1448.
- D'Aveni, R. (1994). *Hypercompetition*. New York, NY.: Free Press.
- Davis, P. (1983). Realizing the potential of the family business. *Organizational Dynamics*, 12(1), 47-56.
- Davis, P., & Stern, D. (1981). Adaptation, survival, and growth of the family business: An integrated systems perspective. *Human Relations*, 34(4), 207-224.
- De Clercq, D., Dimov, D., & Thongpapanl, N. T. (2010). The moderating impact of internal social exchange processes on the entrepreneurial orientation–performance relationship. *Journal of Business Venturing*, 25(1), 87-103.

- De Clercq, D., Castañer, X., & Belausteguigoitia, I. (2011). Entrepreneurial initiative selling within organizations: Towards a more comprehensive motivational framework. *Journal of Management Studies*, 48(6), 1269-1290.
- De Massis, A., Chirico, F., Kotlar, J., & Naldi, L. (2014). The temporal evolution of proactiveness in family firms: The horizontal S-curve hypothesis. *Family Business Review*, 27(1), 35-50.
- Deephouse, D. L., & Jaskiewicz, P. (2013). Do family firms have better reputations than non-family firms? An integration of socioemotional wealth and social identity theories. *Journal of Management Studies*, 50(3), 337-360.
- DeGraff, J., & Lawrence, K. A. (2002). *Creativity at work: Developing the right practices to make innovation happen*, San Francisco, CA.: Jossey-Bass.
- Dess, G. G., & Lumpkin, G. T. (2005). The role of entrepreneurial orientation in stimulating effective corporate entrepreneurship. *Academy of Management Perspectives*, 19(1), 147-156.
- Dess, G. G., Lumpkin, G. T., & Covin, J. G. (1997). Entrepreneurial strategy making and firm performance: Tests of contingency and configurational models. *Strategic Management Journal*, 18(9), 677-695.
- Devers, C. E., McNamara, G., Wiseman, R. M., & Arrfelt, M. (2008). Moving closer to the action: Examining compensation design effects on firm risk. *Organization Science*, 19(4), 548-566.
- DiFonzo, N., & Bordia, P. (2002). Corporate rumor activity, belief and accuracy. *Public Relations Review*, 28(1), 1-19.
- Duran, P., Kammerlander, N., Van Essen, M., & Zellweger, T. (2016). Doing more with less: Innovation input and output in family firms. *Academy of Management Journal*, 59(4), 1224-1264.
- Dyer W. G. Jr, (2006). Examining the “family effect” on firm performance. *Family Business Review*, 19(4), 253-273.
- Eddleston, K. A., & Kellermanns, F. W. (2007). Destructive and productive family relationships: A stewardship theory perspective. *Journal of Business Venturing*, 22(4), 545-565.
- Eddleston, K. A., Kellermanns, F. W., & Zellweger, T. M. (2012). Exploring the entrepreneurial behavior of family firms: Does the stewardship perspective explain differences?. *Entrepreneurship Theory and Practice*, 36(2), 347-367.

- Eisenhardt, K. M. (1989). Agency theory: An assessment and review. *Academy of Management Review*, 14(1), 57-74.
- Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic capabilities: what are they? *Strategic Management Journal*, 21(10-11), 1105-1121.
- Engelen, A., Gupta, V., Strenger, L., & Brettel, M. (2015). Entrepreneurial orientation, firm performance, and the moderating role of transformational leadership behaviors. *Journal of Management*, 41(4), 1069-1097.
- Ensley, M. D., J. W. Carland and J. Carland (2000). 'Investigating the existence of the lead entrepreneur', *Journal of Small Business Management*, 38, pp. 59-77.
- Fiordelisi, F., & Ricci, O. (2014). Corporate culture and CEO turnover. *Journal of Corporate Finance*, 28, 66-82.
- Fiss, P. C. (2007). A set-theoretic approach to organizational configurations. *Academy of Management Review*, 32(4), 1180-1198.
- Fiss, P. C. (2011). Building better causal theories: A fuzzy set approach to typologies in organization research. *Academy of Management Journal*, 54(2), 393-420.
- Fitzpatrick, M. A., & Ritchie, L. D. (1994). Communication schemata within the family: Multiple perspectives on family interaction. *Human Communication Research*, 20(3), 275-301.
- Forster, M., Loughran, T., & McDonald, B. (2009). Commonality in codes of ethics. *Journal of Business Ethics*, 90(2), 129-139.
- Frambach, R. T., Fiss, P. C., & Ingenbleek, P. T. (2016). How important is customer orientation for firm performance? A fuzzy set analysis of orientations, strategies, and environments. *Journal of Business Research*, 69(4), 1428-1436.
- George, G., Robley Wood Jr, D., & Khan, R. (2001). Networking strategy of boards: Implications for small and medium-sized enterprises. *Entrepreneurship & Regional Development*, 13(3), 269-285.
- Goodman, E. A., Zammuto, R. F., & Gifford, B. D. (2001). The competing values framework: Understanding the impact of organizational culture on the quality of work life. *Organization Development Journal*, 19(3), 58.
- Graham, J. R., Harvey, C. R., Popadak, J., & Rajgopal, S. (2017) *Corporate culture: Evidence from the field* (No. w3255). Cambridge, MA: National Bureau of Economic Research.

- Grandori, A., & Furnari, S. (2008). A chemistry of organization: Combinatory analysis and design. *Organization Studies*, 29(3), 459-485.
- Greckhamer, T. (2011). Cross-cultural differences in compensation level and inequality across occupations: A set-theoretic analysis. *Organization Studies*, 32, 85-115.
- Greckhamer, T. (2016). CEO compensation in relation to worker compensation across countries: The configurational impact of country-level institutions. *Strategic Management Journal*, 37(4), 793-815.
- Greckhamer, T., Misangyi, V. F., Elms, H., & Lacey, R. (2008). Using qualitative comparative analysis in strategic management research: An examination of combinations of industry, corporate, and business-unit effects. *Organizational Research Methods*, 11(4), 695-726.
- Gregory, B. T., Harris, S. G., Armenakis, A. A., & Shook, C. L. (2009). Organizational culture and effectiveness: A study of values, attitudes, and organizational outcomes. *Journal of Business Research*, 62(7), 673-679.
- Hall, B. H. (2002). The financing of research and development. *Oxford Review of Economic Policy*, 18, 35-51.
- Hansen, J. A. (1992). Innovation, firm size, and firm age. *Small Business Economics*, 4, 37-44.
- Hartnell, C. A., Ou, A. Y., & Kinicki, A. (2011). Organizational culture and organizational effectiveness: A meta-analytic investigation of the competing values framework's theoretical suppositions. *Journal of Applied Psychology*, 96(4), 677-694.
- Hartnell, C. A., Ou, A. Y., Kinicki, A. J., Choi, D., & Karam, E. P. (2019). A meta-analytic test of organizational culture's association with elements of an organization's system and its relative predictive validity on organizational outcomes. *Journal of Applied Psychology*. 104(6), 832-850.
- Hernandez-Perlines, F. (2018). Moderating effect of absorptive capacity on the entrepreneurial orientation of international performance of family businesses. *Journal of Family Business Management*, 8, 58-74.
- Hitt, M. A., Ireland, R. D., Camp, S. M., & Sexton, D. L. (2001). Strategic entrepreneurship: Entrepreneurial strategies for wealth creation. *Strategic Management Journal*, 22(6-7), 479-491.
- Hofstede, G., Neuijen, B., Ohayv, D. D., & Sanders, G. (1990). Measuring organizational cultures: A qualitative and quantitative study across twenty cases. *Administrative Science Quarterly*, 35(2), 286-316.

- Hui, C., & Lee, C. (2000). Moderating effects of organization-based self-esteem on organizational uncertainty: Employee response relationships. *Journal of Management*, 26(2), 215-232.
- Hult, G. T. M., Snow, C. C., & Kandemir, D. (2003). The role of entrepreneurship in building cultural competitiveness in different organizational types. *Journal of Management*, 29(3), 401-426.
- Ireland, R. D., Hitt, M. A., & Sirmon, D. G. (2003). A model of strategic entrepreneurship: The construct and its dimensions. *Journal of Management*, 29(6), 963-989.
- James, A. E., Jennings, J. E., & Breitreuz, R. S. (2012). Worlds apart? Rebridging the distance between family science and family business research. *Family Business Review*, 25(1), 87-108.
- Jaskiewicz, P., Combs, J. G., Shanine, K. K., & Kacmar, K. M. (2017). Introducing the family: A review of family science with implications for management research. *Academy of Management Annals*, 11(1), 309-341.
- Jehn, K. A. (1995). A multimethod examination of the benefits and detriments of intragroup conflict. *Administrative Science Quarterly*, 256-282.
- Jehn, K. A., & Bendersky, C. (2003). Intragroup conflict in organizations: A contingency perspective on the conflict-outcome relationship. *Research in Organizational Behavior*, 25, 187-242.
- Jimmieson, N. L., White, K. M., & Peach, M. (2004, August). Employee readiness for change: Utilizing the theory of planned behavior to inform change management. In *Academy of Management Proceedings*, 2004(1), C1-C6.
- Johansson, F. (2017). *The Medici Effect: what elephants and epidemics can teach us about innovation*. Harvard Business Review Press.
- Kallmuenzer, A., Strobl, A., & Peters, M. (2018). Tweaking the entrepreneurial orientation–performance relationship in family firms: The effect of control mechanisms and family-related goals. *Review of Managerial Science*, 12(4), 855-883.
- Kellermanns, F. W., Eddleston, K. A., Barnett, T., & Pearson, A. (2008). An exploratory study of family member characteristics and involvement: Effects on entrepreneurial behavior in the family firm. *Family Business Review*, 21(1), 1-14.

- Kellermanns, F. W., Eddleston, K. A., Sarathy, R., & Murphy, F. (2012). Innovativeness in family firms: A family influence perspective. *Small Business Economics*, 38(1), 85-101.
- Ketchen Jr, D. J., Thomas, J. B., & Snow, C. C. (1993). Organizational configurations and performance: A comparison of theoretical approaches. *Academy of Management Journal*, 36(6), 1278-1313.
- Koerner, A. F., & Fitzpatrick, M. A. (1997). Family type and conflict: The impact of conversation orientation and conformity orientation on conflict in the family. *Communication Studies*, 48(1), 59-75.
- Koerner, A. F., & Fitzpatrick, M. A. (2002a). Toward a theory of family communication. *Communication Theory*, 12(1), 70-91.
- Koerner, A. F., & Fitzpatrick, M. A. (2002b). Understanding family communication patterns and family functioning: The roles of conversation orientation and conformity orientation. *Annals of the International Communication Association*, 26(1), 36-65.
- Koesten, J. (2004). Family communication patterns, sex of subject, and communication competence. *Communication Monographs*, 71(2), 226-244.
- Kogut, B., MacDuffie, J. P., & Ragin, C. (2004). Prototypes and strategy: Assigning causal credit using fuzzy sets. *European Management Review*, 1(2), 114-131.
- Lawrence, P. R., & Lorsch, J. W. (1967). Differentiation and integration in complex organizations. *Administrative Science Quarterly*, 12, 1-47.
- Lee, C., Lee, K., & Pennings, J. M. (2001). Internal capabilities, external networks, and performance: a study on technology-based ventures. *Strategic Management Journal*, 22(6-7), 615-640.
- Lim, E. N., & McCann, B. T. (2014). Performance feedback and firm risk taking: The moderating effects of CEO and outside director stock options. *Organization Science*, 25(1), 262-282.
- Lumpkin, G. T., & Brigham, K. H. (2011). Long-term orientation and intertemporal choice in family firms. *Entrepreneurship Theory and Practice*, 35(6), 1149-1169.
- Lumpkin, G. T., Brigham, K. H., & Moss, T. W. (2010). Long-term orientation: Implications for the entrepreneurial orientation and performance of family businesses. *Entrepreneurship & Regional Development*, 22(3-4), 241-264.

- Lumpkin, G. T., & Dess, G. G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of Management Review*, 21, 135-172.
- Lumpkin, G. T., & Dess, G. G. (2001). Linking two dimensions of entrepreneurial orientation to firm performance: The moderating role of environment and industry life cycle. *Journal of Business Venturing*, 16(5), 429-451.
- Lumpkin, G. T., Wales, W. J., & Ensley, M. D. (2006, August). Entrepreneurial orientation effects on new venture performance: The moderating role of venture age. In *Academy of Management Proceedings* (Vol. 2006, No. 1, pp. N1-N6). Briarcliff Manor, NY 10510: Academy of Management.
- Marinova, S. V., Cao, X., & Park, H. (2019). Constructive organizational values climate and organizational citizenship behaviors: A configurational view. *Journal of Management*, 45(5), 2045-2071.
- Martin, W. L., & Lumpkin, G. T. (2003). From entrepreneurial orientation to family orientation: Generational differences in the management of family businesses. In *Frontiers of Entrepreneurship Research: Proceedings of the 23rd annual Entrepreneurship Research Conference* (pp. 309-321). Wellesley, MA: Babson College.
- Meyer, A. D., Tsui, A. S., & Hinings, C. R. (1993). Configurational approaches to organizational analysis. *Academy of Management Journal*, 36(6), 1175-1195.
- Miller, D. (1983). The correlates of entrepreneurship in three types of firms. *Management Science*, 29(7), 770-791.
- Miller, D. (1986). Configurations of strategy and structure: Towards a synthesis. *Strategic Management Journal*, 7(3), 233-249.
- Miller, D. (2011). Miller (1983) revisited: A reflection on EO research and some suggestions for the future. *Entrepreneurship Theory and Practice*, 35(5), 873-894.
- Miller, D., & Friesen, P. H. (1978). Archetypes of strategy formulation. *Management Science*, 24(9), 921-933.
- Miller, D., & Le Breton-Miller, I. (2011). Governance, social identity, and entrepreneurial orientation in closely held public companies. *Entrepreneurship Theory and Practice*, 35(5), 1051-1076.
- Misangyi, V. F., & Acharya, A. G. (2014). Substitutes or complements? A configurational examination of corporate governance mechanisms. *Academy of Management Journal*, 57(6), 1681-1705.

- Monsen, E., & Boss, W. R. (2009). The impact of strategic entrepreneurship inside the organization: Examining job stress and employee retention. *Entrepreneurship Theory and Practice*, 33, 71-104.
- Muñoz, P., & Dimov, D. (2015). The call of the whole in understanding the development of sustainable ventures. *Journal of Business Venturing*, 30(4), 632-654.
- Naldi, L., Nordqvist, M., Sjöberg, K., & Wiklund, J. (2007). Entrepreneurial orientation, risk taking, and performance in family firms. *Family Business Review*, 20, 33-47.
- Nelson, A., Cooper, C. L., & Jackson, P. R. (1995). Uncertainty amidst change: The impact of privatization on employee job satisfaction and well-being. *Journal of Occupational and Organizational Psychology*, 68(1), 57-71.
- Nordqvist, M., Habbershon, T. G., & Melin, L. (2008). Transgenerational entrepreneurship: Exploring entrepreneurial orientation in family firms. *Frontiers in European Entrepreneurship Research*, 93-116.
- Ocasio, W., Laamanen, T., & Vaara, E. (2018). Communication and attention dynamics: An attention-based view of strategic change. *Strategic Management Journal*, 39(1), 155-167.
- Olson, P. D., Zuiker, V. S., Danes, S. M., Stafford, K., Heck, R. K., & Duncan, K. A. (2003). The impact of the family and the business on family business sustainability. *Journal of Business Venturing*, 18(5), 639-666.
- Pelham, A. M., & Wilson, D. T. (1995). A longitudinal study of the impact of market structure, firm structure, strategy, and market orientation culture on dimensions of small-firm performance. *Journal of the Academy of Marketing Science*, 24(1), 27-43.
- Quinn, R. E. (1988). *Beyond rational management: Mastering the paradoxes and competing demands of high performance*. San Francisco, CA.: Jossey-Bass.
- Quinn, R. E., & Rohrbaugh, J. (1983). A spatial model of effectiveness criteria: Towards a competing values approach to organizational analysis. *Management Science*, 29(3), 363-377.
- Rafferty, A. E., & Griffin, M. A. (2006). Perceptions of organizational change: A stress and coping perspective. *Journal of Applied Psychology*, 91(5), 1154.
- Ragin, C. C. (2000). *Fuzzy-set social science*. Chicago, IL: University of Chicago Press.
- Ragin, C. C. (2008). *Redesigning social inquiry: Fuzzy sets and beyond*. Chicago, IL: University of Chicago Press.

- Ragin, C. C., & Fiss, P. C. (2008). Net effects analysis versus configurational analysis: An empirical demonstration. *Redesigning social inquiry: Fuzzy sets and beyond*, 240, 190-212.
- Ragin, C. C., & Rihoux, B. (Eds.). (2009). *Configurational comparative methods: Qualitative comparative analysis (QCA) and related techniques*. New York: Sage.
- Rauch, A., Wiklund, J., Frese, M., & Lumpkin, G. T. (2004). Entrepreneurial orientation and business performance: Cumulative empirical evidence. *Frontiers of Entrepreneurship Research*, 1, 64-1. Wellesley, MA: Babson College.
- Rauch, A., Wiklund, J., Lumpkin, G. T., & Frese, M. (2009). Entrepreneurial orientation and business performance: An assessment of past research and suggestions for the future. *Entrepreneurship Theory and Practice*, 33(3), 761-787.
- Ritchie, L. D. (1991). Family communication patterns: An epistemic analysis and conceptual reinterpretation. *Communication Research*, 18(4), 548-565.
- Ritchie, L. D., & Fitzpatrick, M. A. (1990). Family communication patterns: Measuring intrapersonal perceptions of interpersonal relationships. *Communication Research*, 17(4), 523-544.
- Rogoff, E. G., & Heck, R. K. Z. (2003). Evolving research in entrepreneurship and family business: Recognizing family as the oxygen that feeds the fire of entrepreneurship. *Journal of Business Venturing*, 18(5), 559-566.
- Rosenbusch, N., Rauch, A., & Bausch, A. (2013). The mediating role of entrepreneurial orientation in the task environment–performance relationship: A meta-analysis. *Journal of Management*, 39(3), 633-659.
- Sanchez-Ruiz, P., Daspit, J. J., Holt, D. T., & Rutherford, M. W. (2019). Family social capital in the family firm: A taxonomic classification, relationships with outcomes, and directions for advancement. *Family Business Review*, 32(2), 131-153.
- Schneider, C. Q., & Wagemann, C. (2012). *Set-theoretic methods for the social sciences: A guide to qualitative comparative analysis*. Cambridge, UK: Cambridge University Press.
- Schultz, M. (1991). Transitions between symbolic domains in organizations. *Organization Studies*, 12(4), 489-506.
- Schumpeter, J. A. (1934). *The theory of economic development*. Cambridge, MA: Harvard University Press.

- Schrodt, P., Ledbetter, A. M., & Ohrt, J. K. (2007). Parental confirmation and affection as mediators of family communication patterns and children's mental well-being. *The Journal of Family Communication*, 7(1), 23-46.
- Sciascia, S., Clinton, E., Nason, R. S., James, A. E., & Rivera-Algarin, J. O. (2013). Family communication and innovativeness in family firms. *Family Relations*, 62(3), 429-442.
- Scott, S. G., & Bruce, R. A. (1994). Determinants of innovative behavior: A path model of individual innovation in the workplace. *Academy of Management Journal*, 37(3), 580-607.
- Segrin, C., & Flora, J. (2005). Defining family communication and family functioning. *Family Communication*, 3-26.
- Short, J. C., Payne, G. T., Brigham, K. H., Lumpkin, G. T., & Broberg, J. C. (2009). Family firms and entrepreneurial orientation in publicly traded firms: A comparative analysis of the S&P 500. *Family Business Review*, 22(1), 9-24.
- Shotter, J. (1997). Conversational realities: Constructing life through Language. *Human Studies*, 20, 117-123.
- Sieger, P., Zellweger, T., & Aquino, K. (2013). Turning agents into psychological principals: aligning interests of non-owners through psychological ownership. *Journal of Management Studies*, 50(3), 361-388.
- Sirmon, D. G., & Hitt, M. A. (2003). Managing resources: Linking unique resources, management, and wealth creation in family firms. *Entrepreneurship Theory and Practice*, 27(4), 339-358.
- Smith, S. R., Hamon, R. R., Ingoldsby, B. B., & Miller, J. E. (2012). *Exploring Family Theories*. New York, NY: Oxford University Press.
- Stam, W., & Elfring, T. (2008). Entrepreneurial orientation and new venture performance: The moderating role of intra-and extraindustry social capital. *Academy of Management Journal*, 51(1), 97-111.
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509-533.
- Ten Have, S., Ten Have, W., Stevens, F., Vander Elst, M., & Pol-Coyne, F. (2003). *Key management models: The management tools and practices that will improve your business*, London: Prentice-Hall.
- Wales, W. J. (2016). Entrepreneurial orientation: A review and synthesis of promising research directions. *International Small Business Journal*, 34, 3-15.

- Wales, W. J., Gupta, V. K., & Mousa, F. T. (2013). Empirical research on entrepreneurial orientation: An assessment and suggestions for future research. *International Small Business Journal*, 31(4), 357-383.
- Wales, W. J., Monsen, E., & McKelvie, A. (2011). The organizational pervasiveness of entrepreneurial orientation. *Entrepreneurship Theory and Practice*, 35(5), 895-923.
- Wales, W. J., Parida, V., & Patel, P. C. (2013). Too much of a good thing? Absorptive capacity, firm performance, and the moderating role of entrepreneurial orientation. *Strategic Management Journal*, 34(5), 622-633.
- Wiklund, J. (1999). The sustainability of the entrepreneurial orientation—performance relationship. *Entrepreneurship Theory and Practice*, 24(1), 37-48.
- Wiklund, J., & Shepherd, D. (2003). Knowledge-based resources, entrepreneurial orientation, and the performance of small and medium-sized businesses. *Strategic Management Journal*, 24(13), 1307-1314.
- Wiklund, J., & Shepherd, D. (2005). Entrepreneurial orientation and small business performance: a configurational approach. *Journal of Business Venturing*, 20, 71-91.
- Wiklund, J., & Shepherd, D. A. (2011). Where to from here? EO-as-experimentation, failure, and distribution of outcomes. *Entrepreneurship Theory and Practice*, 35(5), 925-946.
- Woodman, R. W., Sawyer, J. E., & Griffin, R. W. (1993). Toward a theory of organizational creativity. *Academy of Management Review*, 18(2), 293-321.
- Woodside, A. G. (2013). Moving beyond multiple regression analysis to algorithms: Calling for adoption of a paradigm shift from symmetric to asymmetric thinking in data analysis and crafting theory. *Journal of Business Research*, 66(4), 463-472.
- Zahra, S. A. (1991). Predictors and financial outcomes of corporate entrepreneurship: An exploratory study. *Journal of Business Venturing*, 6(4), 259-285.
- Zahra, S. A. (2005). Entrepreneurial risk taking in family firms. *Family Business Review*, 18(1), 23-40.
- Zahra, S. A., & Covin, J. (1995). Contextual influences on the corporate entrepreneurship—performance relationship: A longitudinal analysis. *Journal of Business Venturing*, 10, 43-58.

Zellweger, T. M., Kellermanns, F. W., Chrisman, J. J., & Chua, J. H. (2012). Family control and family firm valuation by family CEOs: The importance of intentions for transgenerational control. *Organization Science*, 23(3), 851-868.