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THE LAS VEGAS CONNECTION: TRANS-INDUSTRY INTERDEPENDENCE
AMONG ORGANIZATIONS
AND ITS ORGANIZATIONAL AND STRATEGIC IMPLICATIONS

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“Ten years ago, McKinsey’s new hires were almost all MBAs; now over 40 percent are lawyers, doctors, scientists, military officers, or former government officials.”

Chambers et al. (1998)

1 Introduction

Today, we observe that many people who are employed in one industry come from very different educational or occupational backgrounds. It is not new that people could switch career lines (see for example *The Physics of Wall Street: A Brief History of Predicting the Unpredictable* by J.O. Weatherall, 2014), but it required excellence and high specificity to do so, if not to succeed. Now, with the world getting more and more connected and delocalized, people can apply their skills in many different industries. Meyer and Rowan (1977) state that “in modern societies, the elements of rationalized formal structure are deeply ingrained in, and reflect, widespread understandings of social reality.” Hence, if more people accept and live by the social reality of multi-applicability or transferability of skills, we should expect to observe the accommodation of this perspective in the organizations’ routines, or generally in their behaviors. Similarly, Meyer and Rowan (1977) support this claim by stating that “the myths of personnel services, for example, not only account for the rationality of employment practices but also indicate that personnel services are valuable to an organization. Employees, applicants, managers, trustees, and governmental agencies are predisposed to trust the hiring practices of organizations that follow legitimated procedures - such as equal opportunity programs, or personality testing - and they are more willing to participate in or to fund such organizations.” Indeed, we could argue that employing people coming from different background is sometimes even encouraged and praised as a novel perspective, harboring diversity and innovation (de Anca, 2016).

With this perspective in mind, we can ask several questions which I will attempt to explore in this paper: What consequent dynamics can we observe in the labor markets? How do organizations define their human capital pools? What are the competitive or cooperative consequences of sharing a human capital pool with a firm from another industry? Understanding these questions and their answers is important for several lines of research, such organizational theory, strategy and mobility. Following, I first summarize the strategy, and more specifically the strategic human capital/strategic human resource management (SHC/SHRM), literature on hiring and/or recruitment practices and their importance. As Cattani et al. (2017) advocate, “working at the intersection of economics and organizational theory, strategic management researchers seem especially primed to push forward with this multidisciplinary agenda.” As such, I aim at understanding the new practices and their consequences from the “first-person” point of view of the focal organization¹. As next, having identified the components, I argue that one of the main implications of such changes in hiring practices should be found in the interdependency structure between firms. Both resource dependence theory as well as the ecosystems approach in strategic management literature emphasize the management of interdependencies to achieve organizational goals (Adner, 2017; Jacobides et al. 2018). Meanwhile, from a socio-economic perspective, interdependencies of markets were acknowledged by H.C. White (2002) in product markets, operationalized through the substitutability of markets. Complementary to interdependence picture, stability of such connections also invoke categories, which eventually leads to organizational isomorphism (DiMaggio and Powell, 1983; Zuckerman, 1999). Hence, I will use these approaches to formulate a theory of expected emerging interdependence structures and hypotheses that follow from such a theory. After this, I propose a potential empirical method involving

¹Ann Swidler (1986) says that “culture influences action not by providing the ultimate values toward which action is oriented, but by shaping a repertoire or ‘tool kit’ of habits, skills, and styles from which people construct ‘strategies of action’.” Hence, using the strategic management culture while looking at organizational actions should not only familiarize us with the values and tool kits, but also guide the research agenda by focusing our attention in parallel.

where to look for data and how to test the hypotheses with such data. Finally, I discuss the implications of the theory and conclude with limitations, contributions and outlook.

2 Organization's Point of View

In strategic management field, human capital was acknowledged as a resource first by scholars of resource-based-view (RBV) of the firm (Barney 1991, Hall 1992). RBV as well as resource dependence theory (RDT) concerning power dynamics emphasize the importance of resources in determining respectively the competitive and exchange-based interdependence of firms on each other. For example, application of RBV perspective in competitive strategy has established that the “superiority of resources”, “ex-post limits to competition”, “imperfect resource mobility” and “ex-ante limits to competition” are required to sustain the competitive advantage (Peteraf 1993). Over time, RBV literature has also evolved into considering the interdependencies between firms as a source of competitive advantage (Dyer and Singh, 1998; Lavie 2006). As such, we observe a movement towards rather intangible resources than tangible ones. Meanwhile, we see the first emergence of the generalizable framework of RDT on the managerial stage in maintaining inputs, or simply securing critical resources coming from input markets (Pfeffer and Salancik, 2003). An important implication of the attempts to control the environment is the emergence of power dynamics, especially involving bargaining (In the context of international joint ventures, Inkpen and Beamish (1997) investigate role of bargaining in resource dependence).

Both of these frameworks have led to many works that shed light on behavior of firms, whether in terms of competition, growth or strategies in general. However, the social embeddedness of organizations not only at the organizational level but also at employee level should not be overseen. Especially when it comes to defining interdependencies, social and human capital as resources obtained from labor markets are one of the most important ones requiring closer investigation. As an initial criticism directed towards lack of social dimension in studies of the firms, Granovetter (1985) argues that none of the economic action is taken independent of the social context and emphasizes that it is the personal relationships that get jobs done and resolve conflicts, not hierarchies. In a more recent work, Felin et al. (2017) not only look at how to reinstate social dimension into organizational studies, but they define and analyze the notion of sociability to understand how firms can make use of it, especially when it comes to organizing the people outside of the organizations to achieve innovative developments. These works and many others signal the necessity to focus more on the factor of human capital and a look at interdependencies arising between firms.

While investigating human capital, we have to pay attention to human relations. Human relations approach in management has been around for a long time now, as it emerged as a movement against scientific management paradigm (Guillen, 1994). However for a long time, it stayed as personnel practices and its connection to the firm performance was not clear or not studied at all. Human resources literature has emerged in much later times, as a response to the mechanistic view of personnel research, and only late 1970s and early 1980s the field started exploring human resources from strategic perspective (Walker 1978; Devanna et al. 1999) according to Wright et al. (2001). Boxall and Purcell (2011) state that “strategic human resource management [SHRM] is concerned with the strategic choices associated with the organization of work and the use of labour in firms and with explaining why some firms manage them more effectively than the others.” A general overlook on SHRM shows that this literature has actually mostly concentrated on the practice itself as a unit of analysis but not on human capital as a strategic resource.

Nevertheless, the “five key aspects of the SHRM process that should be included in any model of SHRM” and the “four questions [which] appear to be especially significant” identified by Truss and Gratton (1994) offer us perspectives, some of which I would like to point out. First, the combination of

the three key aspects, “the external environment”, “business strategy” and “the internal environment” shows clearly that the mentality of HR departments span from inside of the company to the outside. This implies that practices will reflect the best intended matches between the internal and external environment to achieve successful outcomes, and most probably those that grant competitive advantage. This is also directly reflected in their question “What are the key internal and external contextual variables that affect the design and implementation of human resource strategies?” These works point at a complex task tackled by HR departments which has two important implications: 1) The HR departments, or more generally the firms, have to set deliberate strategic goals while engaging in HRM, and in this work here, this includes the choice of human resource pool. Such deliberate selection of recruitments clearly imply a matching process. 2) The pressures of efficiency and effectiveness require routinization. A well-built HRM procedure with well-defined goals would lead to imprints in the organizational structure.

3 Moving towards Individual’s Point of View

The field of strategic management that focused on the characteristics of human capital as a resource is the strategic human capital (SHC), which lies in the middle ground between RBV and SHRM. In SHRM, we observe a concentration on HR practices, which are undertaken inside the firm and concerns how these practices combine with the rest of the firm. On the other hand, RBV was limited in its treatment of human capital just as any other resource, which was clearly not the case. SHC became a bridge between the two areas: Instead of focusing on practices and how an HR department should behave, it looks at a bigger picture by involving competition between firms for human capital, the mobility of human capital and many connections with corporate strategy and others. Such an approach at the same time complements the lack of “human factor” in RBV. Coff (1997) makes the following statement in the beginning of his work, underlining the uniqueness of human resources compared to other assets: “Like human assets, an oil field may be a strategic asset. However, once acquired, an oil field 1. Cannot quit and move to a competing firm. 2. Cannot demand higher or more equitable wages. 3. Cannot reject the firm’s authority or be unmotivated. 4. Need not be satisfied with supervision, coworkers, or advancement opportunities.” Especially, the first and second points are relevant to the work here. The first item emphasizes the potential mobility of the asset, and here, I expand this by suggesting that individual doesn’t have to go to the competitor. The second item furthermore underlines the bargaining that takes place between employees and employers².

In a later work, Campbell et al. (2012), investigate the implications of the uniqueness of human capital and suggest that the implications following from RBV perspective will not hold, or at least have to be rethought. By developing the earlier theory, they propose an important framework for SHC involving the concepts of fungibility (firm specificity, or exchange value), constraints imposed by firms demanding labor and constraints faced by individuals supplying labor. The interaction of these terms has shown counterintuitive results (Campbell et al. 2012). While firm-specificity is thought to be a source of competitive advantage from classical perspective, we see a different picture, when the individuals are facing high constraints in labor markets rooted in demand or supply side. As an example of supply side constraints is mobility costs: “Search, bargaining and switching costs hinder employee mobility because it is often costly for workers to search for alternative jobs, negotiate with their current employers, or switch to new jobs.” (Campbell et al. 2012) Hence, from individuals’ side, we see a similar picture to that on the HR side, namely process of problemistic search (Cyert and March, 1963; Simon and March, 1976). The outcomes of search from both sides as well as the costs associated with it is well studied by

²These two items combined lead to a complex problem from the point of view of HRM. If there is no pressure of competition, why should HR departments compete for human capital that will bargain back, maybe even more strongly the individuals committed to the same industry? This mechanism can be explored in the future.

economists in job matching literature and a direct contribution to this literature is not intended in this work. I use this mechanism rather as a basis for my theory development and empirical method explained later. When we focus on studies concerning trans-industry connections from the field of SHC, keeping these frameworks in mind, we see that the concentration has been mainly on wages of the employees and on economic or legal antecedents to cross-industry movements and on switchings away but not to where (Neal 1995, Balasubramanian et al. 2017, Simeth and Muhammadi 2017, Starr et al. 2017). This poses a literature gap on longitudinal firm level trans-industry connections, which will be explored in this study. On the other hand, existence of such work verifies that the industry switchings happen and necessarily mobility patterns connecting firms in different industries indeed occur.

4 Observer’s Point of View: Macro-level Outcomes

The first implication of the consolidation of these perspectives is that we observe the emergence of a category in the labor market as well as in organizational level. Zuckerman (1999) shows empirically the importance of categories and “the illegitimacy discount” that follows from exclusion from them. He brings different notions together, which serve as important mechanisms here: Referring to Meyer and Rowan (1977) and DiMaggio and Powell (1983), Zuckerman states that “the threat of being denied legitimate standing in turn induces organizations to adopt accepted procedures” and that “organizational variety decreases accordingly.” Hence, he introduces organizational isomorphism resulting from membership in the same category. The discussion of “the candidate-audience interface” in his work considers the process as one way. In a job-matching process, I suggest that individuals are candidates to firms as well as audiences that assess the firms, which still does not exclude the role of third parties. Following this mechanism, persisting trans-industry patterns of job-matching means that stable categories have emerged on both sides; especially on organizational level, belonging to these categories will lead to organizational isomorphism, a consequence which is hypothesized later. Moreover, Zuckerman further points at “White’s image of production markets as self-reproducing role structures [which hinge] on producers’ continuing conformity with recognized ‘schedules’ of cost-quality niches.” Next to the cost-quality niches established through signaling processes, there are two other important perspectives to be obtained from White (2004): First, he describes the Las Vegas paradigm. Referring to the gambling casinos on the Las Vegas Strip, he offers a new perspective by suggesting “Let gamblers be the producer firms. Endless rivalries among pairs of them are transformed into a duel of each with the gambling house in some games requiring skill. The individual house is now taken as the market, rather than being a producer firm as in the previous chapter’s section on the Las Vegas Strip” (White, 2004, pp. 136). The dealers in the house form an aggregate buyer, buying volumes of hours and level of bets from the producing gamblers. From gambler’s point of view, each house represents “a profile of trade-offs [...] observed across the presences adopted by fellow gamblers.” The parallel to Campbell et al.’s (2012) perspective of seeing individuals as labor suppliers and firms as buyers can be seen, however it is not exact.

In a similar fashion, I turn the scope from categories in product markets (whether referring to White, 2002, or Cattani et al. 2017) to categories in labor market: The individuals are the producers of time and labor, and each firm constitutes a market, where the managers and corresponding HR recruitment practices build up the buyers. The corresponding formal recruiting positions (HR, middle or top management) in the firms and the firms themselves provide the “self-reproducing role structures” (Zuckerman 1999) as buyers and the market respectively. Second, in chapter 6 one of the sections (pp.128) “[specifies] indirect interactions among markets that are cousins within a sector, neither buyers nor suppliers to each other, but instead parallel.” To do this, he introduces the parameter γ quantifying the substitutability and he further states that “the substitutabilities between distinct markets can be approximated as the obverse of the intramarket substitutability, but note that markets are not arrayed along any index of quality.”

Here, I suggest that “the sector”, within which the markets are cousins, is the sought category in labor markets, that can transverse many industries which are the subject of “Categories and Competition” by Cattani et al. (2017). In contrast to Campbell et al. (2012), who categorize firms as buyers of labor and individuals as producers of labor, this picture leads to a more accurate picture for trans-industry study: Firms belonging to different industries can be at best seen as substitutes that can not be ranked. “The obverse of intramarket substitutability” allows the inclusion of the inner structure of the firm in terms of what it offers regarding practices aimed at retention, motivation and many others that are reflected in the signals and organizational structures. This can be especially turned into the relative bargaining power of one firm over another one in another industry, hence into “market” substitutability. As the notion of membership in trans-industry categories as well as trans-industry bargaining (or competition) relations become simultaneously clear in the setting of Las Vegas paradigm, I prefer to call the entirety of such trans-industry interdependences the Las Vegas connection.

5 Hypotheses

So far, Las Vegas connection is formulated in terms of interdependencies through category memberships and the necessity of having bargaining power to overcome the threat of substitution, eventually to capture labor producers. In this work, I focus on the consequences of category membership and of the corresponding contingencies on organizational level outcomes and leave the discussion of bargaining power to later studies. The signaling theory found in economics, strategic management and organization theory was first studied in labor markets by Spence (1974). Such a fundamental theory discovered in labor markets is still prevalent and builds the foundations of the matching process. In the labor markets, employees and employers have to deal with noisy and low quality signals most of the time. To tackle this problem, they try to develop new signals constantly. This development will, however, depend on who is creating this signal for whom. A signal that cannot be received by the correct audience will not be useful. Hence, the firms that look for similar talents will necessarily have to stay in the boundaries of similar signaling structures, while optimally differentiating themselves from others. From this, it follows that the recruitment practices spanning from image management to screening routines will have to be compatible with these signals. As an example, Suarez et al. (2009) look at new ways of using signaling practices to not only make legal contracts in recruitment but also psychological ones. They give the examples of positive “employee testimonials”, “signing bonuses” and “relocation expenses paid by the organization” as signaling job stability and security. Hence, some ways of operationalizing this can be job descriptions as well as employee testimonials. Another could be following the recruitment events of different organizations and determine their overlap. In short, due to the severe conditions in the signaling environment, firms will adjust their signals accordingly and it is expected that

H1: *Firms that are from different industries and have overlapping human capital pool will be signaling similarly and will differ from the rest of the signals sent out by the firms in their corresponding industries.*

While compatibility of signaling with the internal structure is important, the SHRM literature shows that the rest of the internal human resource management will also align with the corresponding external environment (Truss and Gratton, 1994). For example, not only SHRM but also SHC literature emphasizes the importance of retention; Boxall and Purcell (2011) state that “the problem of retention of key workers began to stand out as a common problem in the 1990s and continues as a serious issue in the first decade of the twenty-first century.” (pp. 48) Retention involves all parts of a firm, from motivational incentives (such as salaries, promotion opportunities or job stability) to organizational structure (decentralized decision-making and job rotations). On a similar note, Meyer (1979) treats organizational

structure as a signal itself: “Organizational structure may be used to signal intentions, both internally and externally. Change of structure is a means through which organizations communicate policy and strategy both to their own members and to others.” He further justifies this analogy by saying that “signaling by announcement is too cheap and likely to be discredited. It is simply not enough to say that an organization intends to do something without putting resources behind the effort.” Hence, it is expected that

H2: Firms that are from different industries and have overlapping human capital pool will have more similar organizational structures involving incentives, internal labor markets, compensation systems and organizational design.

Organizations’ identities and structures depend highly on those of its members. Hence, through a matching process, we would expect that organizations to be looking for the people who fit their profile, their identities, in a sociopolitical way (Celani and Singh, 2011). Especially, when we consider social movements, this matching becomes even more important, as well as restrictive due to crisp categorizing nature of the movement. Davis et al. (2008) acknowledge this by stating that “social movements are pervasive in and around organizations, from policing the actions of multinationals to advancing demands for workplace rights to promoting or thwarting the development of new technologies to demanding that corporations fess up to negligence. [...] Some corporations respond to pressures by social movements by changing their strategies, structures, and routines.” Hence, in this work where we are looking at the social connections between two firms through labor markets, social movements and corporate social responsibility play an important moderating role. When the organizations commit to a corporate social responsibility (CSR) goal or when they actively express in their business model that their business is strongly connected to a social movement, we would expect that the firms look for people who also committed to this movement, at least if not against it. One direct evidence is seen when firms commit to defending and improving minority rights and decreasing the job opportunity inequality; such organizations intentionally limit their human capital pool and necessarily increase the likelihood of sharing this pool with a firm from another industry which commits to the same social movement. On a similar tone, Marquis et al. (2007) argue for community isomorphism, which is a mechanism to explain why corporations engage in social action, pointing at the institutional effects of committing to a community with social opinions. Turban and Greene (1997) not only argue similarly, but also state that organizations can attract higher quality employees by committing to social actions. Hence, we have higher pressures from both sides in the matching process, and

MH1: As a moderating factor, the extent of commitment to CSR or identification with a social movement should lead to a higher interdependency between those two.

Data-driven management and decision making is becoming an important part of the firms and have concrete implications on performance (Brynjolfsson et al. 2011). However, this requires data scientists and analysts that not necessarily have skills that are specialized to their firms. These individuals naturally belong to generalized human capital pools and they are not only expected to be more mobile, but also more in demand by the companies with the rise of big data and data analytics. In this situation, it is much more likely that data scientists and analysts will navigate across the borders of industries. Data analysis is only one aspect of methodological skills that are technical as well as applicable in different contexts. Although personal skills count as transferable skills and their role is very important in recruitment process, the influence of transferable skills, which are money and time-wise more costly to obtain, are expected to strengthen the interdependencies. For this paper, I limit the hypothesis to knowledge processing industries, which is not necessarily limiting the extent of the theory. Hence, I hypothesize that

MH2: Firms that are in separate knowledge intense industries competing for similar human capital will

have higher interdependency.

6 Empirical Method

6.1 Model Variables

A complete research regarding these interdependencies requires several multi-level methodologies spanning from qualitative to quantitative ones. First, as we speak of human capital, we have to include the micro-level analysis in the research. In this level, we would include background data, such as what the employees have studied, where did they come from and such. Moreover, individuals in the labor market face a general search problem; people have to solve an unemployment issue through a problemistic search process, and one way of achieving their goals, such as employment in a firm of interest (hence their industry of interest), can be captured through surveys. Alternatively, longitudinal mobility data could be used as a proxy to obtain such information on individuals. Individuals will reveal their preferences over time and, assuming they have enough opportunities to join several firms in different industries, we can categorize the individuals into certain human capital pools. For example, if we observe an individual switching jobs only in law sector throughout his/her career, we can clearly say this individual is specific to this industry. On the other hand, an individual which switches jobs from, say, a car manufacturer to an airplane manufacturer and then to a construction firm is a generalized human capital. Individuals such as the latter one are expected to form a group, a strategic human capital pool, which is tapped into by some certain firms belonging to different industries. However, a caveat for using mobility data is that fact that the data reflect only realized outcomes not the intended ones, which would be ideally complemented with surveys.

This issue takes us to the next level of analysis, namely the organizational level. Mobility data would not only include the outcomes of the individual level goals but also those at the organizational level, as it is a matching process. First, in order to understand the goals of organizations as a whole, survey data can be collected from human resource departments as well as from managers in middle and top levels; hence a qualitative approach will be the most suitable way to understand the goals of the organizations, when they engage in such practices. On a more quantitative basis, extensive data on organizations is required next to the standard ones, such as size counted as employee number, return on assets and many others. Organizational data is required by hypotheses 1, 2 and moderating hypothesis 1. Content analysis of public announcements or job descriptions would serve as independent variables for H1. Similarly, the content analysis of official forms (for example 10K annual reports or DEF 14A proxy statements submitted to SEC in USA) as well as any other information on organizational structure that can be obtained about the firms can be used as independent variables and would allow us to test H2. Finally, public announcements, the company descriptions found in 10K forms and media content can be used as independent variables and provide information on social movement commitment of the firms, and eventually test MH1. Finally, to test MH2, industry-level analysis is necessary. Membership to an industry can be determined through the official filings of the companies as well as, for those covered by media, through the context analysis of the news which covers them. In this context, an issue arises due to diversified firms which are difficult to allocate into a single industry; however, this can be resolved by focusing on divisions in these firms rather than whole firm level. As, at this stage, we are not concerned with the performance measurements, this approach should succeed to identify the hypothesized relationships.

Overall, the dependent variable is the likelihood of having a trans-industry connection, which is operationalized below.

6.2 Method

While data is collected in many levels and qualitative and quantitative methods should be obtained to have a complete picture of the mechanisms at hand, our interest is mainly on firm level. We use the mobility patterns to reveal persisting trans-industry connections in the labor market. Hence, I propose to study these connections in two stages. First, the strategic human capital pools should be categorized. These would be those individuals who have similar patterns of mobility between firms as well as through industry boundaries. This is a direct measure of “realized” categories emerging through recruitment practices of the firms. In contrast to Cattani et al. (2017), where categories emerge in product markets where tracking buyers is difficult to observe emergence of categories, mobility networks are relatively more accessible in the labor market and allows us to observe persistent categories of recruitment. The next stage would involve measuring which firms depend on each other through membership in the same strategic human capital pool. There are two options to follow to do this. First, through multinomial logistic regression, we can test how the independent variables presented in the previous subsection moderate the amount of trans-industry connections. Alternatively, when matching is prevalent, we can turn to the method developed and applied by Mindruta (2013), Mindruta et al. (2016) and Chatain and Mindruta (2017). In alliance networks and client-firm networks, the matching method is applied successfully based on the principle of “no good deal comes undone” leading to revealed preferences (Chatain and Mindruta, 2017), aligned with the argumentation presented in the previous subsections. Similarly, we can observe an indirect matching process of firms with each other through category memberships. As I propose that these firms will be more similar in their public appearing, organizational structure and even more given their corresponding membership in social movements and knowledge/service intensive industry memberships, the objective function emerges as a homophilious function, measuring the similarity between the firms to predict matching between organizations. As such, mainly methods tailored for categorization and matching processes would be ideal for this study.

6.3 Data

These methods require obtaining universal employment data matching employees to employers at least bounded by country. Moreover, there is no reason to assume that employee mobility will differentiate between private and public firms, potentially limiting availability of data on firm level. Chen et al. (2017) utilize LinkedIn data in their work to determine in-house tax practices, where they collect employee-level data and combine it with firm-level data. Such a combination is highly powerful for human capital research as well as for strategy and competition. Similarly, Breschi, Cirillo and Tzabbar (work in progress) utilize LinkedIn data to map collaboration and knowledge networks in Intel and connect it to mobility. LinkedIn data is powerful in two aspects. First, its coverage of employees is very high, especially in USA, where the corresponding firm level forms (10K and DEF 14A) can be collected for public firms. Statista shows that the total amount of LinkedIn users in 2016 was around 128,000,000³, while also showing that the amount of full-time employees were 123,000,000⁴. Hence, we probably not only capture most of the full-time employees, but also some of the unemployed (Statista shows 4,9% unemployment rate for USA in 2016, leading to 16,000,000 unemployed individuals⁵). As we need longitudinal data to uncover persistent human capital pools, the persistence of these statistics have to be checked going back and forward in time as well.

Second, LinkedIn has not only individual level data, such as background and information on past employment, but also firm level data through categorization of employees by firm name, some of which

³<https://www.statista.com/statistics/272783/linkedins-membership-worldwide-by-country/>

⁴<https://www.statista.com/statistics/192356/number-of-full-time-employees-in-the-usa-since-1990/>

⁵<https://www.statista.com/statistics/193290/unemployment-rate-in-the-usa-since-1990/>

also offer information about the firm. While accessibility of such data is open to discussion⁶, some other employment data on country level could be sought from government offices as well, which could be just as inaccessible⁷. Further investigation into works published in Journal of Labor Economics could be also helpful to pinpoint a corresponding data. Firm level and industry level data are discussed in the section Model Variables, and at least for USA, EDGAR database as well as NAICS and/or SIC codes can be used for such data collection.

7 Discussion, Conclusion and Limitations

The importance of recruitment is acknowledged by many audiences with different perspectives, ranging from SHRM to economics. A striking example of how excellence in overcoming labor market frictions was revealed in 2003 by Michael Lewis in his book “Moneyball” (Lewis, 2004). While the book attracted many negative reactions, later econometric analysis proved the controversial suggestions (Hakes and Sauer, 2006): The baseball team Oakland Athletics consistently maintained its top position in the league, despite the fact that it paid below average salaries to its players if not the least. If that is not competitive advantage, then what is? This was achieved by a completely unique assessment of player quality by Oakland as opposed to the rest of the teams. Another example of HR strategy success story belongs to People Express Airlines; unlike any other airline, they recruited people from different sectors that were not unionized and they engaged in high levels of job rotation (Eisenmann and Barley, 2012). Not only the literature but also practitioners acknowledge the fundamental importance of recruitment process. But how about its organizational level outcomes?

While this question has been one of the subjects studied by SHC and SHRM, it has not been explored when the recruitment practices transverse industries. In this work, we took a first look at this process. First the firm level considerations were taken into account, highlighting the depth to which these consideration affect them at an organizational level. As next, the framework involving both the labor market dynamics and the individuals’ attributes is introduced from SHC literature, which leads to identification of a job-matching process as well as how general human capital (individuals transversing industries) can be of advantage to the recruiting firms. The works in SHC literature have also detected such trans-industry movements, but did not analyze their consequences, posing a literature gap that I tried to address in this work. To tackle the literature gap, Zuckerman’s (1999) arguments for illegitimacy discount and White’s (2004) Las Vegas paradigm were utilized to build a theory to approach the following consequences. Las Vegas connection was characterized as the trans-industry connection mediating a category membership, leading to substitutional interdependencies and the necessity of bargaining power correspondingly. The work focused on the organizational isomorphism and tried to investigate some contingencies leading to attenuation or amplification of the effects.

This work contributes to several literatures. Primary contribution is to organization theory through the investigation of organizational isomorphism. Similar to previous social network research, which investigated the social networks’ influence on organizational practice or structure adoption, I also base the mediator of the organizational isomorphism on social networks, more specifically mobility. However, in social diffusion theory we encounter well-defined fields, where adoption or diffusion of practices are mediated through professional networks such as board interlocks as mediator of golden parachutes or poison pills (Davis and Greve, 1997), or diffusion of governance practices in Canadian firms again through board interlocks (Shipilov et al., 2010). This work differs in two aspects from the cited ones: 1) Mobility requires leaving of one firm to join the other. The board directors are not mobile, hence greatly increase the likelihood of knowledge transmission. In case of a network diffusion built through Las Vegas connections,

⁶<https://www.tripwire.com/state-of-security/featured/hq-v-linkedin-controls-publicly-available-data/>

⁷See the case of Denmark’s country level data: <https://www.dst.dk/en/Statistik/emner/arbejde-indkomst-og-formue>

we not necessarily require a knowledge transmission yet still organizational diffusion. In these terms, this would also point at diffusion of institutional logics (in this case hiring practices) not due to adoption of a part of it through the network as in Shipilov et al. (2010), but through a two-step matching process. 2) Depicting the Las Vegas connection network as a two mode network, where organizations are connected with relatively crisply defined categories in labor markets and vice versa, we allow labor market to leak social movements into the network of organizations. This also addresses the work by Davis et al. (2008), by pinpointing network actors as the entry points of social movements influencing organizational structures.

Second, the work contributes to the mobility research through consideration of mobility between industries. A general look at the mobility literature uncovers a missing line of research on interindustry mobility and its consequences. This might have two reasons: A theoretical reason could be that the interaction of an individual joining firms in different industries might be defined unclearly. A scientist working at a car manufacturing firm and then switching to a consulting firm poses several interpretative problems on micro-level. Second one is the clear lack of data through industries and inaccessibility of a universal one. As time progresses, the empirical data might become available or some opportunities might appear. For example, the decision of the trial on web-scraping LinkedIn data could play a crucial role in enabling social media data. The solution of the theoretical concern, meanwhile, requires abundance of interindustry data which would allow exploration. In this work, I mainly focused on the consequences of the matching process. The mutual search, sense-making and eventually matching process by individuals and firms will in average necessarily lead to some sort of a mirroring behavior⁸ to be successful. This matching process driven by signaling can also be described by White's (2004) "one-way mirror" turned upstream, where "the set of [buyers'] commitments fills out and sustains the one-way mirror. This is a special window through which the [buyers] cannot see miscellaneous [producers], even though these [producers] can see the [buyers]." As in our model, producers are individuals in the labor market and buyers are the employees of the firms, who adjust their positions according to the signals. Hence, facing the same aggregate producers (individuals), buyers (internal structure of the firms) would adjust themselves accordingly even through different industries. However, future work has to look deeper into the mechanisms of how this could work.

Furthermore, this work brings categories research and RBV research together by turning the earlier category based works aimed at defining competition towards resources, more specifically the intangible ones. While the intangible resources are acknowledged by the scholars, the problem of their identification and the consequences of resulting categories are not well studied. Regarding competitive markets, Cattani et al. (2017) conclude in their work that "competitive categorization processes are fundamental to differentiated markets. They are so fundamental that categories are sometimes pushed to the background in research on markets as taken-for-granted assumptions when modelling competitive processes and outcomes. But assuming away market categories can only be taken so far". Using the emergence of minivan product category in a more general vehicles market as an exemplary empirical analysis, the authors present how scholars of economics, organization theory and strategy management study the rise of competition and corresponding product market category. Here, I proposed to turn their scope from product markets to strategic factor markets, more specifically to the strategic human capital in the labor market. While product market categories might explain some of the competitive interdependencies, we have yet to explore the influence of competition in labor markets and the corresponding categories that emerge on firm-level as well as on labor market level.

Finally, a rising area in competitive strategy, the ecosystems approach, sets interdependencies between suppliers, complementarities and customers at the center of their analysis and unite them under a common value proposition (Adner, 2017). Although till now the Las Vegas connection was presented as

⁸Like a synchronized dance to realize a job match...

a competition for required talent, from ecosystems perspective, we can interestingly suggest otherwise. Ecosystems suggest that it is the interdependency and its extent that firms should manage when they attempt at achieving any goal. From this perspective, the interdependencies are not seen as sources of risk and opportunism, but as a competitive advantage that can be leveraged if managed correctly (Jacobides et al. 2018). Similarly, Las Vegas connection can be (and probably should be) leveraged by firms that do not compete directly in the same product markets (or industry). Hence, the conversion of bargaining power and substitutability can be converted into a synergy between two firms. As an example, would consulting firms benefit more in the long run if they secure common human capital pool against banks, or would they block the transfer of valuable knowledge achieved through the connection. Such a perspective can shed light on the long-run complementary side of the Las Vegas connection rather than its temporal substitutional effects.

This work clearly has several limitations. Being a first look, aiming at revealing trans-industry interdependencies, the theoretical implications are very broad and, in some cases such as bargaining mechanisms, shortcoming. The micro-level foundations constitute a missing piece in the literature, which makes it difficult to create a robust theory of how these mobility networks would function. An exploratory micro-level work is certainly necessary. On the empirical side, the biggest challenge is posed by data accessibility, or maybe even existence. Mobility research has collected many micro-level data and organization theorists many organizational level data, but both are limited by industries or some other categorization that does not capture universe of organizations or the full extent of mobility networks. The accessibility is mostly challenged by the requirement of having at least country level data as well as organizational data on private firms.

8 Outlook

In my opinion, management of human capital and of the arising interdependencies will play a crucial role in the future. In 2016, the World Economic Forum's theme was "Mastering the Fourth Industrial Revolution". Among many other developments, the most controversial component of the fourth industrial revolution is the fear of artificial intelligence (AI) at worst taking over the world, at best taking over jobs. First of all, the fear of people losing their jobs is not new. This was experienced more than hundred years ago before the Second Industrial Revolution and Taylor (1914) made an interesting point about it in aftermath: "Just what follows in every industry when any labor-saving device is introduced. [...] In 1840 there were 5,000 weavers in Manchester. Now there are 265,000. [...] Has the introduction of labor-saving machinery [...] thrown men out of work?" He follows this by saying that "(In) 1840 cotton goods were a luxury to be worn only by rich people [...] now every man, woman and child all over the world wears cotton goods as a daily necessity." There are three take-away from these, some of which underline the importance of the recruitment related research and their consequences: 1) AI is an advanced machine that can replace routinized thinking processes and will most likely replace many jobs, just as manufacturing machines routinized mechanical jobs. 2) Mankind will create the next frontier of jobs; when automatization emerged, scientific management and the multiunit business enterprise emerged. We will find the next mode of working, next way of management as we scale up our productions, in this century optimally designed by AIs. 3) Next frontier jobs will lead to such a wealth that whatever is the equivalent of cotton goods of 1840s will be used by the rest of the world easily in the future.

Where does this work stand? Although social components of the organizations have been always there, the goals were mostly efficiency oriented. Today, we observe a competitor against efficiency as a goal; it is the social goals that are replacing higher economic returns. Social impact investments become a big part

of financial activities⁹, while investors demand more social actions from corporations¹⁰. A movement of social management could emerge, where innovation and cross-industry collaborations arise. The firms that cannot manage the interdependencies emerging from social foundations might lose their advantage. Hence, recruitment and subsequent practices regarding human capital management stand right at the frontier where the next wealth creation practices will be determined. Going towards a mindset of socially shared production (for example platforms, open sources and crypto-movement), interdependencies managed by human resources as well as managers will be of utmost importance.

9 References

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⁹<https://www.ft.com/content/45feb534-300d-11e8-ac48-10c6fdc22f03>

¹⁰<https://www.ft.com/content/483a6122-1e33-11e8-aaca-4574d7dabfb6>

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