Abstract
Processes in firms and their (innovative) performance are not only determined by formally prescribed frameworks (i.e. the formal organization), but also by informal activities and structures (i.e. the informal organization). Despite its importance for firm operation, recent research has no common, shared understanding about all forms and characteristics of the informal organization. Further, research has primarily examined formal and informal organizations separately, leading to knowledge gaps about their interactions and, consequently, firm operations such as innovativeness. To fill this gap, I develop a comprehensive definition of the informal organization. My definition comprises informal social networks and the involved social capital, the organizational climate as well as status and political systems. The elements are interrelated with each other and with the formal organization, generating value, for example, by increasing tacit knowledge transfer and firm innovativeness. Further, I identify the origins of the informal organization. I consolidate related understandings about its forms and highlight its consequences, e.g. on formal management systems. Finally, I discuss the complexity of the concept. The multilayered facets make the informal organization a promising research topic, especially in the light of firm innovativeness, and, at the same time, demand for cautious handling of its definition and scrutiny.
THE HIDDEN POWER – DEFINITION, CHARACTERISTICS AND INFLUENCES OF THE INFORMAL ORGANIZATION ON FIRM INNOVATIVENESS

I. INTRODUCTION

“Anyone who has ever worked knows that the org chart, no matter how meticulously rendered, doesn’t come close to describing the facts of office life.”

(Fortune Magazine, July 2007)

As many people who have worked in an organization of any kind would agree to, there is much more behind organizational functioning than the formally prescribed structures and rules. In fact, firm operations are additionally driven by the “informal organization”, patterns of interactions between employees that deviate from formal prescriptions and structures, and the norms, values and beliefs that underlie these interactions (Gulati & Puranam, 2009). As apparent as this occurrence might appear at first sight, as complex it is in scientific scrutiny: the composition of the informal organization and its elements’ unified effects are not commonly defined. This has hampered the advancement of the knowledge on the informal organization itself and on its influence on firm functioning, especially on firm innovativeness (Allen, James & Gamlen, 2007). Here, informal connections and exchange schemata on the one hand enhance formal innovative efforts and, on the other hand, drive innovative actions by their own.

The notion of the informal organization has been anchored in organizational research since it first occurred in management literature in the middle of the 20th century. Especially during its current wave of popularity in research the notion has gained various attributes and meanings. With manifold research streams devoted to either the entire concept or only parts of it within various contexts, the research topic has become deeply rooted in many streams of
organizational theory and practice and has become not only complex by nature, but also by its definition.

Therefore, scholars of the informal organization are confronted with manifold, proliferated understandings of the concept: the approaches scholars take to discuss the informal organization are found in the (interconnected) contexts of learning and innovation (Wang et al., 2014; Kogut & Zander, 1996; Brown & Duguid, 1991; Burns & Stalker, 1961), of the social foundations of firms (Katz & Kahn, 1966), of strategy implementation (Rogan & Mors, 2014; Gulati & Puranam, 2009), of social networks of firms (de Toni & Nonino, 2010; Borgatti & Cross, 2003; Cross & Prusak, 2002; Morey & Luthans, 1991), of institutions that guide organizational behavior (Zenger, Lazzarini & Poppo, 2002; Sørensen, 2002; Barnard, 1938), and of organizational behavior (e.g. extra-role behavior; Baker & Bulkley, 2014).

While, for example, in organizational design literature scholars share the same general assumption, i.e. of behavior deviating from or exceeding formal prescriptions and generating patterns, most definitions either are very broad or very narrow. Some researchers identify “the informal organization” (Gulati & Puranam, 2009; Katz & Kahn, 1966; Barnard, 1938) without specifying the constituting forms or characteristics of the concept. Other scholars equate the informal organization with, examplarily, “informal social structures” (McEvily, Soda & Tortoriello, 2014; Biancani et al., 2014; Soda & Zaheer, 2012), hence focusing on one element of the concept only.

Whilst it is, for reasons of reduced complexity or focus on specific aspects, justified to take a broad or narrow focus in research, the parallel use of both approaches has created knowledge gaps. Next to the missing common ground to discuss the informal organization, the proliferation of understandings has impeded the advancement of knowledge on firm functioning (Brown & Duguid, 1991) and its sub-fields such as firm innovativeness. Recent research has studied formal and informal organizations like “ships passing in the night”
(McEvily et al., 2014: 302; Soda & Zaheer, 2012) instead of acknowledging both formal and informal organizational elements together in their examinations, even though “[g]iven the common basis of interactions, studying organizations from solely a formal or informal perspective is necessarily incomplete” (ibid.: 303). To reconcile this deficiency, we need a common definition of the informal organization (Zolper, Beimborn & Weitzel, 2013).

A tentative definition of the informal organization must acknowledge that the phenomenon is multidimensional. The informal organization not only determines the functionality of formal organizational elements but also affects psychological and personal aspects of employees. The informal organization is rooted in the human beings firms are employing – not only in whom they are employing, but in the fact that they are employing individuals. Human beings add their personal touch to the firm both unintentionally and actively – they determine how formalized processes are carried out, how they choose their words in formal information transfers, etc. On the other hand, employees are urged to re-define formal prescriptions and to improvise in unprecedented situations when the formal organization gives no or unsatisfactory answers, and to provide innovative behavior. Therefore, the informal organization is an inevitable firm feature.

My study aims at making up for the lack of a clear definition of the informal organization, at providing a thorough overview of the concept and at pointing out its multilayered facets. Specifically, I contribute to the literatures of organization design, management and innovation in three ways. First, by combining prevalent views I provide a comprehensive definition of the informal organization that accounts for its prevalent forms and characteristics discussed in research. Second, I identify the internal and external interrelations of the informal organization and highlight its effects on firm innovativeness. Third, I critically assess the concept of the informal organization in theory and practice and discuss its complexity.
The paper continues in four sections. The next chapter introduces the two organizing systems of the firm, namely the formal and informal organizations. In the third chapter I scrutinize the concept of the informal organization by its definition, origins, forms and characteristics, as well as the consequences on firm operations deriving from them, such as increased firm innovativeness. Further, I illustrate the internal and external interrelations of the informal organization that enhance, among others, innovative actions. In the fourth chapter I point out ambiguities of the term “the informal organization” and of its examination before concluding and discussing my findings in the fifth chapter.

II. THE OPERATING MECHANISMS OF THE FIRM

In organizational research it was long assumed that bureaucratized and highly formalized organizations are the only providers of firm functioning (cf. Weber’s, Gulick’s, Taylor’s work; Katz & Kahn, 1966). While this may have been true in the beginnings of manufacturing firms, the increasing complexity in organizing and on-site research provided evidence that there are additional forces that influence firm operations (Roethlisberger & Dickson, 1939). Today it is acknowledged that they are provided by formal and informal organizations. Formal and informal organizational elements both comprise patterns of employee interactions that determine firm functioning, i.e. how efforts are effectively coordinated, goals shared, information exchanged and resources accessed (Soda & Zaheer, 2012; Nickerson & Zenger, 2002). While the formal organization is represented visibly and influenceable actively by top management, the informal organization is indirectly formable only.

II.1. The formal organization

A glance on a firm’s organization chart gives a broad impression of the formal organization. It is what most people associate (falsely) with “the” organization of the firm: formalized structures and hierarchies that steer activities and processes. More precisely, the formal organization consists of prescribed hierarchies, responsibilities, reporting structures and codes
of conduct (McEvily et al., 2014; Nickerson & Zenger, 2002). Codes of conduct comprise a constant system of norms, symbols and rules about the employees’ behavior and performance criteria (Zenger et al., 2002). These formal features provide stability and reliability to organizational life (Meyer & Rowan, 1977; Burns & Stalker, 1961). Further, consistency and work output are ensured by paying employees wages and by installing authority in positions (Barnard, 1938).

The formal organization stems from and is necessary because of the attribution of roles to the employees of the firm for establishing cooperation. Every member of a firm fulfills a role designed to reach the firm’s formal purpose in cooperation with the other roles. Roles prescribe standardized patterns of behavior to accomplish specific tasks and do not comprise personal needs (Katz & Kahn, 1966). Roles can be clustered, i.e. collected by functions and specializations, by products or work groups, for example. Therefore, tasks of roles are interdependent – some intersect, some are tangential to another, others are joined only indirectly (Puranam, Raveendran & Knudsen, 2012; Katz & Kahn, 1966). Hence, role incumbents need to communicate and coordinate with each other (March & Simon, 1958), forming formal social networks surrounding all roles and sharing formal social capital (information and power attributed to the role).

Communication and coordination are determined by norms, i.e. expectations about the employees’ behavior, that prescribe and sanction interaction modes. They are supplemented by values comprising ideological justifications and aspirations, reflecting the objectives the community of employees has and gluing together its members (Katz & Kahn, 1966). Turnover and career paths, i.e. changing role inhabitants, may effect temporary low constancy of individual work units. Hence it is the pattern of relationships rather than the employees themselves that makes an organization enduring (Katz & Kahn, 1966).
A glance at the organization chart of the firm, though, does not fully reflect all structures and activities that account for firm functioning. While seemingly invisible, a second system contributes as much to firm operation as the formal organization. Some scholars even go as far as claiming that it “is the actual practices (...) that determine the success or failure” of firms (Brown & Duguid, 1991: 41).

II.2. The second system

The second system is the informal organization of the firm. While the next chapter is devoted to its origins and facets, some definitions help to distinguish the two systems at this point of the study. Among the features that identify formal and informal organizations the main one is codification. While formal characteristics are officially formulated, (mostly) written down and executed through formal position (Zenger et al., 2002), informal features are uncodified, invisible, “behind the chart” and voluntarily enacted (Soda & Zaheer, 2012; Krackhardt & Hanson, 1993). This definition is congruent with the understanding of “informal” in other contexts, such as “informal deals” closed by handshake (Dokko & Rosenkopf, 2010). Different to their discretely arrayed formal counterparts, informal elements are continuously arrayed, as relationships can differ incrementally by personal perception (Zenger et al., 2002; Burt, 1997).

The informal organization appears in more details than in missing codification and various arrays; it is present in all activities that deviate from formal prescriptions. The diversity of its forms and the lack of their unified recognition in research make this study necessary.
III. **THE INFORMAL ORGANIZATION**

Designed procedures appearing to be meaningless in practice and unforeseen activities and structures dominating firm operations indicate that informal behavior is an integral part of firms. Cooperation based on shared values, for example, is much more often used than tables of work organization reveal (Katz & Kahn, 1966).

Since Barnard (1938) first theorized about the informal organization of firms, the topic has experienced waves of high attention and downs of neglect in research and has diversified into various research streams. The interest in social networks and social capital in the 1990s (see the extensive overview provided by Adler & Kwon, 2002) as well as recently in the microfoundations of the firm (Barney & Felin, 2013) shifted the general focus of management studies back on the contribution of employees to firm performance (McEvily et al., 2014). Owing to the demand for organizational forms that can react to modern dynamic environments (due to rapid technology changes etc.), this has resulted in the re-identification of the informal organization’s potentials (Caimo & Lomi, 2015; Gulati & Puranam, 2009). Advancements in technology for examining informal interactions, e.g. in social network analysis (Soda & Zaheer, 2012; Wasserman & Faust, 1994), fostered the trend to investigate new perspectives of the informal organization, of organizational design and coordination (McEvily et al., 2014; Okhuysen & Bechky, 2009). As a corollary, various definitions of the informal organization emerged, making, to my knowledge, the development a common definition necessary to enable a more thorough study of firm operations.

**III.1. Definition, preconditions and characteristics**

I define the informal organization as an uncodified, institutional social system embedded within the formal structures of the firm. It is enacted and characterized by human beings, shows in behavior deviating from formally prescribed behavior, adds structure to the firm and contributes to its operation as much as the formal organization. The informal organization
consists of informal connections between employees that agglomerate to hierarchy- and
department-spanning informal networks. Through these, informal social capital diffuses.

Another element is the organizational climate that governs the employees’ activities. Further,
political systems and status structures influence the networking and contributing behavior of
the employees. It thereby *stimulates a spectrum of the employees’ needs* that are unaccounted
for by the formal organization. It further provides a framework for and a variety of actions to
choose from in situations in which the formal organization fails to guide.

The interactions within the informal organization not only affect employees’ social integration
within the firm but also organizational coordination, communication and learning (Kogut &
Zander, 1996). Informal organizations operate within firm boundaries and therefore are
inseparable from formal organizational elements (Katz, 1964). Moreover, the two
organizational forms interact and mutually affect their effects.

My definition joins and incorporates the diverse understandings of the informal organization.
It includes the prevalent perception of social networks and the associated sharing of social
capital (Caimo & Lomi, 2015; de Toni & Nonino, 2010; Borgatti & Cross, 2003; Cross &
Prusak, 2002; Krackhardt & Hanson, 1993; Morey & Luthans, 1991; Krackhardt & Stern,
1988). Further, it comprises the dynamics induced by political and status systems and by the
multifaceted organizational climate (Zenger, Lazzarini & Poppo, 2002; Sørensen, 2002;
Barley, 1990; Katz & Kahn, 1966; Burns & Stalker, 1961; Barnard, 1938). Moreover, my
definition acknowledges the informal organization as a social construct and an essential part
of firm functioning (Biancani et al., 2014; McEvily et al., 2014; March & Simon, 1958).

A necessary condition for the informal organization to establish and to become pronounced is
comradeship among employees (Barnard, 1938). This feature can be provided by, for
example, selective hiring. Without comradeship, employees fulfill their personal needs on
their own or within small groups. The networks do not interconnect, and social capital and
institutions are barely shared. Consequently, the organizational climate is weak and non-representative of employees’ goals.

With comradeship and once the informal organization is established, it has two major characteristics: strength and balancing stability and flexibility. First, an informal organization can be considered strong if not only informal institutions are widely and intensely shared throughout the firm (Sørensen, 2002), but when network ties are frequently approached (Gulati & Puranam, 2009). If an informal organization is strong, it is an integral part of organizational functioning. A weak informal organization influences the firm, too, but it is less of a multiplier or hindrance to firm functioning than a strong one.

Second, the informal organization balances stability and flexibility. In particular, it is stable on an overall level and flexible on a network level. Stability is induced by being slow in adapting to changes of the employees’ behavior or of the formal organization (Nickerson & Zenger, 2002). This results from, for example, informally derived routines which are not quickly adapted to new work processes (Rogan & Mors, 2014; Nelson & Winter, 1982) or from strong ties that are neither quickly made nor dissolved (Zenger et al., 2002). This stability in the informal organization provides the firm with structure (Krackhardt & Hanson, 1993; Barley, 1990). On the other hand, the informal organization is dynamic and adaptive on the network level (Ahuja et al., 2012; Barnard, 1938) because networks’ compositions “shift when new projects demand different kinds of information and expertise” (Cross & Cummings, 2004: 929). This provides the informal organization with the flexibility that makes it capable to react to environmental changes.

Table 1 depicts an overview of the informal organization’s dominant factors and mechanisms. In the following sections, the factors, forms and consequences of the informal organization will be discussed. This representation unifies the prevalent understandings of the informal organization and draws discrete conclusions from them.
Table 1. The factors and mechanisms of the informal organization of the firm.

III.2. Origins of the informal organization

One of the distinguishing factors between an operating company and a company that is merely registered, existing only on paper is its enactment by human beings (Katz & Kahn, 1966). The registered company has, at least, a designated managing board and possibly an organization chart. In contrast, the operating company’s top managers execute their powers, so the organization chart is “lived”. This scenario is easily comparable to a skeleton, i.e. the formal organization, and the flesh and the central nervous system that make it go, i.e. the human beings in it and the informal organization they establish (Krackhardt & Hanson, 1993; Morey & Luthans, 1991). This nature of firms, being “lived” by individuals, is one of the two fundamental theoretical understandings why informality is present in and needed for organizational functioning. The second reason lies in the gaps in formal organizational design that trigger informal activities.

Human characteristics add informality to firms in two ways. It is a central argument of sociology scholars that the natural predisposition of human beings to interact with each other causes informal behavior in firms (Katz, 1964; Barnard, 1938). In firms, role incumbents are officially told to communicate, to coordinate and to collaborate in order to reach the
organizational goal. On the other hand, individuals also voluntarily interact over lunch breaks, in the elevator etc. (Kleinbaum, Stuart & Tushman, 2013). These informal interactions aim at socializing on a personal level and at gaining social capital from other employees, such as private advice and friendship, or professional information and hands-on support (Borgatti & Cross, 2003). This intrinsically cooperative and habitual behavior of human beings makes informal activities and structures arise and persist.

Adding organizational boundaries forms a second argument that human beings are the originators of the informal organization. The formal systemization of activities fails to satisfy employees who in turn try to equalize that by informal behavior. More precisely, formal roles, prevalent formal norms and predominant values that organize organizational functioning incentivize activities deviating from formal prescriptions. While their introduction into formal organizations is necessary for firm functioning, they inevitably cause problems. These features aim at reducing the variability in performance and at coordinating the efforts of a community of many individuals predictably and efficiently (Burns & Stalker, 1961). At the same time, though, they impede the employees’ personal satisfaction. Human beings have manifold needs and interests next to those that are satisfied by filling organizational roles, a concept called partial inclusion (Katz & Kahn, 1966). Prescribed roles can suppress parts of the individual personality, such as feelings of self-determination, spontaneity and the expression of individual skills and talents (Burns & Stalker, 1961). Consequently, the employees connect with others and develop an informal structure that compensates for these deficiencies and that administrates the conflict between regulations and human needs (without solving it; Katz & Kahn, 1966; Burns & Stalker, 1961).

The second prevalent reason for informality in firms is a common argument in management research and lies in the nature of formal organizational design. Formal prescriptions are designed to cover general problems but “are abstracted from actual practice [and] inevitably
and intentionally omit the details” (Brown & Duguid, 1991: 40). These characteristics are a fertile soil for informality. Firms barely operate in completely stable and predictable markets or economic and political environments. Hence, while the organizational environment continuously changes, it produces unique problems for firms (Burns & Stalker, 1961). Employees and supervisors must repeatedly “piece out” the formal organization with flexible, improvised action (Katz & Kahn, 1966: 309). Even though the top management team more or less often reconfigures the formal organization according to external conditions, small adjustments and immediate reactions need to be executed through informal behavior. Further, individuals face ambiguities and problems in tasks and processes that make them improvise and seek advice from their colleagues (Brown & Duguid, 1991). They, in turn, may not have answers and refer the help-seeker to their contacts, forming informal social networks independent from those formally prescribed and ultimately the informal organization.

III.3. Forms of the informal organization

The socializing predisposition of human beings and the fragmented formal prescriptions lead to (1) second identities of the employees and arrays of innovative activities, (2) the establishment and maintenance of an organizational climate, (3) the formation of social networks and the advancement of the firm’s social capital, and (4) the creation of political structures and status systems.

(1) The compensation for unfulfilled needs by informal activities and relationships enables employees to reach higher levels of satisfaction of self-expression and determination by adding a second identity and arrays of activities to them. Next to the role of job holders that is recognized by supervisors they become individual personalities to their colleagues. Self-determined behavior originates predominantly in groups and spreads throughout the firm through coordination and collaboration efforts (Brown & Duguid, 1991; Katz & Kahn, 1966). By satisfying multiple needs through their interactions, employees identify more with the firm
and its goals and show personally motivated, informal behavior that increases their own and the firm’s effectiveness and innovativeness.

Particularly, this shows in “unconscious, automatic, responsive action” (Barnard, 1938: 186) that deviates from formal prescriptions. The reasons for individuals to perform more than formally demanded of them are discussed extensively in economic organizational behavior and human resource theory. For example, it is argued that employees act reciprocally for being paid generously (de Vos, Buyens & Schalk, 2003). Employees, though, can also be motivated intrinsically to perform higher efforts than demanded, showing extra-role behavior (Baker & Bulkley, 2014). Manifold voluntary acts within the informal organization buttress the firm’s system: everyday actions that are taken for granted but, at second sight, are informal behaviors (Camino & Lomi, 2015; Katz & Kahn, 1966). They comprise cooperative activities (giving a spontaneous helping hand or piece of advice), protective actions for the firm (in dangerous situations), or self-training for obtaining additional responsibility triggered by their identification with their firm and colleagues. Further, employees make decisions not only in official ways but based on additional information they receive from informal exchanges with their contacts. This way, informal behavior and coordination lead to neglected prescriptions, shortcuts in processes and information spread more directly or throughout wider (or smaller) firm areas than formally intended.

While extra-role behavior is exhibited by basically all employees, patterns deriving from it are most prevalent in network structures (Coleman, 1988). Thus, employees can be understood as valuable resources of firms (Katz, 1964) and informal actions and structures of employees within the informal organization as a strong pillar of firm operations.

(2) When employees succeed in satisfying their needs through informal behavior they likely speak favorably about the qualities of their company within and outside their work environment (Katz & Kahn, 1966). This is one feature of the organizational climate.
Organizational climate, or culture, reflects the norms and values of the informal system and represents a frame of reference for activities and interactions. It includes and represents the history of struggles, the type of people within the organization, work processes and the modes of communication. Informal norms, values, routines, and manners, i.e. informal institutions, are based on implicit, socially derived understandings (Zenger et al., 2002; Hofstede, 1980). They build on the capacity of collective action generated by informal social networks and informal social capital (Zenger et al., 2002; Nelson & Winter, 1982) and simultaneously provide implicit guidelines for activities and decision making. They facilitate reacting to problems spontaneously and enhance the feeling of community and collective capacity. They are manifested by ecological and psychological factors (Barley, 1990; Hofstede, 1980; Meyer & Rowan, 1977) and repeated interaction (Barnard, 1938) and “reduce uncertainty by creating expectations in the behaviour of others” (Beckert, 1999: 782), thereby stabilizing firm functioning.

The organizational climate furnishes the informal organization with a general strategy, i.e. a tendency of actions. The informal spirit can either correspond with or deviate from the formal goals. For example, it can follow the firm’s goal of customer orientation, or the contrary of it (Gulati & Puranam, 2009). The common informal goal may not be shared by every employee, but a general tendency is necessary to make the informal organization consistent and working.

If the organizational climate is strong enough to provide structure to the firm, it can piece out fragmentary formal organizations (Sørensen, 2002; Schein, 1985).

Different from formal networks that are established by formal structure, informal social networks are voluntarily created and maintained, and comprise informal contacts and the informal exchange with formal contacts. The natural predisposition to form ties is steered by homophily, i.e. similarities, by heterophily, i.e. dissimilarities, in age, gender, race, values, ethnicity, etc. that make actors attractive to establish a tie with (McPherson, Smith-Lovin &
Cook, 2001; Graham, 1971), or by referrals of contacts to third parties. Physical location within the firm influences the development of informal ties, too (Kleinbaum et al., 2013; Burt, 1992). Specifically, as “the likelihood of informal tie formation between individuals increases with propinquity and the frequency of contact” (Gulati & Puranam, 2009: 427), one’s network of formal contacts can influence who will interact with whom informally (Biancani et al., 2014). The reasons for informal tie formation can also be detached from formal boundaries (Cross & Prusak, 2002; Anderson, 1999), e.g. by being friends or sports team members. Ties can be frequent or infrequent, utilitarian or affect-laden, weak or strong and of different importance depending on purpose or characteristics of the relationship (Nelson, 1989; Granovetter, 1973).

The dyadic informal connections accumulate to informal social networks as every employee is connected with various other employees that are in turn connected with others. Informal social networks direct, constrain and induce behaviors of employees because being connected and acting with others increases trust and determines influential power and access to resources, i.e. the disposal over informal social capital (Granovetter, 1973).

Informal social capital1 is the direct benefit of being informally connected to others, namely to have actual or future access to resources (Ahuja et al., 2012; Kleinbaum & Tushman, 2007). This access translates into an otherwise unavailable array of possible individual or collective actions and power (Adler & Kwon, 2002; Nahapiet & Ghoshal, 1998; Coleman, 1988). It takes the forms of information, advice, friendship and affect (Tsai, 2002), as well as of (political) influence, resources and solidarity among actors within a network (Ahuja et al., 2012; Nahapiet & Ghoshal, 1998). The concept of social capital bases upon the norm of

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1 Informal social capital is different from human capital. Human capital comprises the experience, knowledge, skills and abilities of a person (Becker, 1964). Social capital, in contrast, is the set of opportunities a person has by being connected with others in which human capital can be applied (Burt, 1997; Coleman, 1988).
generalized reciprocity, i.e. that the capital giver can expect the capital recipient to give help and advice to him or her, or to someone else in the community sometime in the future (Adler & Kwon, 2002).

The actual form and magnitude of one’s informal social capital depends on the location within the informal social networks and the ties’ strength and content (Tortoriello, Reagans & McEvily, 2012; Nahapiet & Ghoshal, 1998; Burt, 1997). Further, they depend on the closedness of the informal social network, i.e. if the nodes of a network are connected with each other or not. It is argued that either the more closed a focal actor’s network is, the easier norms and trustworthiness are established within the network and the higher is the informal social capital from collective action for the community of employees (Gargiulo, Ertug & Galunic, 2009; Coleman, 1988). Contrarily, it is assumed that informal social capital is generated in a network with few interconnected ties. The focal actor who links unconnected groups gains social capital through receiving complementary knowledge and control advantages over the other members of the networks (Burt 1992; 1997). Referring to the body analogy, informal social capital is comparable with the blood that is distributed throughout the system sharing decisive substances.

Summing up, informal contacts and the benefits derived from these interactions constitute prevalent forms of the informal organization in firms.

(4) The diverging access to informal social capital between employees influences the formation of political systems and status structures (Burns & Stalker, 1961). Next to the formal power attributed to the position individuals fill, the informal social capital (e.g. valuable information) they dispose of and the number of their influential contacts determine their informal power position in the informal organization of the firm. Through the political system, employees try to achieve more or better monetary (e.g. wages, capital) or material (e.g. workpeople, equipment) resources of the firm (Burns & Stalker, 1961). The status
system represents the distribution of different informal ranks within the firm. It depicts the
distribution of rights and privileges, as well as of duties and obligations that are inferred upon
the actors through their informal networks and the demand or supply of social capital. In
many aspects the status and political systems are alike and the existence of one system implies
the simultaneous existence of the other system. The political system, however, includes
combinative action of various actors, while one’s status is individually determined. Status and
political systems, again, reduce the efficiency of the firm as they are channels through which
employees seek to reach goals different from those of the firm (Burns & Stalker, 1961).

III.4. Consequences on firm innovativeness and formal structures

Additional mechanisms through which the informal organization influences firm functioning
are (1) the enhancement of the firm’s innovativeness, and (2) adjustments in the formal
organization. Amongst the effects of the various gradual forms of the informal organization,
these are the most prevalent ones in literature.

(1) Employees’ interactions and access to diversified social capital can translate into
higher firm innovativeness (Tortoriello et al., 2012; Katz, 1964). Formal prescriptions to raise
innovativeness of employees, i.e. group work and job rotation, reflect this idea: innovations
develop through exchanges about projects and problems. However, formal meetings that are
crammed with protocols and milestones oftentimes do not produce sufficient output (Allen et
al., 2007). Alternatively or additionally, employees that show outgrown, informal behavior,
that not only perform their role dependably (by meeting or exceeding quantitative and
qualitative standards of performance), but also behave innovatively and spontaneously, i.e.
identify flaws in the system or room for improvement as well as are inventive, contribute to a
firm’s innovativeness (this will be further elaborated below; Dahlander & McFarland, 2013;
Perry-Smith, 2006; Katz & Kahn, 1966). As “the most useful (valuable) information is rarely
that which flows down the formal chain of command in an organization (…), it is that which
is obtained from someone you have dealt with in the past and found to be reliable” (Powell, 1990), exchange in informal networks is an important source of innovations. Particularly, the informal network position of employees influences their innovative output. While, for example, a highly innovative person typically is a boundary-spanner between networks despite their formal position, a so-called catalyst of information is embedded in closed but diverse networks within and outside the company (Tortoriello, McEvily & Krackhardt, 2014). Strong ties between the employees can make up for a small common knowledge base (Reagans & McEvily, 2003). When informal contacts of higher hierarchical levels are approached and won as champions for a project, processes are sped up and the quality is enhanced as more various (qualitatively as well as quantitatively) viewpoints are considered (Doherty & Bowman, 1995; Burt, 1992).

Innovativeness is further enhanced by the organizational climate as in “networks, prosocial behaviors such as the willingness to share knowledge are enabled because of the ease of creating and enforcing cooperative norms” (Tortoriello et al., 2014: 4) that facilitate idea exchange and innovative collaboration. Thus, organizational survival depends to a certain degree on the informal organization in firms that require high innovativeness.

(2) Further, the informal organization can influence design and functions of the firm’s formal organization. If the management team is aware of the employees’ efforts to compensate for flaws in formal structures, such as informal networks for knowledge exchange, it can use these reference points to re-design the formal structure accordingly (Nickerson & Zenger, 2002; Barnard, 1938). This approach is efficient because “it is easier to replicate existing routines than to design optimally” (Kogut & Zander, 1996: 508). Further, it lessens time lags of the informal organization to adjust to the new formal organization (Dahlander & McFarland, 2013; Gulati & Puranam, 2009). Design efforts that account for informal behavior can ultimately lead to situations in which the re-designed formal elements make up for weaknesses of the informal organization (Zenger et al., 2002).
Exemplarily, in a firm that is highly formalized and rigid, the introduction of flexibility into work processes can transfer the informal organization’s benefits into the formal organization, for example when supervisors are admitted some leeway in the application of formal policies and are allowed to implement policies informally. Thus they can overcome the discrepancy between the reality perceived of policy-makers and the reality experienced by supervisors and subordinates (Katz & Kahn, 1966). They can adapt policies in ways appropriate for the conditions they work in, not apply them as written. As supervisors face the challenge to respond to the needs of the employees’ personalities (Barnard, 1938), the introduction of greater authority and sanction-free informal problem solving combines formal compliance with the motivational quality of interpersonal relationships and self-determination that satisfy the workers and increase the productivity of firms (Brown & Duguid, 1991; Katz, 1964). Further, leaders that foster personal, role-external relationships between the subordinates stimulate their need for recognition and comfort and thereby enhance employee performance. Hence, informality may not only be a tolerated byproduct, but can be utilized in policy-making (Katz & Kahn, 1966).

This reasoning has found its way into the design of management systems. So-called “organic structures” are preferable for firms in unstable environments in which problems and tasks cannot be predicted (opposed to mechanistic systems in stable conditions; Burns & Stalker, 1961), a modern interpretation of which are, amongst others, “self-managed teams” (Roberson & Williamson, 2012). Organic systems lack clearly defined hierarchies and tasks. Jobs and their methods are regularly readjusted to the external conditions; interaction occurs laterally as well as vertically. Even though this management system still is formal in the sense that it is a prescribed form of organization, it has informal features such as flexibility and an on-demand-networking element to react to environmental challenges and increase firm innovativeness (Burns & Stalker, 1961).
Summing up, the informal organization is a significant driver of firm operations. Its effects are further steered by its interactions with the formal organization.

III.5. Internal and external interrelations

The informal organization is interrelated in two ways: internally and externally. Internal interrelations exist between the components of the informal organization. External interrelations appear between the informal and the formal organization.

III.5.1. Internal interrelations

Informal social networks, informal social capital and informal institutions of the organizational climate that together account for a major part of the informal organization not only contribute to firm functioning separately (Zenger et al., 2002; Tsai & Ghoshal, 1998), but also by interacting among themselves.

First, informal social networks interact with informal social capital and informal institutions. It was already indicated that informal social networks and informal social capital are closely related. Consequently, as “recurrent behavior leads to the formation of an interaction order and a set of shared typifications that gradually acquire the moral status of taken-for-granted facts” (Barley, 1990:67), interactions within informal social networks generate informal institutions such as norms of communication (Zenger et al., 2002). Additionally, informal networks are the informal institutions’ conduits as their architecture determines the diffusion and the application of informal institutions throughout the firm. Informally derived routines, for example, are established through closed networks effortlessly, and an open conglomerate of networks consisting of weak ties transmits them throughout the firm easily (Gargiulo et al., 2009; Burt, 1992; Coleman, 1988).

In turn, informal social capital influences informal institutions and the architecture of informal social networks. It provides the capacity for collective action which builds the base for the

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2 The starting point of the examination is chosen arbitrarily.
acceptance and application of informal institutions (Barley, 1990). Also, the knowledge about accessible informal social capital encourages to strengthen some ties or to dissolve others, influencing informal networks’ configurations (Nahapiet & Ghoshal, 1998).

Further, informal institutions affect informal social networks and informal social capital. Informal institutions facilitate the networking processes between actors by providing shared guidelines for behavior. (Breached) compliance influences the opinions towards one’s contacts and eventually leads to the consideration of one’s network composition, i.e. with whom to intensify and with whom to weaken their ties (Ahuja et al., 2012; Adler & Kwon, 2002; Barley, 1990). For instance, if the social norm of reciprocity, i.e. the belief about an exchange partner’s future behavior to compensate for a received favor (Caimo & Lomi, 2015), is violated by the counterpart, the actor might reconsider their connection. Informal institutions also facilitate the use of informal social capital. They provide guidelines for its use, e.g. how information is transmitted, and make the actors “speak the same language” for accessing it (Adler & Kwon, 2002; Nahapiet & Ghoshal, 1998; Podolny & Baron, 1997).

Contrarily, there are no interactions between formal social networks, formal social capital and formal codes of conduct. Their prescriptive nature does not allow interactions between them: as soon as their admitted flexibility is exceeded, acts turn informal. When the available formal social capital is not sufficient, employees approach their informal contacts for help. The same applies for the deviance from formal institutions.

III.5.2. External interrelations

The informal organization not only influences firm functioning, but it also interacts with the formal organization (McEvily et al., 2014). While formal and informal elements have standalone values for the firm, e.g. by supporting communication and coordination efforts (Cross & Sproull, 2004), their interactions and combined application can influence these outcomes (Soda & Zaheer, 2012; Anderson, 1999). Even though this property is commonly
accepted, there is no “cumulative body of knowledge devoted to advancing our understanding of the relationship between these two elemental features of organizations” (McEvily et al., 2014: 304). Following the scheme of logics provided by McEvily et al. (2014) I present prevalent mechanisms of formal and informal elements’ interactions based on our definition of the informal organization.

The informal organization interacts externally with the formal organization in different ways: either their effects enhance, deteriorate or mutually lift each other. While McEvily et al. (2014) focus on “informal structures”, i.e. networks, only, my definition of the informal organization allows me to go more into detail. Due to the many possible combinations of formal and informal elements (McEvily et al., 2014), the subsequent collection of mechanisms is general rather than comprehensive.

The augmentative interaction of McEvily et al.’s (2014) emerges when formal and informal organizational elements have the same (positive or negative) effect on firm performance or functioning and their interaction reinforces this influence. This can, for example, occur in the case of tacit knowledge transfer. The achievement of tacit knowledge transfer is a crucial factor of organizational design. Tacit knowledge is private know-how inherent in the owner and hard to formally transmit (Polanyi, 1966). Formal efforts to transfer tacit knowledge, e.g. job rotation, acknowledge that tacit knowledge is more easily transmitted through personal interactions, especially those of strong ties (Reagans & McEvily, 2003). This effort can be reinforced by the informal organization of the firm (Cross & Sproull, 2004). Tacit knowledge transfer is determined by personal explanation (Polanyi, 1966), motivation, and effort (Reagans & McEvily, 2003), so personal affinity between actors facilitates this process. Therefore, tacit knowledge exchange is more likely and successful between contacts that are formally and informally connected (Levin & Cross, 2004). Not only do employees understand why their contacts need information, but they feel personally inclined to help and,
respectively, to accept the information they receive. This further decreases coordination costs and time consumption in the firm (Dahlander & McFarland, 2013; McEvily et al., 2003; Kogut & Zander, 1996).

Supplementary interaction occurs when the negative effect on firm functioning of either formal or informal elements is compensated by the informal or formal counterpart, making the total effect positive (McEvily et al., 2014).

In terms of innovativeness, informal organizational elements can either augment or supplement formal innovation efforts (see above). Specifically, their supplementary interrelations can create voluntary collaborations by enhancing the diffusion of specialized knowledge throughout the firm and thereby cross-fertilize ideas (Dahlander & McFarland, 2013; Kogut & Zander, 1996). In particular, boundary-spanning informal networks foster innovativeness in firms with decentralized formal structures in which boundary-crossing exchange is rare. For example, especially well connected contacts within informal social networks, such as “hubs” with averagely more connections than other network members, possess a lot of information and can establish shortcuts between many pairs of employees, shorten the path length of a formal network and accelerate diffusion of ideas (Schilling & Fang, 2013). The informal exchange with other employees or divisions helps to get informed about current, past and future projects, about problems faced and solutions found, which is fruitful for the generation of new ideas, especially when the information is divergent (Soda & Zaheer, 2012). This leads to increased awareness of the various processes within the firm and can initiate formally unforeseen, additional projects and collaborations in decentralized firms (Cross et al., 2002).

There are additional supplementary relationships we have already discussed without calling them so. First, the origins of informality in firms indicate a supplementary connection. The failure of the formal organization to address and meet needs of the employees is compensated...
by the establishment of informal links, values and behavior (Gulati & Puranam, 2009). Second, the gaps in formal prescriptions condition their “piecing out” (Katz & Kahn, 1966) by employees through informal exchanges and information collection. Third, the formal organization assigns responsibilities and tasks for stable environments. Informal institutions “help us to decide what to do, because we think we know what others will do” (Beckert, 1999: 782) and support proactive advice and information sharing between employees when formal guidelines are not sufficient to provide answers (Cross et al., 2002; Schein, 1985). This is particularly valuable in unexpected situations and times of organizational changes (Weick, 1987). Hence, the available social capital and the organizational climate compensate for the lack of reactivity of the formal organization in unprecedented situations informal networks (Krackhardt & Hanson, 1993).

On the other hand, the formal organization can make up for a negatively strong informal organization. The innovative capacity of the firm, for example, can be diminished by informal organizational elements. If employees concentrate mainly on interactions with informal contacts the horizon-widening effect vanishes and a narrow focus of interest and information input drives down innovative output (McEvily et al., 2003; Cross et al., 2002; Adler & Kwon, 2002; Nahapiet & Ghoshal, 1998), especially within closed networks (Gargiulo et al., 2009; Coleman, 1988). Over-identification with one’s informal contacts has the same effect, as it may hinder the consideration of alternative views, rejection of ideas from other groups (the not-invented-here syndrome; Katz & Allen, 1982), or inertia in adapting to environmental changes (Sørensen, 2002). Formal prescriptions forcing the exchange with other departments can mitigate the creation of such resistance because employees are urged to interact with others outside their informal focus group (McEvily et al., 2003).

As the augmentative and the supplementary logics are the most prevalent in theory (and practice), the remaining logics will be introduced shortly.
When negative influences cannot be compensated for by positive effects of the other organizational form, we speak of subversive interactions (McEvily et al., 2014). This can, for example, occur in a situation of (temporary) inconsistency between formal and informal organizations. When the informal organization is not aligned to the goal of the formal organization (yet), the benefits of the formal orientation cannot be reaped (when the informal organization is strong). Then the viability of the formal organization is, at least for a short term, undermined and cannot lead to the proclaimed goals like in the case of consistency (Dahlander & McFarland, 2013).

On the other hand, inconsistency between formal and informal organizations can also add up to positive effects and induce an inversive logic: when the joint negative influences of the formal and of the informal organizations have a positive effect on firm functioning (McEvily et al., 2014). Even though neither of the strategic orientations can fully exhibit its potentials when inconsistent, under certain circumstances inconsistency can have beneficial outcomes on an organizational level (Gulati & Puranam, 2009). After reorganization processes the formal and informal organization may each emphasize opposing poles of a duality of strategies, like exploration and exploitation. Until the informal organization has adjusted to the formal organization by reorienting values and changing informally derived routines, the inconsistency can lead to the attainment of ambidexterity, i.e. that the firm can successfully pursue both strategies at the same time (Tushman & O’Reilly, 1996). However, this is only achievable with a strong informal organization and when the gains of ambidexterity are bigger than the costs of an inconsistent organizational architecture (Gulati & Puranam, 2009).

The very reverse appears in the excessive logic when the single positive effects of both formal and informal organizations add up to a negative total effect (McEvily et al., 2014). For example, informal shortcutting can save time and bureaucratic efforts when hierarchy- and function-spanning informal contacts provide information or make spontaneous decisions.
(Tsai, 2002). However, the speed of informal idea diffusion can clash with fast formal project efforts. If formal and informal structures both foster speedy innovation, projects that look promising at first sight and that initiate spontaneous actions, but are suboptimal at the second glance might compete out more mature projects and diversity of ideas within the networks (Schilling & Fang, 2013). Further, the diversity of local languages and potential project partners can paralyze innovative efforts in a decentralized formal organization not matching the boundary-spanning informal networks (Wang et al., 2014; Tortoriello et al., 2012; Cross et al., 2002).

III.6. Summary

Summing up, the informal organization is a voluntarily enacted meshwork of actions and connections of employees that enriches their personal and professional possibilities and that creates additional organizational structures within the firm over and above the formal ones (Biancani et al., 2014; Barnard, 1938). While the formal organization assigns responsibilities and tasks to positions and roles, i.e. people (Meyer & Rowan, 1977), it cannot fully prescribe how work is actually executed, as the human factor allows for different interpretations and non-routine situations demand for individual reactions (Cross et al., 2002; Krackhardt & Hanson, 1993). The informal organization adds flexible, voluntary interactions that can adjust to unpredictabilities and gaps in the formal organization, making the two inseparable in action (Morey & Luthans, 1991; Burns & Stalker, 1961). The informal organization influences who interacts with whom, which information is shared, which activities are executed or skipped. It stimulates a spectrum of the employees’ needs that are unaccounted for by the formal organization. Therefore, the informal organization is “necessary to the operation of formal organizations as a means of communication, of cohesion, and of protecting the integrity of the individual” (Barnard 1938: 123). The characteristics of informal organizations, namely strength, stability and flexibility, emphasize the relevance of the informal organization for
firm functioning once more. If, for example, the informal organization would not provide
stability and flexibility, it could barely serve as means of spontaneous reaction in turbulent
situations.

However, as straightforward the discussion of the informal organization may have seemed so
far its scientific examination is not. Still there are some features of informality in firms that
need to be critically accounted for when studying this topic.

IV. CRITICAL ASSESSMENT

Anecdotal evidence and the universality of the informal organization lead to the assumption
that the study of the informal organization is straightforward. It was, however, already
indicated that also well-versed scholars neglected to consider the formal counterpart in their
research and thereby failed to gain deeper insight in firm functioning. Having incorporated
that in my study, there are several additional features of the informal organization that
demand attention.

First, it would be a misconception from the consequences informal behavior has on formal
prescriptions (e.g. introducing flexibility) that the informal organization can crowd out the
formal organization. Rather this process makes formal organizations, or parts of them, more
acceptable for employees. Ultimately, the maceration of structures and hierarchies can lead to
an organizing principle of “no formal rules”. However, only because the system is embossed
by informality it does not necessarily mean that formal and informal processes merge to
become “one” organization. This is coherent with the definition of the informal organization:
it consists of voluntary interactions and serves to stimulate private as well as organizational
goals. Thus, an informal organization still can emerge to address unfulfilled needs in very
organic systems. Yet it might be of a weaker kind because it is not that relevant for
organizational functioning as many needs are already satisfied.
In the same vein, recent media attention on technology firms such as Netflix and Google shed light on work practices that make the informal organization less “undesirable” as commonly assumed (Gulati & Puranam, 2009): free snacks, free creative work time, provision of sport and fun facilities – various efforts to satisfy personal needs of employees and to increase creativity and productivity. Is this some kind of “prescribed informal organization”? In fact, these are no “organic systems” as they do not debilitate hierarchical systems. Nor they are formal prescriptions as no employee is forced to participate. Hence, they are “semi-formal” (Biancani et al., 2014): formally provided conditions facilitating informal networking and exchanges.

Further, while the practical experience of informality in firms makes the concept easy to grasp theoretically, it might entrap to categorize some conditions as informal at the same time. It is straightforward to accept that friendship between coworkers fulfills a personal need informally and therefore is the source and/or outcome of the informal organization. However, also the formal organization may have led to the personal relationship: colleagues connect when they work at the same workbench. If formal pay schemes incentivize exceeding performance, the lines between formally and informally induced activities get blurry. Thus it is sometimes hard to distinguish between formal and informal natures. This is specifically critical in ex-post studies. Oftentimes it is not easy to disentangle, or to recall by the employees, whether someone acted in a specific way because of formal prescriptions or informal needs in the first place (e.g. before an activity became routinized; Katz & Kahn, 1966). Answers to retrospective questionnaires can comprise (un-)intentional biases of the interviewees. Therefore it is important to distinguish in organizational research carefully, for example by scrutinizing processes and activities under the premise of jointly regarding formal and informal organizational elements and their development (Caimo & Lomi, 2015).
Next, employees, especially managers, often “are held accountable to the map, not the road conditions” (Brown & Duguid, 1991: 42). It may not turn out explicitly positive for the individuals in the firm to deviate from formal prescriptions. They may do so with good intentions, but formal appreciation or sanctioning mechanisms may not honor the outcomes or may punish the deviations. This has implications for the study of informality in firms. As respondents may be hesitant to admit their informal behavior, the full extent and strength of the informal organization may hardly be determinable. Consequently, indicators of possibly deterring mechanisms, such as the power of sanctions, monitoring efforts, etc., should be controlled for.

The students of informal organizations must further control for the firm’s size and maturity which influence the degree of (in-)formality in firms. Considering the establishment of a firm, an informal union of individuals at some point makes their cooperation official and formally founds a firm (Barnard, 1938). Consequently, it may take some time until the formal organization is developed out of the present informal one. A firm’s size and maturity determine the need for formalization which in turn generates the need for informal structures (Ho & Leversque, 2005; Cappelli & Neumark, 1999).

Another notion that was repeatedly used in this study needs to be clarified in more detail: consistency. Our understanding of firm functioning is that (a) formal and informal organizations are both necessary and that (b) if they both follow the same strategic orientation the firm’s goal will be reached (external influences ceteris paribus). On the other hand, studies have shown that inconsistency is valuable, too: it can lead to ambidextrous strategy pursuit (Gulati & Puranam, 2009) and to increased individual performance (Soda & Zaheer, 2012). The truth lies between these extremes. We said that the informal behavior resulting from the need to overcome partial inclusion can only administer the tension between formal demands and personal wants, not remove it (Katz & Kahn, 1966). Thus a certain degree of
inconsistency between the orientations of formal and informal organizations is inescapable. On the other hand, any major inconsistency between the strategic orientations of the two organizational forms in times of changes is only short-term because employees try (or are forced) to conform to the new formal requirements (Gulati & Puranam, 2009). On the individual level, more consistent formal and informal networks are pursued if one’s networks become too diverse and their coordination too stressful, as the beneficial outcomes of inconsistent networks vanish (Soda & Zaheer, 2012). Hence, the nature and quality of the informal organization infer a tense balance of (in-)consistency between formal and informal organizations.

There is another discrepancy in the literature on the informal organization that demands clarification: the awareness of managers about the informal organization. Some scholars claim that managers are not aware of it in their firms, or that managers intentionally deny its existence, especially its influence, because it undermines their power (Cross & Prusak, 2002; Barnard, 1938). This argumentation often serves to underline the necessity to study informal structures, e.g. by conducting network analyses (Tortoriello et al., 2012; Krackhardt & Hanson, 1993). On the other hand, scholars maintain that informal structures are used by managers themselves (Caimo & Lomi, 2015; Rogan & Mors, 2014; Soda & Zaheer, 2012; Chua et al., 2008; Barnard, 1938). Therefore, the assumption that managers lack knowledge about informal structures is too strong; rather, they are not aware of what is going on precisely, but they know that their subordinates use informal methods as much as they do.

Last, the informal organization must not be glorified – there are ways in which it can harm single individuals or organizational functioning. Negative effects of the informal organization occur when employees use its opportunities for their own benefits (Schilling & Fang, 2013). Also, beneficial interactions between formal and informal elements are eliminated if, to name only some examples, the hiring strategy is changed and new employees introduce other values
or do not act according to the established informal institutions. If there is organizational downsizing the prevalent informal institutions and informal social networks suffer from the reduced capacity of collective action and gaps in the networks (Doherty & Bowman, 1995). These influences can make the informal organization less effective.

For instance, being closely related to contacts who are secretly malevolent, less well-informed as claimed or (un-)intentionally guiding their contact into the wrong direction can have negative effects for the focal employee (Zenger et al., 2002). Also, when projects are started or fostered only on an informal basis, the lack of a formal contract creates problems in the project’s execution when partners deviate from the agreements or leave the firm (Doherty & Bowman, 1995). Moreover, if the principle of reciprocity is not respected by the majority of employees, the reliance on informal ties’ help might turn into a fragile house of cards (Cross & Sproull, 2004). In extreme cases, this can even lead to the failure of the firm’s hierarchical system when the costs of internal communication and coordination are higher than on the market (Zenger et al., 2002; Kogut & Zander, 1996). Further, the feeling of personal integrity, self-respect and independent choice (Barnard, 1938) may not only foster the employees’ identification with the firm. It may substitute the respective formal efforts such as of human resource and general management to motivate employees for collective efforts (McEvily et al., 2003; Podolny & Baron, 1997; Barnard, 1938), inferring costs and political frictions.

Size and form of negative influences of the informal organization depend on the firm’s situation and the margin between benefits and costs (additional to network maintenance costs; McEvily et al., 2003). In all, the informal organization should be handled with care – not only by managers and employees in practice, but in scientific examination. Ambiguous or premature conclusions can not only slow down the discovery of insights, but create misleading paths of study.
V. DISCUSSION

This study provided an extensive overview of the concept of the informal organization of firms. I conclude by summarizing the findings and discussing limitations and possible research endeavors.

V.1. Conclusion

The informal organization is a valuable part of firm operations. It comprises individual, personal relationships between employees that occur within and across hierarchical levels and departments and their voluntary interactions, including the exchange of informal social capital. This can lead to the autonomous defiance of formal rules and reporting ways in order to enhance individual and firm performance. These interactions go beyond doing someone mere favors, they constitute a meshwork of organizing work, sharing social capital and enhancing firm innovativeness. However, these activities can tip into negative results, for example if the advantages of informal organizational elements are used for the benefits of the actors only.

Formal and informal organizations are both indispensable for organizational functioning. While formal attributions of roles and duties are necessary to provide some focus on job fulfillment they in turn induce the need for informal activities of and between employees. Thus the formal organization creates the setting in which informal exchange originates, is fruitful and directed. Therefore, formal and informal organizations should be studied together.

The identification of all elements of the informal organization, i.e. the forms it takes, and their interrelations is a crucial step to compensate for this lack of knowledge, as it enables the thorough study of their interactions with formal organizational elements and advances organizational design research.

I have contributed to the research on informal organization in three ways. First, I provided a definition of the informal organization and consolidated views on its origins, forms and
consequences. The definition merges the prevalent understandings of the concept in research and acknowledges its social and organizational origins. Second, I examined the internal and external interrelations of the informal organization, namely between its elements and with the formal organization. A special focus was laid on its mostly positive influence on firm innovativeness: the informal organization can hinder formal efforts of increasing creativity and firm innovativeness, but mainly induces positive impulses to cross-departmental and -hierarchical exchanges, initiatives and, ultimately, projects. Further, the organizational climate supports these efforts by providing a common language and shared goals of the endeavors. These effects highlight the informal organization’s importance on firm operations and answer to the recent call of McEvily et al. (2014) and Soda and Zaheer (2012) for action in this area. Third, I critically assessed the concept. By acknowledging the complexity and multilayered nature of the concept, I pointed out difficulties in its understanding and study. Further, I lay out the negative aspects of the informal organization, which highlights the fine line between benefits and drawbacks of a strong informal organization and the need for management to control the structure and content of informal networks, a call that has existed in literature for some time (Krackhardt & Hanson, 1993). In all, my findings advance organizational design, management and innovation research by identifying the underlying mechanisms by which organizational operations are executed. The insights I provide also set a basis for more thorough theoretical and empirical examination of the informal organization itself, and specifically in interaction with the formal organization.

V.2. Limitations and Future Research

Despite these valuable findings, my study encompasses several limitations. While attempting to cover the complexity of informal organizations, I limited my view to traditional firms: manufacturers or service providers, banks or insurances whose employees gather in provided facilities and fulfill their roles during working hours. However, modern technologies have
created new forms of firms: digital companies that are vitalized by (voluntary) members working flexibly and, possibly, from any place, such as in Open Source Software development (Crowston et al., 2007). While these firms, or communities, lack a formal organization, they are characterized highly by volunteerism and therefore exist within a twilight area of organizational systems. They are an extreme form of self-organized teams and were thus excluded from this study. It would be, though, interesting to examine whether traits of the informal organization also occur in these forms of organizing, namely if the members face unfulfilled needs of the working system which they try to satisfy.

Second, my study takes on an overall view and does not take on an ego (i.e. single focal actor) or team perspective. By focusing on the mechanisms perceived by a single actor or in specific firms, one can go much more into detail of the interactions between formal and informal elements. This would also allow identifying specific tipping points when and how beneficial informal interactions turn to destructive ones. This is especially valuable when conditions such as firm size or the organizational form can be included in consideration. The perspective I took in this study serves to define the informal organization on an overall organizational level.

Neither have I extensively considered interorganizational informal relationships, i.e. with supplier firms (Brown & Duguid, 1991). Considering the scope of the paper and the logic of argumentation, I focused on internal processes and interactions only. Including interorganizational processes would broaden the knowledge on the interactions within formal and informal organizations because relationships with external contacts also influence internal processes.

My work has implications for future research. The consolidation of views on the origins and the provision of many forms and characteristics of the informal organization allows for their investigation in empirical research and to move away from descriptive approaches. This has
not been satisfactorily possible as long as there was no comprehensive picture of the elements of the informal organization. Additionally, scholars can apply the framework to investigate phenomena in various areas of research. In innovation research, for example, one can examine how differences between informal political and status systems and formal structures determine the innovative outputs of employees. Next to network positions also the informal influence employees have on resource distribution play a role in one’s innovativeness. Finally, the variety of critical features of the (examination of the) informal organization discussed above provide promising starting points to discover the concept more thoroughly.
REFERENCES


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