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# The Organizational Magnetization and Innovation: A Case Study on MNCs in China

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#### **Abstract**

Several studies indicated that social capital and human capital could influence innovation, however, the detailed relationship between them and innovation is still under-researched (Akhavan & Mahdi Hosseini, 2016). In this proposal, we define organizational magnetization, which provides an aspect of mutual influence within social capital and human capital, thus impact on innovation. Also, This proposal aims to focus their relationship in the Asia context (MNCs in China), which could provide a perspective for promoting innovation by modifying the social/human capital of the organizations.

### **Keywords**

Asia HRM; Organizational Behavior; Innovation; MNCs in China; China HRM; Organizational Management; Asia Management.

#### 1. Literature Review

China is a fast-developing country and with great potential for investing (Tsui & Wong, 2010). It is the most popular foreign direct investment (FDI) destination after the economic reform. And FDI plays a significance in China's overall economy. The number of foreign-invested companies grew rapidly since these years (LIU, 2019). Also, these Multinational Corporations (MNCs) account for a high rate in the Chinese market. Different from creativity, innovation focused on the implementation of new measures, ideas, and methods in the working spaces, business practices, and external environment (Tushman & Nadler, 1986). Innovation could sustain the companies' competencies and leading role in the market (Solow, 1957). From these viewpoints, innovation has a significant impact on business.

## 2. Investment in Human capital

The impact of human power could promote innovation, at the same time, the experts could bring experience and knowledge for the companies to raise innovative capabilities (Ge, Huang, & Png, 2016; Romijn & Albaladejo, 2002). Human capital is regarded as skills and knowledge, which could enhance productivity (Coleman, 1988; Snell & Dean Jr, 1992). The higher human capital could result in more desired outcomes (Van Minh, Badir, Quang, & Afsar, 2017). Investment on Human capital, which refers to training that could increase the individual's abilities (Collins & Clark, 2003). The training on employees' expertise is a prediction on firms' innovative performance (Fulmer, Gerhart, & Scott, 2003). However, there are still some research gaps. Whether the investment in human capital such as increasing training on personal abilities could promote innovation is still under-researched (Sung & Choi, 2014). Also, how the investment of human capital enhances innovation at the organizational level is still a black box.

## 3. Social capital

Also, the group culture and the work situation still have an impact on sustain innovation (Longo & Narduzzo, 2017). Social capital consists of the upsurge of the economic, cultural, and social

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capital, which could have an impact on shaping the human actions (Bourdieu, 1986). MNCs are organizations with internal teamwork, the social capital within team corporation have a huge complexion. The team members come from different regions, which distinguish them from languages and culture (Reinhardt, 2019). Some studies concluded that social capital included several dimensions such as relational, structural, and cognitive (Nahapiet & Ghoshal, 1998). Some researchers pointed out that the networks from individuals or social units could increase knowledge generation and promote innovation from the organizational level (Parker, Halgin, & Borgatti, 2016). Also, Some scholars raised the importance of deep research on the relationship between innovation and structural social capital (Akhavan & Mahdi Hosseini, 2016).

As for structural social capital, though it has many definitions, it could be defined as the networks, relationships, and ties in work teams, which is filtered for raising the advantages for MNCs (Adler & Kwon, 2002; Ali-Hassan, Nevo, & Wade, 2015). To specify, the structural social capital referred to as the network ties enable team members to have a tight association within the team (Akhayan & Mahdi Hosseini, 2016). Time is an essential factor to sustain network ties (Hu & Randel, 2014). MNCs consists of complex team structures, and the concept of teams could represent the social structural capital in MNCs (Colombo & Rabbiosi, 2014; Hu & Randel, 2014). As for work teams in MNCs, some researchers found that the communities of practice (COP) could enhance the innovation, for example, the inter- and intra-work teams or any type of group. Also, they pointed out the research gap still existed, a wide population in the company should be involved in collecting the views rather than just managers (Pattinson & Preece, 2014). As for relational social capital, it is formed by relationships and behaviors as levers (Ahn & Kim, 2017). It refers to trust, participation, norms, and obligations (Vallejos, Macke, Olea, & Toss, 2008). For the cognitive dimension, it is the resources that represent the shared narratives, shared codes, interpretations, and shared visions (Vallejos et al., 2008). From these previous studies, we defined the networks as the structural social capital variable, trust as the relational social capital variable, and shared narratives as the cognitive dimensional variable in our proposal. Also, some studies stated that it is significant to explore the relationship between social capital and innovation in different contexts and organizations (Filieri & McLeay, 2014).

#### 4. The theoretical foundation

Some researchers pointed out that social networks indeed could promote investment in human abilities to create new knowledge thus enhancing innovation (van Reijsen, Helms, Batenburg, & Foorthuis, 2015). The structural social capital in the teamwork in MNCs could sustain sharing knowledge with team members by producing such a social environment, thus promoting innovation in MNCs (Inkpen & Tsang, 2005; Simonacci, Bertozzi, Grieco, Grignaffini, & Raposio, 2017). At the same time, investment in human capital could engage individuals in more organizational networks (Allen, Shore, & Griffeth, 2003). However, the inter-relationships between social and human capital are crucial for a firm's strategy (Nahapiet & Ghoshal, 1998). From human capital and social capital theory, we expect to investigate how the investment in human capital and social capital dimensions mutual interact, thus promoting innovation. We define this situation as organizational magnetization. Human capital and social capital are two magnetic poles. Their mutual influence will increase or decrease the intensity of the magnetic field. This magnetic field can be called a magnetized structural hole. Social capital combined the trust, networks, and norms within the organizations, which could enable the team members to share the knowledge efficiently (Inkpen & Tsang, 2005). Knowledge sharing during this process could be regarded as the basis of innovation (Nonaka & Takeuchi, 1995). Structural social capital could have an impact on knowledge transfer thus promoting innovation (Akhavan &

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Mahdi Hosseini, 2016). So this study also provides a perspective of knowledge sharing that how the magnetized structural hole promotes innovation.

The cruciality of this proposal is to grow a deep understanding of the mutual relationship between social capital and human capital. Also, we define a new concept as "organizational magnetization." We will prove whether it has a "1+1>2" impact on innovation in MCNs in China, thus make the companies more competitive. We provide a perspective of mutually reinforcing for further research.

## 5. Hypothesis

Network. Motivation is very crucial for network interaction (Pandey & Dutta, 2013). Training among the employees raised their motivation to participate in the activities thus increase the performance (Boon, Eckardt, Lepak, & Boselie, 2018). Also, we can assume that the tight network increases the frequency of training opportunities. Based on this, we proposed:

H1: Investment in human capital will enhance the structural social capital on the network in turn increase the investment in human capital.

Trust. Tight interaction between employees will promote mutual trust among employees. As a result, the training of employees provides more possibility for interacting thus enhancing mutual trust (Whitener, Brodt, Korsgaard, & Werner, 1998). The close interaction will also infect the trust formation (Lerro et al., 2014). We conjecture that trust will make the employees more willing to participate in training. So we make the following hypothesis:

H2: Investment in human capital will enhance the relational social capital on trust in turn increase the investment in human capital.

Shared narratives. The members of the organization will be loyal to the community if they receive more cares (Shore & Wayne, 1993), through training, this interaction could spark the shared narratives (Reiche, Harzing, & Pudelko, 2017). Members reach consensus through interaction, uniforms their sharing narratives (Burgers & Covin, 2016).

H3: Investment in human capital will enhance the cognitive social capital on shared narratives in turn increase the investment in human capital

Structural hole and innovation. The corporation in social networks could sustain the exchange, thus generating new knowledge (Hau, Kim, Lee, & Kim, 2013). The recombination and creation of knowledge could connect the ideas in novel ways (Roy & Sarkar, 2016). We expect to explore how the structural, relational, cognitive social capital enhances innovation through sparking knowledge sharing and transfer aspect. Organizing the activities regularly to tight the network, is a strong weapon to let people in the community be aware of the importance of sharing narratives (Von Krogh, 1998). Activities for tightening the network could gather the people to solve the problems, generate new ideas, and try new practices (Ngah, Tai, & Bontis, 2016). A trusted environment in organizations could increase the interaction of humans and promote the knowledge exchange (Mayer, Davis, & Schoorman, 1995). Highly trust encourages members to be willing to seek help, thus promote encouragement (McEvily, Zaheer, & Kamal, 2017). Shared narratives within the organizations will deepen the understanding of different experiences, backgrounds, and knowledge, results in the integration of new knowledge (Malik & Nilakant, 2016). Because of the existence of cognitive distance, employees need to pay more attention to communicating and understanding (Bogenrieder & Nooteboom, 2004). The abundant knowledge of individuals is the basis of knowledge transfer, then impact on innovation (Bolisani & Bratianu, 2018). We assume that the structural holes consist of human capital and social capital also have a positive promotion on innovation. As a result, we proposed the hypothesis as the following:

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H4: The magnetic structural holes will promote innovation through knowledge exchange and combination.

We assumed that the mutual interaction between human capital and social capital formed the magnetized hole has an impact of 1 + 1 > 2. Human and social capital indeed have a promotion on innovation, however, no companies could guarantee that recruiting more experts only or build a trusted, shared network only could ensure innovation. From the definition of organizational magnetization and hypotheses 1,2, and 3, the two of them interact with each other, finally maximize their positive effects on innovation. The following hypothesizes will be established.

H5: The magnetized structural hole has a greater effect on innovation than individual social capital and human capital.

H6: The stronger the magnetic field of the structural hole, the stronger the promotion of innovation.

#### 6. Methods

This proposal aims to focus on 20 MNCs in Shenzhen, China. These MNCs own a team-oriented working environment and aim to innovate on their products. Each research object is a work team: At least one team leader and one team member. The data could be obtained from around 100 teams from these MNCs. A quantitative study will be used for this proposal. The correlational research design is used for this proposal. Most predictor variables (independent variables) and criterion variables (dependent variables) will be measured by a five-point scale. The range of the scale would be 1 (strongly disagree) to 5 (strongly agree). By using the hierarchical multiple regression analysis, the findings are applied for explaining the relationship between human capital, social capital, and innovation.

For the investment in human capital, We use the number of times employees have participated in professional training as a standard. Our survey asked about three training modes for employees: 1 online training, 2 internal company training, and 3 external company training.

For social capital, we use the following survey data to measure. For structural social capital—the degree of networks, the questionnaire item is used: "Do employees actively participate in learning from each other?" Then we measure relationship social capital—the trust among employees, we use, "Do you trust your colleagues in the company?" Finally, we used the following item to measure the shared narratives, "Does our company has a sound management system to encourage employees to exchange knowledge?" We will use a five-scale as (1) absolutely not; (2) preferably not; (3) neutral; (4) possibly; (5) definitely to define.

From the previous studies, innovation could be regarded as new products, strategies, and customers. The questions of innovation could be defined as 1) "Our company works on new strategies all the time." 2) "Our company learns the Chinese policies and culture regularly and adjusts the local environment." 3) "Our company involves more new customers as year increases." The range of the scale would be 1 (strongly disagree) to 5 (strongly agree).

Also, to control the external firm influencing factors, we also have the control variables.

First, the resources that companies own could influence their innovation performance. So we ask a question that, 'Under extreme context (such as the Covid-19), our company has limited resources." The rating system will be based on a 5-points scale (1=a little, 5=a great deal).

Second, the size of the companies also has a certain impact on innovative performance. So we will divide the companies based on their number of employees.

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## 7. Expected outcomes

The human capital and social capital would mutually interact thus lead to organizational magnetization. The investment on human capital could promote the structural, relational, cognitive social capital thus increasing and tightening the training. Then the structural hole has a better impact on enhancing innovation. The impact of it could be increased as the magnific field increasing.

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