

A Configurational Approach to Investigating the Relationship Between Organizational Culture and Organizational Effectiveness Using Fuzzy-Set Analysis

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Abstract

The theoretical literature on organizational culture strongly emphasizes the multifacetedness of the construct. Nevertheless, empirical research has tended to focus on independent culture dimensions rather than applying a holistic perspective that conceives organizational culture as a complex collective. We addressed this issue by investigating configurations of organizational culture using fuzzy set qualitative comparative analysis (fsQCA) within organizational units of two organizations. Across the two samples (1170 employees in 89 work units of a financial service provider and 998 employees in 49 work units of a fashion retailer), results indicated that culture dimensions do not operate in isolation, but jointly work together in achieving

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different effectiveness outcomes. The results further suggested that several cultural configurations can be equally effective in reaching the same outcome, and that a clan culture is most relevant for achieving low employee turnover, while a market-oriented culture is most relevant for achieving financial effectiveness. With respect to more specific configurations of cultural elements, the results showed some congruencies, but were mixed overall. The discussion focuses on theoretical implications and future directions for applying configurational, set-theoretic approaches to analyzing organizational culture.

Keywords

competing values framework, culture configurations, fuzzy set qualitative comparative analysis, organizational culture, departmental culture, organizational effectiveness, set theory

Ever since the concept of organizational culture became “en vogue” in the early 1980s, the question of how it is related to organizational effectiveness has puzzled practitioners and researchers alike. Companies were intrigued by the idea of using culture as a source of competitive advantage. Scholars have tried to dissect the construct in order to better understand the mechanisms that link culture to effectiveness. Those efforts have borne fruit: While it was anything but undisputed for a long time, the relationship between organizational culture and effectiveness is now widely acknowledged (Ostroff, Kinicki, & Muhammad, 2013; Schneider, Macey, & Erhardt, 2013).

However, the notion of organizational culture as a holistic, multifaceted phenomenon is still scarce in existing empirical research. Instead, most studies focused on individual culture dimensions, an approach that stands in contrast with the theoretical assumption that culture is not just the sum of independent dimensions that can be looked at in an isolated fashion, but rather emerges from the specific composition of its constituent elements (Detert, Schroeder, & Mauriel, 2000). This perspective, which is emphasized in all classic and widely cited definitions of the construct (e.g., Pettigrew, 1979; Schein, 1985; Smircich, 1983), suggests that culture represents a pattern of interlinked values and beliefs within an organization. This misalignment between theory and research is unfortunate since the practice of analyzing culture dimensions individually ignores important synergies and dependencies between cultural facets and can thus lead to simplified conclusions regarding the nature of an organization’s culture and its relationship to effectiveness outcomes.

In order to address this issue, we introduce a novel perspective on the culture-effectiveness link which focuses on the analysis of cultural configurations. As an

alternative to conventional regression-based approaches, we use fuzzy-set qualitative comparative analysis (fsQCA) to better understand which elements of a configuration are relevant for an outcome and how these elements combine to achieve specific effects. This study thus represents an important step towards assessing organizational culture in a way that is closely aligned with the theoretical roots of the construct, as it depicts culture as a complex entity which consists of multiple facets that mutually influence each other. Based on sub-cultures in organizational units¹ within two different companies (sample 1: 1170 employees in 89 organizational units in a financial services firm; sample 2: 998 employees in 49 organizational units in a fashion retailer), we use fsQCA to empirically derive cultural configurations based on the Competing Values Framework (CVF; Cameron & Quinn, 2006; Quinn & Rohrbaugh, 1983), which is one of the most widely used models in organizational culture research. We then investigate how the identified configurations are related to selected indices of organizational effectiveness, namely employee turnover and financial performance. This study thereby contributes to the literature in four ways. First, by applying a configurational perspective, it answers calls in the organizational culture literature (e.g., Hartnell, Ou, & Kinicki, 2011; Kotrba et al., 2012; Ostroff & Schulte, 2014) for a more holistic investigation of organizational culture that takes into account the complex interlinkages between culture dimensions. Second, it advances the field by introducing fsQCA as a method to investigate organizational culture. Compared to other methods, such as regression-based approaches or cluster analysis, fsQCA allows to develop a more profound and differentiated understanding of how different cultural elements might impact a given outcome (Fiss, 2007, 2011; Ostroff & Schulte, 2014). Third, it illuminates the pattern of relationships between the dimensions of the CVF. It thus sheds new light on how the dimensions of the most prominent organizational culture model coexist and interact, a research question whose importance has repeatedly been pointed out in the literature (e.g., Hartnell et al., 2011; Hartnell, Ou, Kinicki, Choi, & Karam, 2019). Fourth, our findings offer interesting perspectives for practitioners intending to shape or change their organization's culture, which are discussed in the final part of this paper.

The Organizational Culture Effectiveness Link and the Issue of Investigating Culture Dimensions Individually

Organizational culture is a complex phenomenon. It is deeply rooted in an organization's history, collectively held, and manifests itself at different organizational levels (Detert et al., 2000; Hartnell et al., 2011). Schein (1985, p. 30) defines organizational culture as “the pattern of basic assumptions that

a given group or organization has invented, discovered, or developed in learning to cope with its problems of external adaption and internal integration, and that has worked well enough to be considered valid, and, therefore, to be taught to new members as the correct way to perceive, think and feel in relation to those problems.” More concisely, but in a similar vein, [Schneider, González-Romá, Ostroff, & West \(2017, p. 468\)](#) see organizational culture as a set of “shared values and basic assumptions that explain why organizations do what they do and focus on what they focus on.” Considering these definitions, it is obvious to assume a direct relationship between the culture of an organization and its performance or effectiveness.

Early reviews of the field, however, doubted the existence of such a relationship (e.g., [Lim, 1995](#); [Siehl & Martin, 1989](#)) and criticized the then-existing studies for insufficient theoretical development and invalidated measures of culture. Meanwhile, research has become more sophisticated, resulting in a better understanding of the concept of organizational culture in general and its relationship to effectiveness outcomes in particular ([Ostroff et al., 2013](#)). Nowadays, the link between culture and effectiveness is widely acknowledged and supported by a large amount of sound studies ([Hartnell et al., 2019](#)).

In most of these studies, organizational culture is assessed using a culture model consisting of a set of different dimensions. Of these models, the Competing Values Framework (CVF; [Cameron & Quinn, 2006](#)) and the Denison Organizational Culture Survey (DOCS; [Denison & Mishra, 1995](#)) are the most widely used. The CVF consists of four culture dimensions named “clan,” “adhocracy,” “market,” and “hierarchy,” while the DOCS uses four similar dimensions named “involvement,” “adaptability,” “mission,” and “consistency.” The common approach is to measure the strength of these culture dimensions. Then, each one is correlated with selected effectiveness criteria. These criteria were never narrowly defined, but varied widely from study to study, thus yielding an eclectic picture of the culture-effectiveness link ([Sackmann, 2011](#)).

[Xenikou and Simosi \(2006\)](#), for example, found that the dimension “adaptability” of the DOCS was positively related to business unit performance. [Taylor, Levy, Boyacigiller, and Beechler \(2008\)](#) found the DOCS dimensions “mission” and “adaptability” to be positively related to organizational commitment. [Brazil, Wakefield, Cloutier, Tennen, and Hall \(2010\)](#) identified positive relationships between the CVF domain “clan” and the criteria job satisfaction and perceived effectiveness, while the CVF domains “hierarchy” and “market” were negatively related to these outcomes. [Joseph and Kibera \(2019\)](#) found the CVF domains “adhocracy,” “market,” and “hierarchy” to have a positive influence on the performance of microfinance

institutes in Africa. Pandey and Moynihan (2006) found that the relationship between bureaucratic red tape and organizational performance was moderated by the CVF domain “adhocracy.”

So far, most studies have applied a conventional, single-dimensional perspective, meaning that each culture dimension is assumed to be related to effectiveness outcomes independently or additively in a linear way. Consequently, correlational or regression-based approaches are usually used to analyze these relationships. While these approaches can precisely identify the average net effect of a variable on an outcome, they are much less suited to analyze under what specific conditions a variable influences an outcome (Fiss, 2007).

This raises some questions considering the theoretical roots of organizational culture. Organizational culture is a concept that has its origins in sociology and anthropology (Denison, 1996). Early works in the field (e.g., Crozier, 1964; Dalton, 1959) took a holistic perspective under which each aspect of an organization’s culture was treated as a part of a larger whole. Pettigrew picked up on this multi-dimensional perspective and emphasized that organizational culture is “...the *system* (emphasis added) of ... publicly and collectively accepted meanings operating for a given group at a given time” (Pettigrew, 1979, p. 574). Other publications that are frequently cited for outlining the theoretical roots of organizational culture also underline the importance of studying culture as a complex pattern of interlinked elements that influence each other (e.g., Martin, 2002; Schein, 1985; Smircich, 1983). Ostroff and Schulte (2014) argue that organizational culture is a “gestalt” system in which dimensions should be examined collectively, not individually, in order to understand the role each dimension plays in the system.

Thus, treating culture dimensions as independent or additive seems not to do justice to the theoretical bandwidth of the construct and may lead to fragmented conclusions. It neglects the notion that only combinations of culture dimensions can really capture the holistic nature of the construct (Ostroff & Schulte, 2014) and might overlook the possibility that patterns of culture dimensions could lead to different outcomes depending on how they are arranged. Complex and nonlinear relationships (e.g., culture dimension A is positively related to effectiveness when combined with culture dimensions B, C, and D, but unrelated or even inversely related when combined with culture dimensions E, F, and G) could thus remain undetected (Fiss, 2007).

Configurations of Organizational Culture

One way to overcome this issue is to study organizational culture and its link to effectiveness through the lens of configurations. Organizational

configurations played an important role in classic strategic management research (e.g., Miles, Snow, Meyer, & Coleman, 1978; Mintzberg, 1979; Porter, 1980) and configurational theory has been used repeatedly to study how combinations of organizational features are linked to effectiveness outcomes (e.g., Ketchen et al., 1997; Payne, 2006). Proponents of configurational approaches consider organizations as complex entities, in which patterns of organizational attributes rather than individual variables are associated with a given outcome. These patterns lead to different results depending on how they are arranged, because according to configuration theory, it is the presence (or absence) of specific other factors that gives a variable meaning or not (Delery & Doty, 1996; Fiss, 2007). Another important aspect of configurational theory is the concept of equifinality, which is defined as the state of achieving a particular outcome through various paths (Short, Payne, & Ketchen, 2008). Equifinality implies that two or more organizational configurations may lead to the same outcome and are thus equally effective.

Applied to the culture-effectiveness link, a configurational approach implies to investigate specific cultural patterns emphasizing the multifacetedness and interdependencies of culture dimensions. Hartnell and colleagues (2011) note that a configurational perspective is particularly suitable for investigating organizational culture, since conceiving culture as a bundle of interlinked elements is consistent with its theoretical foundations and sheds additional light on the complex construct. In a similar vein, Ostroff and Schulte (2014) argue that configurational approaches are very well suited for analyzing organizational culture, since they allow for looking at multiple cultural facets as a gestalt system.

Despite these theoretical reasons, studies that investigate configurations of organizational culture are scarce. The few studies that did use a configurational approach (e.g., Gregory, Armenakis, Harris, & Shook, 2009; Naqshbandi, Kaur, & Ma, 2015) were limited to the assumption that “high” culture profiles, in which all culture dimensions are strongly pronounced, would be beneficial for achieving organizational effectiveness. However, it is the central idea of configurational theory that configurations can take on multiple specific forms and are by no means limited to “high” or “low” configurations, which is why these studies seem to tap only a very small portion of the potential that configurational approaches bear.

Set-Theoretic Approaches to Organizational Culture Configurations

A promising approach to investigating cultural configurations is to apply fuzzy set qualitative comparative analysis (fsQCA), which is a set-theoretic approach. There are many examples for the use of set-theoretic approaches in recent management and organization studies (e.g., Gupta, Crilly, & Greckhamer, 2020; Misangyi & Acharya, 2014; Park, ElSawy, & Fiss, 2017). However, set theory has not been applied yet to organizational culture research, although it allows for "... a fine-grained and complex analysis for assessing how important each of the dimensions in a configuration is in relation to an outcome variable" (Ostroff & Schulte, 2014).

Considering the theoretical foundations of organizational culture, it is unlikely that a single culture dimension is solely "responsible" for leading to a specific (effectiveness) outcome. Instead, it must be assumed that the *presence* of a specific culture dimension is in some cases linked to effectiveness *only* when one or more other cultural elements are also *present*. In other cases, the *presence* of a specific dimension might be linked to effectiveness *only* when specific other cultural elements are *absent*. To make matters even more complex, it is probably not just the presence or the absence of cultural elements, but the *degrees* to which these elements are present or absent that determine whether a specific outcome is achieved. This situation can be best illustrated by the metaphor of a recipe. In a recipe, it is not a single ingredient that leads to the desired outcome. Instead, there are some ingredients that must be used generously, some ingredients that must be added sparingly, and some ingredients that must not be included in order to create a tasty result. Untangling these "recipes" is the core idea of set-theory (Ragin, 2008). In fsQCA, cultural configurations are treated as different types of cases. Each case consists of specific combinations that reflect the presence or absence of different culture variables and thus give the cases their uniqueness (Fiss, 2011). By comparing cases, the researcher is then able to identify complex patterns related to the outcome in question and to discard cultural elements that are unrelated to that outcome. Based on these results, fsQCA can provide a differentiated investigation of which culture variables should be present and/or absent in a given case in order to achieve the outcome (Fiss, 2007; 2011). Moreover, fsQCA allows to determine which variables within a given configuration are of core, peripheral, or no importance with regard to the outcome, thus focusing not only on the presence or absence of variables but also on the degree to which they should be present (or absent). Core elements are defined as those conditions for which the evidence indicates a strong relationship with the outcome of interest and peripheral elements as

those for which the evidence for a relationship with the outcome is weaker (Fiss, 2011). With regard to the “recipe” metaphor used above, core conditions are more “decisive ingredients” than peripheral ones, which can be used more sparingly and play a complimentary or reinforcing role.

These advantages give fsQCA an analytic edge over single-dimensional approaches that are correlation- or regression-based (Legewie, 2013; Ostroff & Schulte, 2014). In a linear regression model, the focus lies on the unique contribution of a variable (and not on showing how variables combine to create outcomes) while holding other variables constant. This is in stark contrast to the basic idea of a configurational approach, which assumes that it is the presence or absence of other factors that gives a variable meaning. Interaction models do allow to detect interdependencies, but interactions that exceed two-way-effects are extremely difficult to interpret. Furthermore, interaction effects are unable to account for equifinality, as they assume that found relationships are relevant for all cases under examination, thus ignoring the possibility of different paths leading to the same outcome (Fiss, 2007).

Set-Theoretic Configurations Within the Competing Values Framework

In order to investigate cultural configurations and how they are related to organizational effectiveness outcomes, we chose the Competing Values Framework (CVF; Cameron & Quinn, 2006; Quinn & Rohrbaugh, 1983) as the underlying model, as it is probably the most widely used taxonomy for assessing organizational culture (Ostroff et al., 2013; Sackmann, 2011; Schneider et al., 2013).

The CVF builds on two bipolar axes: The vertical axis reflects the competing demands of flexibility versus stability, while the horizontal axis differentiates between an internal focus and an external focus. These two axes form a four-quadrant model with the cultural domains *clan*, *adhocracy*, *market*, and *hierarchy* (Cameron & Quinn, 2006).

The *clan domain* is internally oriented and characterized by a flexible organizational structure and a focus on human affiliation. Teamwork, employee involvement, and open communication are typically observed behaviors in clannish organizations. The *adhocracy domain* is externally oriented and supported by a flexible organizational structure. It emphasizes change and flexibility with a primary focus on the external environment. Core values are, for example, adaptability, creativity, and autonomy. The *market domain* is externally oriented with a stable organizational structure. A core belief is that a strong focus on achievement leads to a competitive advantage.

Typically observed behaviors include rigorous planning and aggressiveness towards competitors. Finally, the *hierarchy domain* is internally oriented and is supported by a stable organizational structure. A basic assumption is that control and stability foster effectiveness. Efficiency, timeliness, and smooth processes are very important in hierarchical organizations (Cameron & Quinn, 2006).

By focusing on the CVF, we directly build on the much-cited meta-analysis by Hartnell and colleagues (2011). While CVF theory proposes that the four culture domains of the CVF are, as the name suggests, competing, the meta-analytical results indicated that the domains are much less contradictory than originally proposed. Hartnell et al. assumed that, instead of being limited to one dominant culture, all four domains are present within an organization to some degree, and the presence of one culture domain does not necessarily preempt the existence of another. They stated that "... culture types in different quadrants are not competing or paradoxical. Instead, they coexist and work together" (Hartnell et al., 2011, p. 687) and provided some suggestions how this kind of coexistence might look like. For example, it might be possible that the clan culture's emphasis on collaboration and trust may provide the internal integration needed to foster the market culture's capacity to innovatively meet customers' needs. In such a scenario, different culture dimensions would complement and strengthen each other, and organizational effectiveness would be driven by a complex combination of culture dimensions rather than a single, dominant one (Hartnell et al., 2011, 2019). For this reason, Hartnell and colleagues conclude with an explicit call for analyzing the CVF domains by using configurational approaches.

The idea that not the maximization of one specific CVF domain, but rather the proper balance between different elements is the key to success is in line with the set-theoretic perspective, which suggests that it is not the single "ingredient," but the whole "recipe" that leads to a given outcome. According to set theory, it must be assumed that it is not just the presence of specific culture domains that best explain organizational effectiveness outcomes, but also the absence and the degrees to which culture domains are present or absent (i.e., whether domains are core or peripheral conditions).

We study the link between configurations of the CFV domains to two criteria of organizational effectiveness that are most frequently associated with organizational culture, namely employee-related criteria and financial performance criteria (Hartnell et al., 2011). With regard to employee-related criteria, we focused on employee turnover since it is an objective outcome which directly influences the organization's bottom-line (Nishii & Mayer, 2009) and was named the most important employee-related criterion by the organizations that took part in our study. With regard to financial criteria, we

focused on actual sales performance, which also has the advantage of being an objective, bottom-line indicator and was named the most important financial criterion by the sponsoring organizations.

We based our first proposition on the assumption of equifinality rooted in set theory. Thereafter, more specific propositions on the composition of configurations leading to low turnover and high sales performance are derived.

Equifinality of configurations leading to organizational effectiveness. As mentioned above, the concept of equifinality is one of the main principles of configurational theory. It is defined as the state of achieving a particular outcome through various paths (Short, Payne, & Ketchen, 2008), thus referring to the possibility that a result may be equally explained by alternative sets of conditions (Pappas, 2018). With regard to organizational culture, this would mean that two or more culture configurations lead to the same outcome and are thus equally effective. Fiss (2011) further differentiates between first-order equifinality (two or more configurations with different core elements are associated with the outcome in question) and second-order equifinality (two or more configurations with the same core elements are “surrounded” by different peripheral elements).

We propose that the concept of equifinality also applies to the link between organizational culture and effectiveness. Influential theories of organizational culture (e.g., Denison & Mishra, 1995; Schein, 1985) highlight the fact that there is no such thing as the “one and only” culture that leads to success. Instead, several types of culture might be equally effective since organizations usually operate in dynamic environments and face diverse challenges. This assumption is reflected in theories regarding intra-organizational “cultural ambidexterity” (e.g., Moon, Quigley, & Marr, 2012; Wang & Rafiq, 2014). Building on the extensive stream of research on organizational ambidexterity (e.g., Gupta, Smith, & Shalley, 2006; Tushman & O'Reilly, 1996), these theories suggest that within organizations, subunits might be equally effective with different cultural foundations, since they either specialize in different tasks or have found different ways how to accomplish a given task.

Empirical research seems to support this assumption as there are many studies showing that different cultural domains are associated with employee-related effectiveness criteria (e.g., Lund, 2003; Zavyalova & Kuchеров, 2010) and financial performance (e.g., Denison, Haaland, & Goelzer, 2004; Kotrba et al., 2012). In light of these theoretical and empirical considerations, it can be assumed that there are several ways in which cultural elements (or rather configurations thereof) can influence organizational effectiveness. We therefore propose:

Proposition 1a. No single configuration of CVF dimensions is sufficient for explaining low employee turnover; instead, multiple, equally effective configurations of culture dimensions exist.

Proposition 1b. No single configuration of CVF dimensions is sufficient for explaining high sales performance; instead, multiple, equally effective configurations of culture dimensions exist.

Configurations leading to low employee turnover. A clan culture represents a family-type organization, in which a strong sense of togetherness prevails. Leaders are thought of as mentors and the major task of management is to develop employees and to foster satisfaction (Cameron & Quinn, 2006). Employees working in clan cultures are thus likely to feel a strong sense of affiliation. Behaviors that are typically valued in clannish organizations, such as supporting each other and participating in decision making, create a sense of ownership and commitment (Denison & Mishra, 1995). The cultural elements that constitute the clan domain are, in comparison to the other three domains, most directly geared towards fostering loyalty. Empirical results support this assumption. In their meta-analysis, Hartnell and colleagues (2011) could show that the clan domain had large, significant relationships with job satisfaction and organizational commitment (both of which should be very favorable for low employee turnover). Also, these relationships were significantly stronger than the relationships between these outcomes and other CVF domains. In another recent meta-analysis by Hartnell et al. (2019), clan culture had the strongest relationship of all four CVF domains with relational leadership. Relational leaders develop positive interpersonal processes by building relationships characterized by mutual trust, respect, and support (Hartnell et al., 2019), which should have a positive influence on low employee turnover. We therefore propose:

Proposition 2a. Across all configurations associated with low employee turnover, the clan domain is the most important one. It is hence present as a core condition in most of these configurations.

The CVF domain that shows the second-strongest empirical relationship to positive employee attitudes is adhocracy. In their meta-analysis, Hartnell and colleagues (2011) identified a moderate relationship and suggest that adhocracy (in comparison to clan) might have a less direct effect on employee-related outcomes, playing a rather complimentary or reinforcing role. Adhocracy cultures are coined by high degrees of freedom (Cameron & Quinn, 2006). We know from research on job design that this kind of autonomy strengthens employees' commitment towards the organization since it leads to

experienced meaningfulness and responsibility (e.g., Hackman & Oldham, 1976; Humphrey, Nahrgang, & Morgeson, 2007). A configuration that combines these features with the typical features of a clannish organization should thus be associated with positive attitudes towards the workplace, which is likely to result in low turnover rates. In such a configuration, the clan domain probably plays the key role (as a core condition) while the adhocracy domain contributes to the outcome to a lesser degree (as a peripheral condition). We propose:

Proposition 2b. Configurations in which the clan domain is complemented by the adhocracy domain are associated with low employee turnover.

On the other hand, it is also conceivable that configurations in which the clan domain is combined with hierarchical elements lead to low turnover. In a hierarchy culture, rules and processes provide orientation and reliability. Employees know what is expected from them and who is accountable for which kinds of tasks (Cameron & Quinn, 2006). When combined with the strong sense of cohesion and trust that prevails in clannish organizations, hierarchy-oriented organizations are thus likely to be seen as a safe and familiar workplace that employees are committed to. Gordon (1991), for example, observed that utilities, which are generally considered to be hierarchical organizations, also featured clannish characteristics, such as listening to the opinion of employees before making important decisions. According to Gordon, this combination resulted in strong loyalty. It can thus be assumed that configurations that combine hierarchical features with cultural features of a clannish organization are also associated with low turnover rates. Again, the clan domain is probably the “main” one (core) in such a configuration, while the hierarchy domain contributes to the outcome to a lesser degree (peripheral). We propose:

Proposition 2c. Configurations in which the clan domain is complemented by the hierarchy domain are associated with low employee turnover.

The market domain is likely to play an ambivalent role in this context. While it is possible that the achievement of ambitious goals, which is fostered by a market-oriented culture, drives employee satisfaction, it is also possible that aggressiveness and competition, which are also core elements of the market domain, erode trust and collaboration and thus have a negative impact on employee attitudes (Hartnell et al., 2011). We therefore propose:

Proposition 2d. In configurations associated with low employee turnover, the clan domain is complemented by the *presence* of market-oriented

elements in some cases and complemented by the *absence* of market-oriented elements in other cases.

Configurations leading to high sales performance. The CVF domain that is empirically most strongly related to financial effectiveness is the market domain (Hartnell et al., 2011). In their meta-analysis, Hartnell and colleagues could show that the market domain demonstrated the strongest relationship with five different criteria of financial effectiveness. The relationships were also significantly stronger compared to other culture domains. These findings are in line with CVF theory, which suggests that organizations with a market culture are results-oriented with a focus on profitability. In order to achieve this, they set ambitious goals to maintain a leading financial position in the marketplace (Cameron & Quinn, 2006). In sum, the cultural elements that constitute the market domain are, in comparison to the other three domains, most directly geared towards yielding strong financial results, which is why we propose:

Proposition 3a. Across all configurations associated with high sales performance, the market domain is the most important one. It is hence present as a core condition in most of these configurations.

Reasonable complements to market-oriented cultures could be adhocratic elements. In adhocratic cultures, scanning the external environment enables employees to identify new customer needs and develop cutting-edge products (Cameron & Quinn, 2006). In other words, adhocracy-oriented cultures are strongly focused on seizing new business opportunities. When combined with the typical features of a market-oriented culture, these opportunities can consequently be exploited, which should lead to strong financial results. In such a configuration, the market domain probably plays the key role (as a core condition) while the adhocracy domain contributes to the outcome to a lesser degree (as a peripheral condition). Hartnell et al. (2011) found in their meta-analysis that adhocracy had moderate relationships with various financial effectiveness criteria. This suggests that adhocracy does affect sales performance, but to a lesser degree, compared to the market domain. Hartnell and colleagues (2011) assume that adhocracy culture's association with financial effectiveness criteria might operate through mediating mechanisms and is thus more distal in comparison to the link between market and financial effectiveness. We propose:

Proposition 3b. Configurations in which the market domain is complemented by the adhocracy domain are associated with high sales performance.

However, it can also be assumed that a configuration which combines features of the market domain with hierarchical elements would lead to high financial performance. As noted above, a core assumption in hierarchical cultures is that stability and predictability foster efficiency. Combining these values with the typical features of a market-culture would mean that the aggressiveness, with which customers are targeted and profits are pursued, are backed by efficient processes, leading to consistently strong financial results. Again, the market domain is probably the “main” one (core) in such a configuration, while the hierarchy domain contributes to the outcome to a lesser degree (peripheral). We propose:

Proposition 3c. Configurations in which the market domain is complemented by the hierarchy domain are associated with high sales performance.

With regard to clan-oriented values, the high commitment, which is typical for clannish organizations is likely to lead to motivated employees, which, in turn, should be beneficial for achieving financial performance. On the other hand, due to their rather internal focus, clan cultures are less focused on customer needs and can be susceptible to group-think and inertia, which is supposedly obstructive for achieving ambitious sales goals (Hartnell et al., 2011). We propose:

Proposition 3d. In configurations associated with high sales performance, the market domain is complemented by the *presence* of clannish elements in some cases and complemented by the *absence* of clannish elements in other cases.

Sample 1

Method

Sample. Data collection took place in a German company offering financial services to business clients. All employees were asked to fill out an online survey which could be completed during company time. The final sample consisted of 1170 employees, which is equivalent to 77% of the company’s total workforce. The participating employees were grouped in 89 organizational units, which is equivalent to 100% of the organization’s units. Unit sizes

ranged from 5 to 41 employees, with an average of 12. Of the 89 units, 51 were sales units and 38 had internal tasks. Forty-two percent of the participants were female and the average age was 41 years.

Measures. *Organizational culture* within the units was assessed with the Organizational Culture Assessment Instrument (OCAI), which was developed by Cameron and Quinn (2006) to assess the dimensions of the Competing Values Framework. We applied a referent shift to the instrument in order to focus participants on the culture within their unit (Chan, 1998). Moreover, we developed and used a German version, following a translation-back translation procedure (Brislin, 1970). The questionnaire was part of a larger employee survey that the sponsoring organization conducted at that time. To not take up too much of the employees' time, the organization asked us to minimize the number of questions. To meet this desire, the instrument was slightly shortened and consisted of 16 (instead of 24) items that are distributed across four scales representing the CVF domains that were described above: clan (sample item: "The management style is characterized by teamwork, consensus, and participation."; Cronbach's alpha .86), adhocracy (sample item: "The glue that holds us together is commitment to innovation and development. There is an emphasis on being on the cutting edge."; Cronbach's alpha .87), market (sample item: "We emphasize competitive actions and achievement. Hitting stretch targets and winning in the marketplace are dominant."; Cronbach's alpha .79), and hierarchy (sample item: "This is a very controlled and structured place. Formal procedures generally govern what people do."; Cronbach's alpha .78). The items were answered on a 5-point Likert scale ranging from "strongly disagree" to "strongly agree." The individual scores for the CVF scales were aggregated to the unit level. ICC(1) and ICC(2) values as well as $R_{WG(J)}$ values were computed for the CVF scales and are displayed in Table 1. The figures indicate acceptable between-unit variability and within-unit agreement (LeBreton & Senter, 2008), and were thus considered high enough to justify aggregation. Acceptable between-unit variability moreover proves that the units were sufficiently distinct to develop individual cultures (Glisson & James, 2002).

Employee turnover data was provided by the sponsoring organization. It was operationalized per unit as the number of employees leaving in relation to the average headcount during the year prior to the study.

Sales performance figures were available for 51 out of 89 organizational units and were also provided by the sponsoring organization. More specifically, we used the degree to which predefined sales targets were met in the year prior to the study (in percentage). Sales targets were defined by the top management based on previous sales, the size of the sales units, as well as the

Table 1. Dimensions of Organizational Culture.

Dimension	Number of items	Sample item	Alpha sample 1/2	Average ICC(1) sample 1/2	Average ICC(2) sample 1/2	Average $R_{wg(j)}$ sample 1/2
Clan	4	The management style is characterized by teamwork, consensus, and participation.	.86/.86	.13/.12	.69/.68	.75/.78
Adhocracy	4	The glue that holds us together is commitment to innovation and development. There is an emphasis on being on the cutting edge.	.87/.80	.17/.08	.72/.63	.79/.82
Market	4	We emphasize competitive actions and achievement. Hitting stretch targets and winning in the marketplace are dominant.	.79/.81	.12/.12	.65/.63	.81/.80
Hierarchy	4	This is a very controlled and structured place. Formal procedures generally govern what people do.	.78/.80	.11/.11	.69/.59	.80/.77

size and the buying power of the market that these units target. Targets were hence independent of the units analyzed. The relative achievement measure therefore allows for comparisons across different sales units.

Analysis. Fuzzy set QCA proceeds in four steps.² As noted above, fsQCA focuses on analyzing the membership of cases in given sets of interest. In a first step, these sets need to be constructed through a process of calibration. We used the direct method of calibration that was recommended by Ragin (2008) and applied in most recent studies (e.g., Gupta et al., 2020; Misangyi & Acharya, 2014). Using this method, the researcher specifies for each variable three values that correspond to three qualitative thresholds (called break-points) that structure a fuzzy set: full membership, full nonmembership, and the crossover point, which indicates the point of maximum ambiguity regarding the assessment of whether a case is more in or out of a given set.

With regard to organizational culture within the units, we calibrated four sets that represented (1) a highly pronounced clan culture, (2) a highly pronounced adhocracy culture, (3) a highly pronounced market culture, and (4) a highly pronounced hierarchy culture. Lacking a definition or established knowledge of what constitutes “highly” pronounced CVF domains, we followed Greckhamer (2011) and Misangyi and Acharya (2014) and considered having a highly pronounced culture a relative quality measured against the overall culture of the organization. We thus anchored breakpoints as cross-organizational reference points and considered the top 10% of the organizational units with the highest scores on the respective CVF scales fully in of the set, assuming that in these units the values of the respective CVF domains were undoubtedly relatively strong. Conversely, the 10% of the units with the lowest scores were considered fully out of the set. The medians were set as cross-over points.³

With regard to effectiveness criteria, we used breakpoints that were informed by experts from the sponsoring organization. We met with specialists from organizational development, human resources, and management in group discussions in order to define reasonable values. The experts considered units with a turnover rate of 5% or less as having a definitely low turnover rate, while they considered units with a turnover rate of 15% or higher as having a clearly high turnover rate. Moreover, we calibrated a set for high sales performance, which was also based on evaluations from experts from the sponsoring organization. They considered the top 10% of the units as clearly high performing and the lowest 15% as clearly low performing. The medians were set as crossover points in both cases. All breakpoints used in this study are displayed in Table A in Appendix A.

In a second step, these set measures are used to construct a so-called truth table. Each row of the truth table represents specific configurations of variables. The table lists all possible configurations, regardless of whether they are actually represented in the data. The actual empirical cases are then matched to the rows of the table, with some rows containing many cases, some rows just

a few, and some rows containing no cases if there is no empirical case that features this particular configuration (Fiss, 2011).

Third, fsQCA investigates patterns by focusing on set-subset relationships. For example, to analyze which configurations lead to low employee turnover, it examines the cases that are members of the set of “low turnover” units and then identifies the configurations of variables of these cases associated with the outcome. For this purpose, the number of truth table rows is reduced based on the consistency threshold and the frequency threshold. Consistency should be as close to 1 as possible, which would mean that cases featuring the same configurations of variables are consistently associated with the outcome and thus enable inferences that a subset relationship actually exists (Greckhamer, 2011). The frequency threshold is defined based on the number of cases that are associated with the truth table’s rows. If there are rows with few cases, the evidence related to the configuration that these rows stand for is vague and might be considered insufficient. We set the threshold for the lowest acceptable consistency at 0.80 (Fiss, 2011; Misangyi & Acharya 2014). The frequency threshold was set at two, which is a recommended cutoff value for our sample sizes (Legewie, 2013; Ragin, 2008). Using this threshold, more than 80% of the cases assigned to configurations were captured.

Fourth, fsQCA identifies “causal recipes”—configurations of conditions that lead to the outcome and are generalizations of the patterns that exist in the data (Legewie, 2013).⁴ The current study uses the truth table algorithm described by Ragin (2008), which allows for identifying core and peripheral causes based on “easy” and “difficult” counterfactuals. Easy counterfactuals refer to situations in which a redundant causal condition is added to a set of conditions that by themselves already lead to the outcome in question. Difficult counterfactuals refer to situations in which a condition is removed from a set of conditions leading to an outcome, assuming that this condition is redundant. Distinguishing between easy and difficult counterfactuals yields a parsimonious solution (including all simplifying assumptions regardless of whether they are based on easy or difficult counterfactuals) and an intermediate solution (only including assumptions based on easy counterfactuals). Core conditions are those that are part of both parsimonious and intermediate solutions. They are considered to be more “decisive causal ingredients” because they remain part of the solution after the inclusion of all assumptions, based on both easy and difficult counterfactuals (Misangyi et al., 2017). Peripheral conditions are those that are eliminated in the parsimonious solution and thus only appear in the intermediate solution. Accordingly, this approach defines causal coreness in terms of the strength of the evidence relative to the outcome (Fiss, 2011).

Table 2. Sample 1: Descriptive Statistics and Correlations (N = 89)

Variable	M	SD	Correlation					
			1	2	3	4	5	6
Clan	3.46	0.51	—					
Adhocracy	3.73	0.37	.70**	—				
Market	3.40	0.52	.39**	.55**	—			
Hierarchy	3.49	0.38	.42**	.35**	.43**	—		
Employee turnover	8.42	5.57	−.46**	−.30**	−.17	−.28**	—	
Sales performance ^a	101.17	26.27	.31**	.39**	.46**	.04	−.08	—

* $p < .05$ ** $p < .01$.

^aData on sales performance was available for 51 organizational units.

Table 3. Sample 1: Cultural Configurations for Achieving Low Turnover and High Sales Performance.^a

Configuration	Low turnover				High sales performance	
	IA	IB	II	III	I	II
Clan	●	●	●		•	⊗
Adhocracy		•		●	●	
Market	⊗	⊗	•	•	●	●
Hierarchy	⊗		●	●		⊗
Consistency	0.81	0.83	0.85	0.83	0.81	0.77
Raw coverage	0.25	0.27	0.45	0.43	0.59	0.34
Unique coverage	0.03	0.01	0.04	0.02	0.38	0.13
Overall solution consistency			0.80			0.77
Overall solution coverage			0.58			0.71

^aBlack circles indicate the presence of a condition; crossed out circles indicate its absence. Large circles indicate core conditions; small circles indicate peripheral conditions. Blank spaces indicate that the particular causal condition is not relevant within that configuration. The presence (absence) of a condition means that the degree of set membership is over (below) the crossover point (i.e., membership higher than 0.5).

Results

Table 2 presents descriptive statistics and correlations for all measures. The table shows the expected moderate to strong correlations between the four CVF domains, between the clan domain and employee turnover (negative), and between the market domain and sales performance (positive). Moreover, the clan domain is positively correlated with sales performance, and the

adhocracy domain is correlated with both sales performance (positively) and turnover (negatively).

Table 3 shows the results of the fuzzy set analysis for low employee turnover and high sales performance. We use the notation recommended by Ragin (2008). According to this notation, black circles indicate the presence of a condition, and crossed out circles indicate its absence. Furthermore, large circles indicate core conditions, while small circles refer to peripheral conditions. Blank spaces indicate that the condition has no relevance for the outcome.

Employee turnover. With regard to low employee turnover, the fuzzy set analysis yields four configurations that exhibit acceptable consistency (≥ 0.80). This suggests a so-called first-order equifinality in line with Proposition 1a, which suggested that more than one configuration will be associated with low turnover. Moreover, Configuration IA and IB exhibit a so-called second-order equifinality, since identical core conditions are surrounded by different peripheral conditions (Fiss, 2011). Interestingly, the two peripheral conditions in Configuration IA and IB can be regarded as substitutes: Configuration IB indicates that when a strong clan focus is combined with the absence of market-related elements, the additional presence of adhocracy-related values leads to low turnover regardless of whether hierarchy-oriented values are present or not, while Configuration IA indicates that when hierarchy-oriented values are absent, it is irrelevant whether adhocracy-oriented elements are present or not.

In line with proposition 2a, clannish values are a core condition in three out of four configurations. In Configuration IB, the clan focus leads to low turnover when combined with adhocratic values (as a peripheral condition), which corresponds to proposition 2b. In Configuration II, the clan focus is complimented by hierarchy-oriented values (however, as a second core condition, and not, as suggested in Proposition 2c, as a peripheral condition). In line with proposition 2d, market-oriented values are absent (core condition) in Configuration IA and IB but present (peripheral condition) in Configuration II. Two findings, however, are inconsistent with our propositions. Firstly, configuration IA is linked to low turnover with neither the presence of hierarchy, nor adhocracy elements. Instead, the absence of both hierarchy and market elements joining the clan domain are associated to low turnover in Configuration IA. Secondly, both hierarchy and adhocracy are core conditions in Configuration III, with the presence of market elements as a peripheral condition, but without presence or absence requirements for the clan domain. This finding is surprising and will be illuminated in more detail in the discussion section.

Sales performance. Table 3 shows two configurations with acceptable consistency (≥ 0.77) leading to high sales performance, which, in line with Proposition 1b, suggests first-order equifinality. Both configurations contain two core conditions and one peripheral condition.

In line with Proposition 3a, market is a core condition in both configurations leading to high sales performance. In Configuration I, the market domain is complimented by adhocracy (as a second core condition, which corresponds only partially to Proposition 3b). In this configuration, the presence of clan values is a peripheral condition, while clannish values are absent in Configuration II, thus supporting Proposition 3d. However, in contrast to Proposition 3c, there is no configuration in which hierarchy complements the market domain. To the contrary, it is the absence of hierarchy that complements the market domain in Configuration II, a finding which will be further discussed below.

Discussion

The pattern of results is mostly consistent with our propositions. In line with the concept of equifinality, four configurations leading to low turnover and two configurations leading to high sales performance were discovered. Overall, the results indicate that only specific configurations of cultural elements lead to low employee turnover and high sales performance. These configurations reflect the presence and/or absence of these elements and also show to which degree (core or peripheral?) these elements should be present/absent, which underpins the importance of understanding organizational culture as configurations of different, even seemingly contradictory culture domains.

Across all configurations leading to low turnover, the clan domain was a core condition in three out of four configurations, and the market domain was a core condition in two out of two configurations leading to high sales performance. While these results are not surprising given the existing empirical evidence (e.g., Hartnell et al., 2011; Sackmann, 2011; Schneider et al., 2013), configurations that combine those core domains with complementing, partially even seemingly contradictory cultural elements are particularly interesting. As proposed, the clan domain (as a core condition) combined with either adhocratic or hierarchy-oriented values leads to low turnover. If the presence of adhocracy compliments clan as a peripheral condition, such as in Configuration IB (or hierarchy is absent, such as in Configuration IA), it is important that market-oriented values are *absent* to a strong degree (core element). On the other hand, if, next to clan, hierarchy is present to a strong degree, such as in Configuration II, the additional *presence* of market-related

values seems to be beneficial (at least to some degree, as it is a peripheral condition). The reason for these results could lie in the orientation-providing role of the hierarchy domain. One of the central functions of organizational culture is to provide security by defining what actions to take in various kinds of situations (Ostroff et al., 2013; Schein, 2010). This kind of guidance is particularly strongly reflected in the hierarchy domain with its focus on routines and processes. Thus, market might complement the hierarchy domain positively because in such a constellation, employees do not only have ambitious goals (market), but also know exactly what is expected from them to reach these (hierarchy). However, if hierarchical elements are absent and adhocratic elements (which emphasize freedom instead of rigid processes) prevail, it might be more beneficial for achieving low turnover if the challenging goals that are characteristic of the market domain are absent in order to not create pressure that employees do not know exactly how to cope with.

A surprising finding regarding low turnover was Configuration III, which combines both adhocratic and hierarchical values as core elements. While the latter two elements seem to be difficult to reconcile, there is some research (e.g., Chatman, Caldwell, O'Reilly, & Doerr, 2014; Kotrba et al., 2012) which suggests that these two facets can positively complement each other. In line with these studies, it might be conceivable that stable routines facilitate trust in employees to innovate and adapt within appropriate boundaries, which, in turn, can positively influence employee commitment and satisfaction, thus leading to low turnover.

With regard to sales performance, it is obviously beneficial if a strong market focus is complimented with a strong focus on adhocracy or at least the absence of hierarchy, as both configurations leading to high sales performance suggest. Contrary to what we assumed, there is no configuration that combines market- and hierarchy-oriented values and leads to strong sales performance. The reason for this could lie in the nature of the business of the sponsoring organization. As a financial services provider for business clients, the business is complex, the demands of the clients are constantly changing, and no two deals are the same, which requires flexibility and a certain risk disposition to be successful (Head of Human Resources, personal communication, March 7, 2016). These success factors are clearly associated with the adhocracy domain, while the presence of the hierarchy domain could create some barriers in this regard.

Since we studied a single organization in a single industry, these findings should be interpreted with caution. To address this issue, we conducted a second analysis using a sample from a different organization in a different industry in order to provide a constructive replication of the results.

Sample 2

Method

Sample. Data collection took place in a German organization operating in the fashion industry. Again, all employees were asked to participate. The final sample consisted of 998 employees, of which 635 (64%) completed an online survey and 363 (36%) completed an identical paper-based version. Participants were grouped in 49 organizational units, which is equivalent to 100% of the organization's units. Unit sizes ranged from 5 to 60 employees, with an average of 17. Of the 49 units, 24 were sales units and 25 had internal tasks. Sixty-one percent of the participants were female and the average age was 38 years.

Measures and analysis. *Organizational culture* within the unit was—as for sample 1—assessed with the OCAI, with all scales showing satisfying reliabilities. Again, ICC(1) values, ICC(2) values, and $R_{WG(J)}$ values suggest that aggregating the individual CVF scores to the group level was justified (see Table 1 for details). The setting of breakpoints for calibrating the four CVF scales followed the same line of reasoning as described above for sample 1.

Employee turnover and sales performance data were provided by the sponsoring organization and were operationalized as in sample 1. Sales data was available for 24 out of 49 units. Again, breakpoints were informed by discussions with experts from the sponsoring organization in a manner very similar to sample 1. With regard to employee turnover, the experts considered units with a turnover rate below 5% as having a definitely low turnover rate, while they considered units with a turnover rate of 20% or higher as having a clearly high turnover rate. With regard to financial performance, they considered the top three units (12,5%) as clearly high performing and the three weakest units (12,5%) as clearly low performing. The medians were set as cross-over points for both sets.

The analysis followed the same steps as described above for sample 1, with one exception: as the sample that was used to investigate financial performance was rather small ($N = 24$), the frequency threshold was reduced to one (Legewie, 2013; Ragin, 2008). Again, using these thresholds ensured that more than 80% of the cases assigned to configurations were captured.

Results

Table 4 presents descriptive statistics and correlations for all measures. In general, the results showed considerable similarities to those from sample 1. Again, there are moderate to strong correlations between the four CVF domains. Moreover, there is a significant positive correlation between the market domain and sales performance and moderate, but non-significant correlations

Table 4. Sample 2: Descriptive Statistics and Correlations (N = 49)

Variable	M	SD	Correlation					
			I	2	3	4	5	6
Clan	3.50	0.49	—					
Adhocracy	3.55	0.47	.41**	—				
Market	3.41	0.41	.49**	.29*	—			
Hierarchy	3.51	0.37	.58**	.15	.28	—		
Employee turnover	9.66	7.51	−.26	−.17	.07	−.25	—	
Sales performance ^a	105.88	20.22	.10	.25	.49*	.40	.07	—

^aData on sales performance was available for 24 organizational units* $p < .05$ ** $p < .01$.

Table 5. Sample 2: Cultural Configurations for Achieving Low Turnover and High Sales Performance^a.

Configuration	Low turnover			High sales performance		
	IA	IB	II	I	II	III
Clan		•	●	•	⊗	●
Adhocracy	⊗		•		⊗	⊗
Market	⊗	⊗	•	●	●	
Hierarchy	●	●	⊗	●		•
Consistency	0.84	0.90	0.82	0.82	0.88	0.82
Raw coverage	0.33	0.34	0.28	0.48	0.28	0.29
Unique coverage	0.09	0.07	0.12	0.22	0.08	0.02
Overall solution consistency		0.83			0.82	
Overall solution coverage		0.56			0.60	

^aBlack circles indicate the presence of a condition; crossed out circles indicate its absence. Large circles indicate core conditions; small circles indicate peripheral conditions. Blank spaces indicate that the particular causal condition is not relevant within that configuration. The presence (absence) of a condition means that the degree of set membership is over (below) the crossover point (i.e., membership higher than 0.5).

between adhocracy and sales performance (positive), clan and employee turnover (negative), and hierarchy and sales performance (positive) and turnover (negative).

Employee turnover. Table 5 shows three configurations that lead to low turnover and exhibit acceptable consistency (≥ 0.83). In line with Proposition 1a, first-order equifinality can be assumed across the three configurations, while Configuration IA and IB exhibit second-order equifinality (identical

core conditions are surrounded by different peripheral conditions). Again, the two peripheral conditions in Configuration IA and IB can be regarded as substitutes: Configuration IB indicates that when a strong focus on the hierarchy domain is combined with the absence of market-related cultural values, the additional presence of clannish values leads to low turnover regardless of whether adhocracy-oriented values are present or not, while Configuration IA indicates that when adhocratic values are absent, it is irrelevant whether clannish values are present or not.

Clan is a core or peripheral condition in two out of three configurations and the only condition that only leads to low turnover when it is present, a finding that is partially in line with Proposition 2a (which assumed that clan is a core condition in most configurations). In Configuration II, the clan domain, being present to a strong degree, is combined with the presence of adhocratic values as a peripheral condition, meaning that adhocracy is important, too, but to a lesser degree (as proposed in Proposition 2b). In Configuration IB, the clan domain is combined with the presence of hierarchy-oriented values (as proposed in Proposition 2c, although clan and hierarchy “switched places,” that is, clan is the peripheral condition and hierarchy is the core condition in this configuration). The market domain (in line with Proposition 2d) is present in one configuration (II), but absent in the other one (IB). Finally, Configuration Ia, which features a strong focus on hierarchy (core condition) with the absence of both market-oriented values (core condition) and adhocratic values (peripheral condition) does not correspond to any of our propositions.

Sales performance. As can be seen in [Table 5](#), the analysis yielded three configurations with acceptable consistency (≥ 0.82) leading to high sales performance. These results correspond to Proposition 1b. Market is a core condition in two out of three configurations (in line with Proposition 3a) and the market domain is combined with hierarchy as a second core condition in Configuration I, which partially corresponds to Proposition 3c. Clannish values are absent in Configuration II but present in Configuration I (peripheral condition) and III (core condition), a finding that is in line with Proposition 3d. However, in contrast to Proposition 3b, there is no configuration in which adhocracy combined with the market domain leads to high sales performance. Configuration III seems to reflect an alternative path to achieving high sales performance, which includes the presence of clannish values and the absence of adhocratic values (both as core conditions) in combination with a peripheral focus on hierarchy. In this configuration, market-related elements are irrelevant.

Discussion

The results obtained from sample 2 were similar to those obtained from sample 1. Again, there were different configurations consisting of multiple conditions that led to low turnover and high sales performance. Clan was the most important domain with regards to low turnover, while market was the most important domain with regard to sales performance. In the configurations leading to low turnover, the clan domain was again complimented by either adhocratic (Configuration II) or hierarchy-oriented values (Configuration IB), and market-related values could be either present or absent in these configurations. Interestingly, while clannish and adhocratic values combined with the *absence* of market-related values led to low turnover in sample 1, it was the *presence* of market-related values in combination with clannish and adhocratic elements that led to low turnover in sample 2. Conversely, clannish and hierarchy-oriented values combined with the *presence* of market-related values led to low turnover in sample 1, while it was the *absence* of market-related values combined with clannish and hierarchy-oriented values that led to low turnover in sample 2. A possible reason for this result could be the fact that in organization 2 (unlike in organization 1), hierarchy is an important element for driving financial performance (see below). Combined with a market-focus, hierarchical elements could therefore create strong pressure to perform among employees, while adhocratic elements might provide a possibility to emancipate oneself from too rigid, highly performance-driven structures, thus leading to higher satisfaction and low turnover. We will deepen this line of thought in the general discussion.

Finally, and in contrast to sample 1, it was the combination of market-oriented and hierarchy-oriented values (with clannish values as peripheral conditions) that showed the strongest paths to high sales performance, while adhocratic values seemed to be a hindrance in this regard. Again, the reason for this result could lie in the nature of the business of the sponsoring organization. As a fashion retailer operating in the low-price segment, the processes in the sales branches must be handled efficiently and with the lowest possible staff level (Head of Organizational Development, personal communication, May 12, 2016). An emphasis on hierarchy-oriented cultural elements could be very helpful in this regard. At the same time, prices, products, and even the way the products are displayed in the shops are standardized, and most customers require little or no advice (Head of Organizational Development, personal communication, May 12, 2016), which is why creative leeway is not necessary and adhocratic elements are probably not that important or even obstructive for achieving high sales performance.

General Discussion

Applying a set-theoretic perspective, we analyzed cultural configurations and their links to organizational effectiveness in two organizations. Our findings suggest that, in line with the notion of equifinality, different configurations proved equally effective in leading to low employee turnover and high sales performance. Further, across both samples, the clan domain appeared to be most important for achieving low turnover rates, while the market domain appeared to be most important for sales performance. With regard to the more specific configurations leading to these outcomes, the results from both studies showed considerable similarities. In the following, these findings are discussed with regard to the study's theoretical and practical implications as well as strengths, limitations, and future research directions.

Theoretical Implications

This study proposes an alternative approach for investigating organizational culture that shifts the focus toward cultural configurations. We used fsQCA to better understand which elements of a configuration are relevant for an outcome and how these elements combine to achieve specific effects. This study thus represents an important step towards assessing organizational culture in a way that is closely aligned with the theoretical roots of the construct, as it depicts culture as a complex entity which consists of multiple facets that mutually influence each other. This perspective is strongly emphasized in seminal descriptions of the construct (e.g., [Denison, 1996](#); [Martin, 2002](#); [Pettigrew, 1979](#); [Schein, 1985](#); [Smircich, 1983](#)), but has been widely neglected in empirical research ([Ostroff & Schulte, 2014](#)).

Furthermore, the study illuminates the interplay of the CVF domains in unprecedented detail, thus shedding new light on one of the most frequently applied theories of organizational culture. Our study supports critical voices (e.g., [Ashkanasy, Broadfoot, & Falkus, 2000](#); [Denison, Nieminen, & Kotrba, 2014](#); [Hartnell et al., 2011](#)) regarding the proposed internal structure of the CVF. Results indicate that the CVF domains are neither “competing,” nor is it desirable to create a culture in which all domains are strongly pronounced, as some other studies proposed (e.g., [Carlos Pinho, Paula Rodrigues, & Dibb, 2014](#); [Gregory et al., 2009](#)). Instead, results suggest that the CVF domains complement each other in a differentiated manner, that the way they complement each other differs depending on the kind of effectiveness criterion that is investigated, and that there are different kinds of complimentary configurations that are equally effective in leading to the same outcome (equifinality).

With respect to the specific configurations leading to low turnover and high sales performance, there were considerable similarities across both samples. In both cases, the clan domain was most relevant regarding low turnover, and the market domain was most relevant regarding sales performance. Within the same organizational unit, these domains could be combined with different other cultural elements (e.g., adhocratic or hierarchy-oriented values) for achieving these outcomes. For example, in the configurations linked to low turnover in sample 1, adhocracy played a very important role (core condition) when hierarchy was also present to a strong degree and market to a somewhat lesser degree (Configuration III). A lesser degree of adhocracy was sufficient when the clan domain was strongly pronounced and market was absent to a strong degree (Configuration Ib). In Configuration II, however, it was irrelevant whether adhocracy was present or absent (and to which degree) as long as the clan and hierarchy domains were present to a strong degree and complimented by a lesser degree of market-related elements. This example illustrates the ability of fsQCA to explain how the role that a cultural element plays within a given configuration is dependent on the presence/absence (and the degrees of this presence/absence) of other elements within this configuration.

The findings furthermore suggest both intra-organizational equifinality even on unit level (several configurations within the same organization lead to the same outcome) and so-called causal asymmetry, meaning that a variable that is causally related in one configuration may be unrelated or even inversely related in another (Fiss, 2011). Thus, the findings support theories regarding intra-organizational “cultural ambidexterity” (e.g., Moon, Quigley, & Marr, 2012; Wang & Rafiq, 2014). Building on the general theory of organizational ambidexterity (e.g., Gupta et al., 2006; Tushman & O'Reilly, 1996), these theories suggest that organizational cultures can be ambidextrous, meaning that within organizations, there are some subunits that need subcultures geared towards exploration (i.e., the cultural values foster adaptability and innovation) in order to be successful, while others require very different subcultures, for example, geared towards exploitation (i.e., cultural values foster stability and efficiency). Our study suggests that ambidexterity even applies within units of larger organizations. Overall, these different cultural orientations can complement each other and enhance organizational effectiveness on unit and organizational level, if they are properly aligned with the organizational goals (Ostroff et al., 2013).

Moreover, findings reinvigorate the idea that culture should be studied by applying a resource-based view, a perspective which is frequently drawn on for theoretically explaining the relationship between organizational culture and organizational success (Schneider et al., 2013). The resource-based view

assumes that culture leads to competitive advantage if it is valuable, rare, and imperfectly imitable (Barney, 1986). However, if effectiveness is dependent on single culture dimensions, it is hard to imagine how organizations can rely on culture as a competitive advantage, since individual cultural elements are most likely neither rare nor difficult to imitate. From a configurational perspective, however, the assumptions of the resource-based view seem much more applicable. Complex configurations defined by the presence and absence of specific cultural elements (and the degree to which they are present/absent) are much more likely to be rare (i.e., they are not to be found ubiquitously in all kinds of organization) and difficult to imitate. This is probably even more the case when different “ambidextrous” subcultures exist in parallel, which are associated with different kinds of effectiveness outcomes and thus collectively contribute to the overall organizational success.

Practical Implications

Our results bear some relevance for practitioners intending to shape their organization’s culture. Our study clearly supports the notion that organizational culture has multiple facets that mutually influence each other, which is why it is probably unreasonable to change specific culture dimensions in isolation. Instead, more complex cultural configurations need to be taken into account in any change effort. Further, organizations operate in multiple performance domains and are rarely effective in all of them (Cameron & Quinn, 2006). Thus, interventions aiming at optimizing organizational culture need to have a clear understanding of the desired outcomes of such an optimization, since our results suggest that different cultural configurations are related to different effectiveness criteria. This presents an interesting challenge for practitioners, who need to prioritize the most important organizational goals and make sure that cultural configurations are properly aligned with these goals.

Moreover, our results imply that, in line with the idea of equifinality, practitioners should be aware that there is probably more than one possible way to achieve this kind of alignment. Equifinal culture configurations offer the possibility to explore several viable strategic alternatives. Also, the trajectories of subsequent organizational development measures and dependencies between culture dimensions become more transparent and may facilitate trade-off decisions (Fiss, 2011). In this context, knowledge about culture configurations might allow practitioners to build robustness and redundancy into organizational designs. If there is more than one configuration associated with a given effectiveness criterion, then knowledge about different paths to the outcome could be used to construct a superior configuration that may be more robust, for example, to environmental changes (Fiss, 2007). Furthermore, as our findings suggest, the

degree to which a culture dimension is present (core or peripheral) plays an important role, so it is probably not necessary to strengthen all relevant culture dimensions in the same way. Instead, some dimensions could be developed strongly, others could be developed to a lesser degree, and for some dimensions, it is not the presence but the absence that is important. For these dimensions, practitioners should not think about how to develop but how to avoid them.

Strengths, Limitations, and Future Research

Apart from introducing new theoretical and methodological aspects to the field of organizational culture, it is a central strength of our study that we investigated culture by surveying all organizational members (in both samples). This is the most difficult but also the most effective and representative method in assessing organizational culture (Gregory et al., 2009) and sets this study apart from other studies which mostly rely on key informants (usually from the upper management levels). A second strength is that we obtained objective criteria of organizational effectiveness, thus avoiding issues related to common method bias. Third, investigating a second sample enabled us to check for the robustness of the results in a different organization that operates in a different industry and enabled direct comparisons between the findings.

However, the concentration on two organizations is also a major limitation. Research has suggested that both organizational cultures (Adkins & Caldwell, 2004) and the effectiveness of organizational configurations (Ketchen et al., 1997) are industry-specific. Our findings should hence be validated in other industry settings. While this moreover poses the question for further external conditions influencing the composition of culture configurations and their link to effectiveness, it must be noted that fsQCA is not capable of accounting for control variables in the same manner as known from conventional, regression-based approaches (Greckhamer, Misangyi, & Fiss, 2013). Instead, following the set-theoretic approach, external conditions can be approached by separating different samples with different conditions as we have done in this study. The focus on unit-level subcultures within two organizations allowed us to rule out external conditions affecting the entire organizations. Nevertheless, the lack of comparison to other organizations under similar conditions obviously remains the major limitation of this study.

A second limitation is the fact that we focused on only four possible conditions (i.e., the domains of the CVF) and two outcome variables. Although this design was well-suited for fulfilling the main purpose of this study, which was to assess the effectiveness of configurations of the most frequently investigated cultural domains, future research could extend this approach to other variables. For example, it could be interesting to include less frequently investigated culture variables in the configurational analysis, such as ethical

culture (e.g., Zhang, Chiu, & Wei, 2009) or error culture (e.g., van Dyck, Frese, Baer, & Sonnentag, 2005).

A possible third limitation is the fact that the sales units in sample 1 were not completely comparable in terms of the services they offer, which could have had an impact on variation in sales performance. We addressed this issue by using the degree to which predefined sales targets, defined by management, were met in the year prior to the study (in percentage). This relative measure allows, in our opinion, for reasonable comparisons across different sales units, but we still cannot rule out that a lack of comparability might have affected the results.

Finally, we only investigated one specific level of low turnover and high sales performance as outcome variables. However, it is one of the strengths of set-theoretic methods that they also allow for investigating how different configurations are associated with different levels of the same outcome. For example, it might be possible that configurations that are associated with high turnover or low performance are not just the “opposites” of those related to low turnover or high performance (the variables we investigated). Also, it might be possible that configurations associated with low turnover (high performance) are quite different from configurations that are related to very low turnover (very high performance). A stronger focus on these cases of “causal asymmetry” could be a very promising avenue for future research.

Appendix A

Table A. Breakpoints for Calibrating Fuzzy Sets.

Set	Lower limit	Cross-over point	Upper limit
Sample 1			
High clan culture	2.89	3.57	4.10
High adhocracy culture	2.79	3.48	3.99
High market culture	3.27	3.76	4.13
High hierarchy culture	3.00	3.54	3.98
Low employee turnover	15%	8%	5%
High sales performance	76%	101%	135%
Sample 2			
High clan culture	2.80	3.56	4.08
High adhocracy culture	2.80	3.47	3.93
High market culture	2.96	3.53	4.14
High hierarchy culture	3.07	3.52	3.96
Low employee turnover	20%	9%	5%
High sales performance	78%	103%	129%

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Notes

1. Organizational culture has always been studied on different organizational levels. Subcultures (i.e., values and beliefs shared within an organizational unit) might influence the behavior of the respective members and hence outcomes on unit level as corporate organizational culture does on corporate level (Hartnell, Ou, & Kinicki, 2011; Alvesson, 2013). The organizational units examined in this study had a dedicated leader and were situated in a coherent workplace, so that key prerequisites for the development of subcultures were met (Glisson & James, 2002; Martin, 2002).
2. It is beyond the scope of this paper to explain the principles, advantages, and disadvantages of fsQCA in full detail. The interested reader is referred, for example, to Fiss (2007; 2011), Ragin (2008), or Legewie (2013).
3. We conducted sensitivity analyses to examine whether the findings reported below are robust to the use of alternative calibrations. Specifically, we varied the crossover points by lowering them from the fifth percentile (median) to the fourth percentile and raising them to the sixth percentile. Minor changes in the results were observed, but the interpretation of the results remained largely unchanged.
4. fsQCA terminology, which we follow here, commonly invokes causation and causality. However, it should be noted that, just like other methodological approaches, fsQCA does not “prove” causal relations. Rather, it reveals patterns of associations across sets of cases, thereby providing support for the existence of such causal relations. Whether it makes sense to interpret associations as causal relations depends on existing empirical and theoretical knowledge of the phenomenon under investigation (Greckhamer, 2011; Legewie, 2013).

References

- Adkins, B., & Caldwell, D. (2004). Firm or subgroup culture: Where does fitting in matter most? *Journal of Organizational Behavior*, 25, (8), 969–978. doi:<https://doi.org/10.1002/job.291>
- Alvesson, M. (2013). *Understanding organizational culture* (2nd ed.). Los Angeles, CA: Sage.

- Ashkanasy, N. M., Broadfoot, L., & Falkus, S. (2000). Questionnaire measures of organizational culture. In N. M. Ashkanasy, C. P. Wilderom, & M. F. Peterson (eds), *Handbook of organizational culture and climate* (1st ed., pp. 131–162). Thousand Oaks, CA: Sage.
- Barney, J. B. (1986). Organizational culture: Can it be a source of sustained competitive advantage? *Academy of Management Review*, 11(3), 656–665. <https://doi.org/10.5465/AMR.1986.4306261>
- Brazil, K., Wakefield, D. B., Cloutier, M. M., Tennen, H., & Hall, C. B. (2010). Organizational culture predicts job satisfaction and perceived clinical effectiveness in pediatric primary care practices. *Health Care Management Review*, 35(4), 365–371. <https://doi.org/10.1097/HMR.0b013e3181edd957>
- Brislin, R. W. (1970). Back-translation for cross-cultural research. *Journal of Cross-Cultural Psychology*, 1(3), 185–216. <https://doi.org/10.1177/135910457000100301>
- Cameron, K. S., & Quinn, R. E. (2006). *Diagnosing and changing organizational culture based on the competing values framework*. Hoboken, NJ: John Wiley and Sons.
- Carlos Pinho, J., Paula Rodrigues, A., & Dibb, S. (2014). The role of corporate culture, market orientation and organisational commitment in organisational performance: The case of non-profit organisations. *Journal of Management Development*, 33(4), 374–398. doi:<https://doi.org/10.1108/JMD-03-2013-0036>
- Chan, D. (1998). Functional relations among constructs in the same content domain at different levels of analysis: A typology of composition models. *Journal of Applied Psychology*, 83(2), 234–246. doi:<https://doi.org/10.1037/0021-9010.83.2.234>
- Chatman, J. A., Caldwell, D. F., O'Reilly, C. A., & Doerr, B. (2014). Parsing organizational culture: How the norm for adaptability influences the relationship between culture consensus and financial performance in high-technology firms. *Journal of Organizational Behavior*, 35(6), 785–808. doi:<https://doi.org/10.1002/job.1928>
- Crozier, M. (1964). *The bureaucratic phenomenon*. Chicago: University of Chicago Press.
- Dalton, M. (1959). *Men who manage*. New York: Wiley.
- Delery, J. E., & Doty, D. H. (1996). Modes of theorizing in strategic human resource management: Tests of universalistic, contingency, and configurational performance predictions. *Academy of Management Journal*, 39(4), 802–835. <https://doi.org/10.2307/256713>
- Denison, D. R. (1996). What is the difference between organizational culture and organizational climate? A native's point of view on a decade of paradigm wars. *Academy of Management Review*, 21(3), 619–654. <https://doi.org/10.5465/AMR.1996.9702100310>
- Denison, D. R., Haaland, S., & Goelzer, P. (2004). Corporate culture and organizational effectiveness: Is Asia different from the rest of the world? *Organizational Dynamics*, 33(1), 98–109. <https://doi.org/10.1016/j.orgdyn.2003.11.008>
- Denison, D. R., & Mishra, A. K. (1995). Toward a theory of organizational culture and effectiveness. *Organization Science*, 6(2), 204–223. <https://doi.org/10.1287/orsc.6.2.204>

- Denison, D., Nieminen, L., & Kotrba, L. (2014). Diagnosing organizational cultures: A conceptual and empirical review of culture effectiveness surveys. *European Journal of Work and Organizational Psychology*, 23(1), 145–161. <https://doi.org/10.1080/1359432X.2012.713173>
- Detert, J. R., Schroeder, R. G., & Mauriel, J. J. (2000). A framework for linking culture and improvement initiatives in organizations. *Academy of Management Review*, 25(4), 850–863. <https://doi.org/10.5465/AMR.2000.3707740>
- Fiss, P. C. (2007). A set-theoretic approach to organizational configurations. *Academy of Management Review*, 32(4), 1180–1198. <https://doi.org/10.5465/AMR.2007.26586092>
- 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. <https://doi.org/10.5465/AMJ.2011.60263120>
- Glisson, C., & James, L. R. (2002). The cross-level effects of culture and climate in human service teams. *Journal of Organizational Behavior*, 23(6), 767–794. <https://doi.org/10.1002/job.162>
- Gordon, G. G. (1991). Industry determinants of organizational culture. *Academy of Management Review*, 16(2), 396–415. <https://doi.org/10.5465/AMR.1991.4278959>
- Greckhamer, T. (2011). Cross-cultural differences in compensation level and inequality across occupations: A set-theoretic analysis. *Organization Studies*, 32(1), 85–115. <https://doi.org/10.1177/0170840610380806>
- Greckhamer, T., Misangyi, V. F., & Fiss, P. C. (2013). The two QCAs: From a small-N to a large-N set theoretic approach. In P. C. Fiss, B. Cambré, & A. Marx (eds), *Research in the Sociology of Organizations: Vol. 38. Configurational theory and methods in organizational research* (pp. 49–75). Bingley, United Kingdom: Emerald.
- 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. <https://doi.org/10.1016/j.jbusres.2008.05.021>
- Gupta, K., Crilly, D., & Greckhamer, T. (2020). Stakeholder engagement strategies, national institutions, and firm performance: A configurational perspective. *Strategic Management Journal*, 41(10), 1869–1900. <https://doi.org/10.1002/smj.3204>
- Gupta, A. K., Smith, K. G., & Shalley, C. E. (2006). The interplay between exploration and exploitation. *Academy of Management Journal*, 49(4), 693–706. <https://doi.org/10.5465/AMJ.2006.22083026>
- Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance*, 16(2), 250–279. [https://doi.org/10.1016/0030-5073\(76\)90016-7](https://doi.org/10.1016/0030-5073(76)90016-7)
- 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. *The Journal of Applied Psychology*, 96(4), 677–694. <https://doi.org/10.1037/a0021987>

- 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. *The Journal of Applied Psychology*, 104(6), 832–850. <https://doi.org/10.1037/apl0000380>
- Humphrey, S. E., Nahrgang, J. D., & Morgeson, F. P. (2007). Integrating motivational, social, and contextual work design features: A meta-analytic summary and theoretical extension of the work design literature. *The Journal of Applied Psychology*, 92(5), 1332–1356. <https://doi.org/10.1037/0021-9010.92.5.1332>
- Joseph, O. O., & Kibera, F. (2019). *Organizational culture and performance: Evidence from microfinance institutions in Kenya*. SAGE Open, 9, 1–11. <https://doi.org/10.1177/2158244019835934>
- Ketchen Jr, D. J., Combs, J. G., Russell, C. J., Shook, C., Dean, M. A., Runge, J., Lohrke, F. T., Naumann, S. E., Haptonstahl, D. E., Baker, R., Beckstein, B. A., Handler, C., Honig, H., Lamoureux, S., & Beckstein, B. A. (1997). Organizational configurations and performance: A meta-analysis. *Academy of Management Journal*, 40(1), 223–240. <https://doi.org/10.2307/257028>
- Kotrba, L. M., Gillespie, M. A., Schmidt, A. M., Smerek, R. E., Ritchie, S. A., & Denison, D. R. (2012). Do consistent corporate cultures have better business performance? Exploring the interaction effects. *Human Relations*, 65(2), 241–262. <https://doi.org/10.1177/0018726711426352>
- LeBreton, J. M., & Senter, J. L. (2008). Answers to 20 questions about interrater reliability and interrater agreement. *Organizational Research Methods*, 11(4), 815–852. <https://doi.org/10.1177/1094428106296642>
- Legewie, N. (2013). An introduction to applied data analysis with qualitative comparative analysis In: *Forum Qualitative Sozialforschung G/Forum: Qualitative Social Research* (Vol. 14, No. 3).
- Lim, B. (1995). Examining the organizational culture and organizational performance link. *Leadership and Organization Development Journal*, 16(5), 16–21. <https://doi.org/10.1108/01437739510088491>
- Lund, D. B. (2003). Organizational culture and job satisfaction. *Journal of Business and Industrial Marketing*, 18(3), 219–236. <https://doi.org/10.1108/0885862031047313>
- Martin, J. (2002). *Organizational culture: Mapping the terrain*. Thousand Oaks, CA: Sage Publications.
- Miles, R. E., Snow, C. C., Meyer, A. D., & Coleman, H. J. (1978). Organizational strategy, structure, and process. *Academy of Management Review*, 3, 546–562. <https://doi.org/10.5465/AMR.1978.4305755>
- Mintzberg, H. 1979. *The structuring of organizations: A synthesis of research*. Englewood Cliffs, NJ: Prentice-Hall.
- 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. <https://doi.org/10.5465/amj.2012.0728>

- Misangyi, V. F., Greckhamer, T., Furnari, S., Fiss, P. C., Crilly, D., & Aguilera, R. (2017). Embracing Causal Complexity: The emergence of a neo-configurational perspective. *Journal of Management*, 43(1), 255–282. <https://doi.org/10.1177/0149206316679252>
- Moon, H., Quigley, N. R., & Marr, J. C. (2012). How interpersonal motives explain the influence of organizational culture on organizational productivity, creativity, and adaptation: The ambidextrous interpersonal motives (AIM) model of organizational culture. *Organizational Psychology Review*, 2, 109–128. <https://doi.org/10.1177/2041386611433085>
- Naqshbandi, M. M., Kaur, S., & Ma, P. (2015). What organizational culture types enable and retard open innovation? *Quality and Quantity*, 49(5), 2123–2144. <https://doi.org/10.1007/s11135-014-0097-5>
- Nishii, L. H., & Mayer, D. M. (2009). Do inclusive leaders help to reduce turnover in diverse groups? The moderating role of leader–member exchange in the diversity to turnover relationship. *The Journal of Applied Psychology*, 94(6), 1412–1426. <https://doi.org/10.1037/a0017190>
- Ostroff, C., Kinicki, A. J., & Muhammad, R. S. (2013). Organizational culture and climate. In N. W. Schmitt, S. Highhouse, & I. B. Weiner (eds), *Handbook of psychology: Industrial and organizational psychology* (Vol. 12, 2nd ed., pp. 643–676). Hoboken, NJ: John Wiley and Sons.
- Ostroff, C., & Schulte, M. (2014). A configural approach to the study of organizational culture and climate. In B. Schneider & K. M. Barbera (eds), *The Oxford handbook of organizational climate and culture* (pp. 532–552). New York, NY: Oxford University Press.
- Pandey, S. K., & Moynihan, D. P. (2006). Bureaucratic red tape and organizational performance: testing the moderating role of culture and political support. In G. A. Boyne, K. J. Meier, L. J. O'Toole, & R. M. Walker (eds), *Public service performance* (pp. 130–151). Cambridge, England: Cambridge University Press.
- Pappas, I. O. (2018). User experience in personalized online shopping: a fuzzy-set analysis. *European Journal of Marketing*, 52(7/8), 1679–1703. <https://doi.org/10.1108/EJM-10-2017-0707>
- Park, Y., El Sawy, O. A., & Fiss, P. C. (2017). The role of business intelligence and communication technologies in organizational agility: A configurational approach. *Journal of the Association for Information Systems*, 18(9), 648–686. <https://doi.org/10.17705/1jais.00467>
- Payne, G. T. (2006). Examining configurations and firm performance in a suboptimal equifinality context. *Organization Science*, 17(6), 756–770. <https://doi.org/10.1287/orsc.1060.0203>
- Pettigrew, A. M. (1979). On studying organizational cultures. *Administrative Science Quarterly*, 24(4), 570–581. <https://doi.org/10.2307/2392363>
- Porter, M. 1980. *Competitive strategy*. New York: Free Press.

- 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. <https://doi.org/10.1287/mnsc.29.3.363>
- Ragin, C. C. (2008). *Redesigning social inquiry: Fuzzy sets and beyond*. Chicago: University of Chicago Press.
- Sackmann, S. A. (2011). Culture and performance. In N. Ashkanasy, C. Wilderom, & M. Peterson (eds), *The handbook of organizational culture and climate* (2nd ed., pp. 188–224). Thousand Oaks, CA: Sage.
- Schein, E. H. (1985). *Organizational culture and leadership*. San Francisco: Jossey-Bass.
- Schein, E. H. (2010). *Organizational culture and leadership* (4th ed.). San Francisco: Jossey-Bass.
- Schneider, B., Ehrhart, M. G., & Macey, W. H. (2013). Organizational climate and culture. *Annual Review of Psychology*, 64, 361–388. <https://doi.org/10.1146/annurev-psych-113011-143809>
- Schneider, B., González-Romá, V., Ostroff, C., & West, M. A. (2017). Organizational climate and culture: Reflections on the history of the constructs in the Journal of Applied Psychology. *The Journal of Applied Psychology*, 102(3), 468–482. <https://doi.org/10.1037/apl0000090>
- Short, J. C., Payne, G. T., & Ketchen, D. J. (2008). Research on organizational configurations: Past accomplishments and future challenges. *Journal of Management*, 34(6), 1053–1079. <https://doi.org/10.1177/0149206308324324>
- Siehl, C., & Martin, J. (1989). Organizational culture: A key to financial performance? *Graduate school of business*, Stanford University.
- Smircich, L. (1983). Concepts of culture and organizational analysis. *Administrative Science Quarterly*, 28(3), 339–358. <https://doi.org/10.2307/2392246>
- Taylor, S., Levy, O., Boyacigiller, N. A., & Beechler, S. (2008). Employee commitment in MNCs: Impacts of organizational culture, HRM and top management orientations. *The International Journal of Human Resource Management*, 19(4), 501–527. <https://doi.org/10.1080/09585190801953491>
- Tushman, M. L., & O'Reilly, C. A. (1996). Ambidextrous organizations: managing evolutionary and revolutionary change. *California Management Review*, 38(4), 8–29. <https://doi.org/10.2307/41165852>
- van Dyck, C., Frese, M., Baer, M., & Sonnentag, S. (2005). Organizational error management culture and its impact on performance: A two-study replication. *The Journal of Applied Psychology*, 90(6), 1228–1240. <https://doi.org/10.1037/0021-9010.90.6.1228>
- Wang, C. L., & Rafiq, M. (2014). Ambidextrous organizational culture, contextual ambidexterity and new product innovation: A comparative study of UK and Chinese high-tech firms. *British Journal of Management*, 25(1), 58–76. <https://doi.org/10.1111/j.1467-8551.2012.00832.x>
- Xenikou, A., & Simosi, M. (2006). Organizational culture and transformational leadership as predictors of business unit performance. *Journal of Managerial Psychology*, 21(6), 566–579. <https://doi.org/10.1108/02683940610684409>

- Zavyalova, E., & Kuchеров, D. (2010). Relationship between organizational culture and job satisfaction in Russian business enterprises. *Human Resource Development International*, 13(2), 225–235. <https://doi.org/10.1080/13678861003703740>
- Zhang, J., Chiu, R., & Wei, L. Q. (2009). On whistleblowing judgment and intention: The roles of positive mood and organizational ethical culture. *Journal of Managerial Psychology*, 24(7), 627–649. <https://doi.org/10.1108/02683940910989020>

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