THE TRANSPARENCY OF THE CHINESE SOCIAL CREDIT SYSTEM FROM THE PERSPECTIVE OF GERMAN ORGANIZATIONS

Research Paper

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Abstract

The Chinese Social Credit System (SCS) is a prime example for the digital transformation of society. As a digitally-implemented nationwide project, its main goals include educating, enhancing social control, establishing trustworthiness and increasing market efficiency. The SCS covers not only Chinese citizens, companies and organizations, but also foreign ones which have activities in or with China. In our research, we conducted twenty interviews with employees from German organizations that run business in or with China to understand how they understand the SCS and what current and future impacts they perceive of the system on their organizations. In particular, we focused on interviewees' perceptions regarding the SCS transparency and its role in increasing the transparency of the Chinese business landscape. Our analysis of the interviews showcased an interesting contrast between reservations with respect to the system's transparency and the belief that the SCS would further the transparency of the Chinese business landscape.

Keywords: Social Credit System, transparency, foreign organizations

1 Introduction

The Chinese Social Credit System (SCS) is a digitally-implemented nationwide project. According to the "Planning Outline for the Construction of a Social Credit System (2014-2020)" (thereafter the *Planning Outline*), the declared aims of the system are to encourage trustworthiness within the Chinese society, improve market efficiency, strengthen social governance and contribute to building a harmonious socialist society (State Council, 2014). The SCS is a prime example to study the digital transformation of society as it utilizes a variety of technologies to monitor, assess and control the behavior of individuals, market participants and social organizations (Meissner, 2017).

The SCS consists of two main parts, focusing on individuals and market participants, respectively. This paper centers on the part of the SCS that focuses on companies and other organizations which is referred to as the corporate SCS. According to the *Planning Outline*, enhancing trustworthiness in commercial areas is a "key priority" of the SCS construction, and the implementation of the corporate SCS is among the four highlighted focus areas of the SCS (State Council, 2014). Indeed, the currently implemented system pays significant attention to companies from both the policy making and the practical perspectives (Meissner, 2017). Prior data-driven research demonstrates that companies make up the majority of available records on different types of lists in a sample local system (Engelmann et al., 2019).

In order to be impactful, the SCS has to provide a suitable level of transparency of the system itself so that the citizens and organizations are able to understand how it works and are thus able to change their behaviors accordingly. The level of policy transparency affects policy effectiveness (e.g., Crowe and

Meade, 2008; Héritier, 2012). Therefore, transparency is a first fundamental development requirement for the SCS. On the other hand, Chinese companies have been regarded as opaque in the global market (Xu, 2020; Funaiole, Bermudez and Hart, 2021). Recent major financial scandals such as Luckin Coffee and TAL Education further highlight the need to improve transparency for Chinese companies. Recognizing this need, a second critical development requirement of the SCS is to increase the transparency of the business practices of Chinese market participants (State Council, 2014; 2019). Our work focuses on these two facets of transparency related to the SCS, investigating how transparent the SCS is and how the SCS impacts the transparency of the Chinese business landscape. To answer these questions, we rely on the conceptual framework about transparency proposed by Schnackenberg and Tomlinson (2016), which emphasizes the receivers' perception of information quality and identifies three primary dimensions of transparency: information disclosure, clarity, and accuracy.

Our work seeks to understand the transparency-related issues of the SCS from the perspective of foreign companies. The *Planning Outline* states explicitly that the SCS is designed to contribute to "strengthening credit information management in areas such as foreign trade, foreign aid, foreign investment and cooperation" (State Council, 2014). There is ample evidence that foreign companies that do business in China are included in the SCS[1], which raises many concerns in the Western media. Therefore, the SCS's impact is not limited to Chinese society but may spread overseas through foreign entities that have activities in or with China. In this case, those countries which have closer economic relations with China will be more affected. Germany serves as a suitable case study country for our research given the rapid development of the economic relations with China during the past decade: China has been the biggest trade partner of Germany for five consecutive years (Statistisches Bundesamt, 2021); Germany was among the top 10 largest FDI source countries to China (MOC, 2020). As such, our results are directly relevant for German organizations. However, as the SCS becomes increasingly influential, the findings of the current research would also be helpful for other foreign companies running business in or with China.

2 Literature Review

2.1 Current state of the SCS

The current SCS is based on a complex and highly fragmented infrastructure as it tries to cover almost every aspect of social and business activities. Briefly speaking, the State Council develops the general outline and sets policy goals about the SCS, while different government departments issue policies about credit-related issues in their own fields such as "Measures for Tax Credit Administration" and "Measures of the Customs for the Administration of Enterprise Credit". They are also required to collaborate more closely in data sharing and exchange, which is another major goal of the SCS (State Council, 2014). At the same time, local governments which are primarily tasked with the SCS implementation within their administrative divisions have developed different SCS implementation strategies and regulations.

The SCS applies different technology-based mechanisms, among which two mechanisms are of great importance. The first one is the public shaming and praising mechanism. The SCS issues blacklists and redlists to blame and praise what is deemed bad and good behavior, respectively. The lists – including comprehensive personal and corporate information – are published both online and offline with public access (see e.g., Engelmann et al., 2021). The second one is the joint punishment and reward mechanism. Companies (as well as individuals and social organizations) that are included in one specific blacklist or redlist will be punished or rewarded across a wide range of fields according to rules defined in the Memorandums of Understanding (MoUs), which are signed jointly by different government authorities. Companies that are highlighted through the SCS on blacklists as untrustworthy will suffer from denial of licenses, lower chances to gain public contracts or participation in publicly-funded projects, mandatory burdensome government approval requirements for investments in sectors where market

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[1] On the SCS national platform "Credit China", the public can access credit information about foreign companies such as BMW and Bosch.

access is not usually regulated, etc. In contrast, companies that are evaluated as trustworthy on redlists will enjoy priority treatment in various areas: administrative processes, tax returns for exports, financial fund project applications, etc.[2]

2.2 Related work

Early work about the SCS made great efforts to understand the complex system and paid special attention to its potential political implications (e.g., Dai, 2018; Hoffman, 2018a; Liang et al., 2018). As noted by Meissner and Wübbeke (2016) and Creemers (2018), the SCS is not only a surveillance system, it also seeks to educate, regulate and change the behavior of individuals, companies and organizations. The SCS's aspects concerning individuals have previously been much discussed. A central argument is that the system raises significant privacy concerns due to the inadequate legal regulatory framework about privacy protection in China (Chen and Cheung, 2017; Wong and Dobson, 2019; Chen and Grossklags, 2020). In addition, empirical work revealed individuals' perceptions towards the SCS. Kostka (2019) surveyed about 2,200 Chinese citizens online and found that 80% of respondents approved the SCS. Another recent research from Merics which targeted Chinese University students showed a much lower approval rate (41-57%), which is, however, still higher than that from their German counterparts (19%) (Rieger, Wang and Ohlberg, 2020). The implications of the SCS for companies, especially for foreign companies, has recently raised increasing attention from the business community. For instance, Sinolytics and EUCCC (2019) issued a joint report discussing the SCS's potential impacts on foreign companies doing business in China. However, this topic has not been thoroughly explored in academia. We conducted a search on the "Chinese social credit system" in Google Scholar in March 2021 and reviewed the first 50 results. Only three of them focused on companies (Ramadan, 2018; Jia, 2020) of which only a single article included foreign companies in the discussion (Hoffman, 2018b). Despite of the initial efforts from Hoffman (2018b), it remains unclear how foreign companies understand the SCS and how they perceive the potential implications of the system. Therefore, our research is designed to fill this research gap from an empirical perspective.

3 Conceptual Framework

Despite the popularity of transparency research, there is little convergence about the definition and fundamental meaning of transparency. In most cases, transparency is defined and studied in one specific context and domain of research. This paper studies transparency in two related contexts: the transparency of the corporate SCS and the transparency of the Chinese business landscape. In this case, it is helpful to use a broad conceptual framework that does not distinguish between contexts of study, levels of analysis, or domains of research. Following Schnackenberg and Tomlinson (2016), "transparency is the perceived quality of intentionally shared information from a sender" (Schnackenberg and Tomlinson, 2016). According to this definition, first, the information is intentionally shared, emphasizing the deliberate openness of an organization or a system. Second, transparency is measured by the quality of information which is considered central to transparency. Third, transparency is a perception of the received information, which places emphasis on the understanding of the information from the receiver's perspective. Our research focuses on German organizations whose understanding of SCS transparency might be different from the Chinese local ones due to their differences in culture and positions in the market. Most obviously, some elements of the SCS which raised fierce debates in the Western media are actually familiar to the Chinese. Take the blacklists and redlists for instance. As early as kindergarten, children may receive praise and blame through the so-called "Honor Roll" and "Critique Roll", respectively. More generally, such "Rolls" typically present photos of individuals on banners at the entrance of buildings like hospitals, schools, and companies. In a more general sense, the personal file system (*dang'an*) which documents citizens' education background, employment history, reward, misconduct and crime records, is also linked to the SCS.

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[2] For instance, consider the MoU on the Implementation of Joint Punishment against Major Tax Violation Cases and the MoU on Implementing Joint Incentives for Enterprises with Advanced Customs Certification.

Schnackenberg and Tomlinson (2016) identified three primary dimensions of transparency: disclosure, clarity, and accuracy. Each reflects information quality from a unique perspective. The concept of disclosure relates to information availability, accessibility, and visibility (Kaptein, 2008), and is considered as a central dimension of transparency (Nicolaou and McKnight, 2006; Pirson and Malhotra, 2011). Clarity refers to the degree of difficulty with which the information could be understood by the receiver. As disclosure emphasizes the amount and type of information that is shared, clarity refers to the way in which information is shared. Many factors such as language and culture could have impacts on clarity (Larsson et al., 1998). Accuracy is defined as information reliability (Angulo, Nachtmann and Waller, 2004). Transparency requires that information reflect precise qualifications about the expected validity (Schnackenberg and Tomlinson, 2016) and not be purposefully biased (Walumbwa et al., 2011). In the words of Philippe and Durand, a system or a company must disclose information related to its environmental footprint precisely enough to allow stakeholders to judge its actual ecological impact (Philippe and Durand, 2011). These three dimensions of transparency are broad enough to be incorporated into research designs in various contexts; and also leave space for application at different levels of analysis. Therefore, they provide a suitable conceptual framework for our analysis.

Specifically, the transparency of the Chinese business landscape refers to corporate transparency at the country level. When talking about corporate transparency, we follow the definition provided by Bushman, Piotroski and Smith (2004: 210) - "the widespread availability of firm-specific information concerning publicly listed firms in the economy to those outside the firm". The definition fits well to our analysis about the Chinese business landscape from the perspective of German organizations.

4 Method

We conducted twenty interviews with representatives from German organizations between June 2 and September 2, 2019. Our targeted group included different types of organizations that are originally from Germany and have relationships with China. We used convenience sampling for selecting our interviewees, a non-probability sampling technique that "allows a potential respondent to self-select into the sample" (Schonlau and Fricker, 2002). This method is particularly helpful to exploratory research as conducted in this paper. We also found this method effective when encountered difficulties in finding potential interviewees. We sent emails to organizations including 65 firms and 30 NGOs based on information published on The China NGO Project[3] and the AHK Greater China[4], as well as 2 government authorities. Following up on the responses received, we conducted twenty interviews in total: twelve with employees of companies originally from Germany, seven with individuals working at German NGOs, and one with an employee of the German federal parliament (Bundestag).

Participants from companies represented various industries, including consulting (4), mechanical engineering (3), IT (2), chemical (1), transport (1) and exhibition (1). They were all managers, directors, or CEOs (except for one technical specialist) with knowledge and experience working in or with China. Five interviewees were working for firms that have at least one office in China - two Germans working in China and three Chinese individuals working in Germany. The seven remaining companies do not have establishments in China, but maintain business contacts with that country. The employee of the Bundestag was also a member of the German-Chinese Parliamentary Group and hence focused on the relationship between China and Germany. The seven NGOs included two organizations providing services for firms running business in China, three concentrating on fostering political education and maintaining western values, one aiming at establishing a more just global economy, and one think tank focusing on studies related to China.

Our interviews were structured into three parts, namely a segment about the organizations' relationship with China, a segment about experiences and perceived impacts of the SCS, and finally a segment with personal questions about the interviewee as well as his or her personal contact with China or the SCS

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[3] Refer to The China NGO Project, "Registered Foreign NGO Representative Offices Interactive Map and Filterable Table", URL: https://www.chinafile.com/ngo/registered-foreign-ngo-offices-map-full-screen (visited on 18 Nov 2020).
[4] Refer to AHK Greater China, "German Company Directory". URL: https://china.ahk.de/market-info/german-company-directory/access (visited on 18 Nov 2020).

(see Table 1). The second segment is the critical part while the other two segments are important to contextualize our interviews and for us to better understand the participants' answers. General difficulties and challenges of survey wording have been discussed in different contexts (e.g., Shaeffer et al., 2005). In this research, we used an indirect approach for the design of our questions, meaning that we did not explicitly mention transparency, but rather implicitly encouraged the interviewees to bring up the topic themselves. Our questions were similar for all of our interviews, but were adapted to each interviewee's respective industry or type of organization. Due to the exploratory nature of our research about a topic that has not been empirically analyzed yet, we chose to conduct semi-structured interviews consisting of a set of fixed questions and further questions based on the respondents' answers. Participants who were not able to do interviews were provided with a survey questionnaire which included the fixed questions from the interviews.

We conducted seventeen out of twenty interviews in German and the remaining three, namely those with the Chinese participants, in English. Further, two of our interviews were conducted in a face-to-face setting. In four cases, the questions were answered in written form and sent back to us through email. The remaining interviews were conducted by phone or via Skype. The oral interviews lasted between 25 and 75 minutes, depending on the respective participant's knowledge and contact with the SCS. Six of these interviews had a duration of slightly less than 30 minutes, seven lasted between 30 and 60 minutes, and 3 between 60 and 75 minutes. We audio-taped all oral conversations after receiving permission from each interviewee to do so. All information related to interviewees' identities and organizations' names was anonymized. Instead, we assigned a distinct number to each respondent.

Segments	Sample Questions
Segment 1: Relationship with China	- Which positive and negative experiences has your firm/organization had in China so far? - Does your firm/organization already have to provide more data to the Chinese government and authorities than the German ones?
Segment 2: Experiences and possible impacts of the SCS	- Has your firm/organization already gotten in contact with the SCS? - Has the SCS already proven a problem for individual employees of your firm/organization? - In your opinion, which advantages and disadvantages could the SCS entail for firms/NGOs and individual persons, respectively? - Can you imagine that your firm/organization will utilize the search function of the SCS in order to evaluate potential employees and partners?
Segment 3: Personal contact with China/SCS	- Do you take any special precautions or arrangements when interacting with China? - How often do you travel to China and which preparations do you make when you do? - Have you personally come into contact with the SCS?

Table 1.   Interview questions. (Full list available from authors.)

Our results rely on a careful analysis of the transcripts of the oral and written answers with two researchers independently coding the responses to identify prominent themes. First, they re-read the interview transcriptions line-by-line in order to extract meaning units from the texts. These meaning units could either be single sentences or full paragraphs, depending on the importance or elaborateness of the respective information being shared. In the next step, they summarized these meaning units to obtain condensed meaning units, which were then abbreviated even further to short meaning units, consisting of only a few words that indicate the essence of the original meaning unit. The short meaning units were then assigned to codes, referring to the general context. Finally, these codes were assigned to categories. In order to achieve inter-coder reliability, the two researchers evaluated and discussed each

other's coding choices repeatedly. Initially, the two coders achieved an inter-coder reliability of 78 percent and after several rounds of negotiating discrepancies, an inter-coder agreement of 100 percent could be attained eventually.

The two researchers generated three separate tables for three different types of organizations, each containing all of the generated condensed meaning units, short meaning units, codes and categories. The coding was conducted in original languages used in the interviews. Only in the final step, the German codes and categories were translated into English. Finally, 16 categories were identified, including SCS perceptions, knowledge, contact, implications, advantages, disadvantages, analogies in the West, information provision, etc. Due to the brevity of the conference format, we present our results in narrative style and highlight the number of interviewees that commented on a specific issue.

5 Results

5.1 Knowledge about the SCS

Our interview results reveal that many German organizations, especially companies, do not pay attention to the SCS and lack the motivation to access the related information. Four company employees explicitly stated that they had little knowledge about the SCS prior to the interview, and three others suggested that the vast majority of companies were ignorant towards the SCS. One interviewee from a consulting company, who had in-depth knowledge and practical experience with the SCS, reported that they did not know of any non-Chinese firms that had actually understood the system. Furthermore, one participant from an NGO specified: *"In a survey at the end of the year, around 3/4 of the companies were unsure how they would be rated in the system, and 60% were unsure how this will affect them."* (R16 from an economic NGO, Aug 8, 2019) Five out of the twenty interviewees expressed relatively comprehensive knowledge about the SCS, including two company employees, two NGO employees and one government employee. Specifically, two of them (one from a consulting company and one from the government) had tracked the SCS development for a relatively long time due to their work. Participants were most familiar with some basic factors of the SCS, including the blacklist and redlist mechanism, the sanctions embedded within the SCS, and some SCS pilot projects at city level. Even though employees may have some knowledge about the SCS, they hardly relate the SCS to their daily work. The majority of the interviewees in our study stated that their companies or organizations did not have any encounters with the SCS so far, and could not imagine that this would change in the near future. Merely two participants (one from a company and one from an NGO) mentioned that their company or organization had already been registered in the SCS with a Unified Social Credit Code (USCC), which is an 18-digit identification number for legal persons that had been almost fully implemented by July 2018 (Zhao, 2018).

It is interesting to observe that when our interviewees intended to search for information about the SCS, they turned to media reports rather than government documents. Two participants explicitly stated that they had done some research as preparation for our interview, and relied on various media to obtain information. One interviewee focused on a publication about the SCS from an European media outlet, whereas the other one gathered information from both Western and Chinese media.

5.2 Understanding of the SCS

Interviewees' understanding of the SCS was largely restricted to the system's aspects concerning individuals. Most of them failed to provide an insight towards the corporate SCS. Twelve participants drew analogies of the SCS to existing mechanisms and functionalities of different Western systems and suggested that the SCS was not fundamentally different from the latter. Four company employees said that the SCS was very similar to Western social media platforms such as Facebook or Twitter. Noting some differences between the two (e.g., the SCS is mandatory, while social media participation is voluntary), they considered the social media records as a different type of social credit rating. One interviewee linked the search function provided by the SCS platform to the one offered by Facebook in terms of job applications. Another one mentioned that, similar to the SCS, Western social media

platforms also allowed extensive profiling based not only on information provided by the users, but on their activities such as Likes. The same interviewee further stated that the requirement to provide a list of social media accounts in order to obtain a visa to enter the U.S. was de facto a social credit score.

Three interviewees (two company employees and one NGO employee) perceived the SCS as similar to financial credit reporting systems in Western countries (e.g., Schufa in Germany). One interviewee noted that the evaluation of work performance and social status was already implemented in Western societies in the form of specific rating systems and referred to the metric system in U.S. hospitals. One company employee compared the blacklisting mechanism of the SCS to travel restrictions in the West. He indicated that blacklists of air travelers were not a distinctive characteristic of the SCS, as this was already common practice in the U.S. and Russia; and sanctions and bans related to misbehavior on airplanes were also not something new or exclusive to China but existed in other countries as well. Further, when considering each of our interviewee's overall attitude towards the SCS, the three Chinese employees showed a more positive attitude towards the system than their German peers.

5.3 Perceived problems of the SCS

The issue apparently triggering the most concerns is that the SCS could complicate or restrict standard activities, which was mentioned by seven company employees and five NGO employees. More specifically, they worried that the acquisition of loans and other financial support, or matters of taxation might be negatively influenced by the social credit scores. Second, the SCS sanctions were regarded as draconian or in conflict with Western values, curtailing freedom of speech through censorship and imposing control and discrimination. Three respondents from companies shared the opinion that, in the future, it could prove difficult to motivate employees to go to China due to the values-based conflicts raised by the SCS. Third, the interviewed German organizations explicitly and repeatedly presented general concerns about the SCS transparency, such as how data collected by the system would be linked to the blacklist and who had access to the data. One NGO employee voiced the concern that negative ratings related to social and political behavior could not be traceable. Another NGO employee worried about corruption and abuse of the SCS due to the lack of transparency: *"As the subsystem entries of the SCS are still largely based on analogous judicial and administrative decisions, it is susceptible to corruption and abuse."* (R19 from a political and economic NGO, Jul 15, 2019)

Fourth, participants questioned the accountability of the SCS, in particular, potential misjudgments and data inaccuracies within the SCS. One company employee already noticed mistakes in company information registered in the SCS: *"We have already looked up the entry [of our firm] in the SCS. It is incomprehensible that there are five companies listed under our name that do not belong to us, but are simply fake"*. (R2 from a company, Jul 17, 2019) Another respondent gave an example about potential misjudgments like bad ratings for companies caused by fake products offered via internet platforms or due to fake firms operating under the same name as already existing businesses. Three NGO interviewees and the Bundestag employee also saw a problem in unjustified sanctions due to erroneous ratings that could, for instance, occur as a result of the vast volume and complexity of the data.

5.4 Perceived advantages of the SCS

The most widely perceived advantage of the SCS is the expectation that it promotes law enforcement. With regards to businesses, two employees from companies pictured the SCS as contributing to legal security from the perspectives of intellectual property law and debt payment. One of them stated that the SCS might lead to more reliable relationships with business partners or less violations of intellectual property laws. The other one suggested that the SCS would be advantageous for companies if it improved the compliance with payment terms. Such perceived advantages of the SCS correspond to the organizations' operational experience in China. Among others, three participants specifically talked about their unpleasant experiences in or with China regarding the lack of trustworthiness of local companies concerning payment. *"In fact, we often had difficulties regarding Chinese customers' payments. This has, I suppose, various causes, but it is always hard to track payments from abroad and they are relatively slow and late. What is more, some also try to lower the price [after the initial*

agreement] and that is a problem for us, too. Of course, we also have this issue with South American countries, but with China it is especially pronounced." (R4 from a company, Jul 17, 2019)

In addition, about one third of the interviewees (five company employees and two NGO employees) shared the opinion that the SCS has the potential to increase the transparency of the Chinese business landscape. In the first part of each interview, we asked the interviewees about their organization's experience with or in China in a general sense. Respondents' replies were mostly negative. At the macro level, as one consultant pointed out, numerous firms would have problems in China because they had not gathered enough information about the local market. Entry into the Chinese market was explicitly mentioned by three NGOs and one consultant as a key difficulty for German companies. In this context, the SCS is expected by participants to allow them to evaluate the trustworthiness of Chinese local suppliers, customers and partners, and to gain more information about competitors. Four company employees argued that the SCS platform could become a useful tool for companies when utilized for evaluating the trustworthiness of potential business partners. One NGO employee claimed that the search function was already consulted by foreign businesses when conducting research about trade partners. Participants also highlighted that the improvement of business transparency can be realized only if the SCS itself is transparent. One participant from an NGO specified: *"If the system is transparent and based on traceable criteria, it can be beneficial, as it will make the behavior of a company more transparent. For example, a firm's economic behavior or whether it meets payment obligations and so on."* (R16 from an economic NGO, Aug 8, 2019)

5.5 Perceived impacts and adjustments due to the SCS

Interviewees presented different opinions towards the substantial impacts of the SCS on their organizations' everyday activities. Six company interviewees did not consider the possibility of the SCS affecting their companies' business approaches, products, services or public relations. In contrast, six other company interviewees and the Bundestag employee could picture the modification of business practices to some extent. One of them said that their firm already went through an SCS-related audit: *"Yes, we will certainly change our business approach with respect to China, as this was the purpose of the audit we went through: to see how we have to change now, to what extent we have to alter the structures in our firm, how actively we need to point out to our employees that they need to communicate differently and what they have to watch out for."* (R2 from a company, Jul 17, 2019) Two other company employees stated that there were or would be "China-version" products, which, however, was due to the culture and the communist government rather than a result of the SCS.

Three NGO employees pictured products, services or public relations getting in conflict with the SCS if organizations did not align with the interests of the Communist Party and therefore adaptation would be necessary. Four pointed out that they would have to consider whether the required adaptations within the scope of the SCS were acceptable. Three NGO interviewees cautioned that adjustments could lead to self-censorship and referred to the Mercedes-Benz case (Deutsche Welle, 2018). One of them stated that they would not alter their publications, but that they paid special attention to the communication with Chinese partners due to the SCS. Another one indicated that the adjustment of their policies was in accordance with the general situation in China rather than the SCS itself.

Finally, seven interviewees (three company employees and four NGO employees) claimed that their organizations would provide information about the SCS to employees in the near future. Interviewees from two consulting firms and one NGO reported that they had already organized SCS-related events such as seminars, trainings and workshops. The same two consulting firms had also offered seminars, training and workshops to their clients.

6 Analysis

Our interviews result in many compelling findings about German organizations' perceptions and understanding about the SCS, among which the repeatedly mentioned matter of transparency is a critical topic. In this section, following the conceptual framework discussed in Section 3, we develop an analysis about SCS transparency and its potential impacts on the transparency of the Chinese business landscape

perceived by German organizations. According to perception research, individuals form perceptions of an actor's traits based on visible manifestations of these traits (Bruner and Tagiuri, 1954). In our case, the German organizations' knowledge about the SCS at the point of time of our interviews directly influenced their perceptions of the system.

6.1 Transparency of the SCS

6.1.1 Information disclosure

In general, German organizations' relative lack of knowledge about the SCS is directly linked to the relatively low level of information disclosure, the process of which involves both the information sender and information receivers. From the perspective of the information sender, i.e., the Chinese government, it has issued various documents related to the SCS, including plans, notices, outlines, announcements, opinions, reports and over 50 MoUs. At the same time, there are also online platforms of the SCS at both national and local levels communicating with the public about SCS-related development such as laws and regulations, and blacklists and redlists etc. All these governmental information sources are publicly accessible. However, most of our interviewees rarely mentioned that they had ever reviewed any government documents. The interviewees indicated their lack of motivation to access more information about the SCS, in particular, the government documents and platforms about the SCS. As such, the relatively low-level knowledge about the SCS among German organizations does not result from a lack of information disclosure, but is rather mainly due to the gap between information disclosure and information reception. Literature about transparency has emphasized the role and responsibility of the information sender in information disclosure (Schnackenberg and Tomlinson, 2016; Nicolaou and McKnight, 2006). We found that information receivers could also impact transparency, e.g., taking proactive action or refraining from information seeking. Therefore, system transparency could evolve with changes of behavior from both the information sender and receivers. Our interviews also revealed that some German organizations had started or planned to access more information about the SCS and thus to narrow the gap from the perspective of an information receiver. These efforts could then change German organizations' perception of the SCS and further influence the SCS transparency.

At the same time, we found that the news media played an important role in delivering information about the SCS. Information about the SCS is usually not directly delivered from the sender to the receiver, but largely through the news media. In this process, according to Chomsky's propaganda model, information is filtered by the news media for different purposes (Chomsky, 1995). Therefore, the mass media may affect information disclosure for the SCS. For example, when searching "Chinese social credit system" using Google search in November 2020, 11 out of the first 15 articles listed on the first two pages of results included discussions about individuals and only 8 mentioned companies. Also, articles that focused on individuals are more vivid by providing concrete examples about types of behaviors and corresponding punishments and rewards, which were not included in articles about the corporate SCS. Correspondingly, respondents repeatedly referred to the SCS's aspects concerning individuals even though our interview questions were designed to target the corporate SCS.

6.1.2 Information clarity

As shown in the results section, lack of transparency is perceived as a major problem of the SCS by German organizations. Transparency was talked about in a general sense by the interviewees and is in fact mostly related to information clarity. Their concerns, as presented in the previous section, include the ambiguous scope and process of data collection and usage, which implies a low level of information clarity. In addition, the speculative nature of a great amount of the interviews further proves the ambiguity of the information interviewees received. There are two main factors leading to the low level of information clarity. The first barrier is the language. All government documents about the SCS are issued in Chinese, which makes it difficult for foreign organizations to learn about the system, and thus lowers the quality of information (Larsson et al., 1998). Some translations of government documents about the SCS are available online, but users typically have to pay for the full versions. Also, these translations are not always accurate. The language barrier could also be a reason why German

interviewees refer to Western news media for the information about the SCS rather than the Chinese media. Still, government documents contain technical terms which are usually not easy for the public to understand and reduce the transparency of the SCS (Nicolaou and McKnight, 2006).

Second, the way that information about the SCS is shared is fragmented. The SCS covers almost every aspect of social life and business activities and is implemented in a complicated way. As noted before, a wide range of government authorities at different levels are involved in policy development and system implementation, with information about the SCS being issued and shared on various platforms. As a result, it is not easy for the public to interpret the system correctly given the complexity of the SCS and its rapidly changing characteristics, which lowers information clarity and raises the cost of information filtering.

The low-level information clarity may lead to misunderstandings about the SCS, which is manifested in our interviews. Interviewees' analogies of the SCS to some Western systems demonstrate certain essential characteristics of the SCS from a very specific perspective and are mainly based on the system concerning individuals, but fail to take a holistic view of the system. In addition to the difference between voluntary and compulsory participation, the SCS is different from western systems in at least two aspects. First, the SCS is unique in scope and scale. Through various rating mechanisms, the Chinese government attempts to entirely transform society. None of the extant Western systems is comparable in this perspective. Second, the SCS employs special mechanisms, such as the public shaming and praising mechanism, and the cross-sectoral joint punishment and reward system, that do not exist or are not popular in western systems. A low level of information clarity could, at least, be partially responsible for these misunderstandings.

6.1.3 Information accuracy

Government documents about the SCS and the platforms themselves are reliable in terms of system introduction and explanation, leading to a high level of information accuracy. However, as previously discussed, the participants relied primarily on media reports to learn about the SCS. When objectivity, which is understood as neutrality or non-partisanship, is lacking in news reports (Calcutt and Hammond, 2011), then the result is a lower level of information accuracy. According to the classic from Lippmann, the news media is the primary bridge between the vast array of events in the external world and the truncated views of these events in our minds (Lippmann, 1922). The way that the SCS is portrayed in the news media could influence people's understanding and even shape their perceptions about the SCS. This is well-reflected in publications about the SCS from the Chinese and the foreign media: most of the Chinese media present a positive view about the SCS, while the majority of the Western press hold a critical opinion by, for instance, comparing the SCS to Orwell's 1984 and the popular British show Black Mirror (e.g., Zhao, 2018; Palin, 2018). Our interviews also reflect these agenda-setting effects as Chinese interviewees, who are more likely to reach Chinese news media, showcased a more positive attitude towards the SCS, while German interviewees, who may rely more on Western news media, held a more negative attitude. Therefore, the information accuracy level of the SCS is relatively low from the receiver's (i.e., foreign companies) perspective, which may further result in some misperception of the system among foreign companies.

6.2 Transparency of the Chinese business landscape: The role of the SCS

As shown in the results section, German organizations indicated that the transparency level of the Chinese business landscape was relatively low. In the traditional Chinese business landscape, *guanxi* (reciprocal personal relationships) plays a critical role in information sharing and the subsequent trust establishment (Gong, Hsu and He, 2013; Tsang, 1998). For foreign companies, especially those that enter the Chinese market for the first time, however, it is not easy to build or even understand *guanxi*, making it difficult to gain enough information about Chinese local companies. A major concern that German companies raised in the interviews is related to the lack of information about potential local partner companies. Financial reports are available for listed companies which, however, account for a

very tiny portion of the total number of Chinese companies (134 billion by Sep 2020[5]). Since non-listed companies do not have the obligation to disclose financial reports, it is difficult to obtain more insightful information about them. Even for listed companies, which are required to disclose financial information, the quality of their financial reports can be relatively poor (Wang and Wu, 2011) and the disclosed financial information is not very reliable (Lu et al., 2020). In addition, the financial reports are provided in Chinese and comply with Chinese accounting principles which are different from the German ones, making it difficult for German organizations to understand them. In this case, the transparency of Chinese corporations is low in all the three dimensions - information disclosure, clarity and accuracy. This section analyzes whether the SCS could bring a change in this area by raising the transparency level of the Chinese business landscape.

6.2.1 Information disclosure

With data from different government authorities, the SCS aims at disclosing information about all companies running business in China. The SCS does not pay special attention to financial information which is the focus of other platforms for credit information such as Schufa and Dun & Bradstreet, but includes, in addition to basic information, many administrative records (see Figure 1) about a large number of companies. All the information is publicly accessible and free of charge. In particular, the SCS includes legal and regulatory compliance information such as blacklists and redlists, which could be used when evaluating companies' trustworthiness. Specifically, the platform discloses a considerable amount of detailed information about a company's (or an individual's) bad behavior, which contributes to increasing the transparency level of companies as well. The impact of the public shaming mechanism is enhanced by the joint punishment system which makes financial dishonesty very expensive. As a result, the SCS, as a supplementary regulatory system (Ohlberg, Ahmed and Lang, 2017; Dai, 2019), could also urge the Chinese market participants to become more transparent. In addition, the SCS platforms integrate an inquiry function which allows the public to access specific companies' or individuals' information for free. Users can simply input the name or the USCC of a company (or the ID no. for an individual) to examine credit-related records. In this way, the SCS not only provides more information about companies but also functions as a pre-screening system that allows companies to select only pre-qualified partners in China for business cooperation. As a result, it could replace the *guanxi* to some extent and could play a positive role in increasing the transparency level of the Chinese business landscape. This implicit pre-screening mechanism of the SCS also allows companies to evaluate the trustworthiness of potential business partners in the Chinese market at a much lower cost. It is thus highly valued by German organizations and has already been applied in business activities according to our interviewees.

Figure 1.   *A template of company data disclosure on the SCS platform (screenshot of the record for a foreign company from "Credit China": https://www.creditchina.gov.cn/). Users can click different tags at the bottom of the screenshot to receive more information in detail. Translation is provided by authors.*

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[5] Refer to CEIC. "China: Number of Business Entity and Company". URL: https://www.ceicdata.com/en/china/number-of-business-entity-and-company (visited on 17 Nov 2020).

6.2.2 Information clarity

Information from the SCS platforms is highly structured. With a concise template, information is classified and presented under different categories (see Figure 1). Each tag leads to more detailed information. The credit information for each company on the SCS platform can also be downloaded as a report in PDF format. Moreover, there is a black (for untrustworthy behavior) or red (for trustworthy behavior) tag shown next to the name of the company at the very top of the table to highlight the risks or the honors of the company. However, all information is presented in Chinese only, which again may create a language barrier. Overall, the SCS exhibits a high level of clarity, making the companies more transparent in the Chinese market.

6.2.3 Information accuracy

Information accuracy can be evaluated from two perspectives, depending on whether the information is purposefully biased by the sender. Both of these two perspectives of information accuracy in the SCS were explicitly challenged by our interviewees. It is difficult for us, as foreign researchers, to test the accuracy of the disclosed information directly. In our case, however, one (out of twenty) company employees had looked up their entries in the SCS and stated mistakes, indicating a high level of information inaccuracy. To potentially mitigate the shortcomings in accuracy, the platform contains a dispute and complaint function for companies to report incorrect information. Anyone who wants to report mistakes about the record could submit a dispute by completing a set of form field on the platform[6]. But it remains unclear to what extent this function actually works, which should be evaluated by further research. Moreover, German organizations expressed their concerns regarding the possible abuse of the SCS, which is a form of purposefully biased information sending. A recent systematic study corroborates this finding and is supporting German organizations' concerns about information inaccuracy in the SCS. According to the survey, more than 60 percent of Chinese listed companies' litigation cases are missing in the court disclosure for political reasons (Liu et al., 2019). Since the court's database contributes a large part to the SCS data source - in particular the "List of Dishonest Persons Subject to Enforcement", the above mentioned missing data is also excluded from the SCS platform. In this case, the information accuracy level remains questionable, reducing the SCS's effort to increase the overall transparency level of the Chinese business landscape.

7 Discussion

Our interviews with German organizations showcased an interesting contrast between general concerns about the SCS transparency and the belief that the system would further the transparency of the Chinese business landscape. Based on the transparency framework proposed by Schnackenberg and Tomlinson (2016), we analyzed the transparency in two different contexts. We demonstrate that the lack of transparency of the SCS, from the perspective of German organizations, is mainly caused by the low level of information clarity and accuracy, as well as the gap between information disclosure and information reception. Our analysis also suggests that the SCS could help to increase the transparency level of the Chinese business landscape, as it offers much information about a large number of companies with free public access and in a well-structured manner. But the effects might be weakened to some extent by the lack of information accuracy. In this section, we discuss how transparency in one context (i.e., the SCS) affects the transparency in another context (i.e., the Chinese business landscape). As the SCS corresponds to the global trend of using digital tools to influence behavior, such a discussion could also contribute to the design of other digital tools.

Based on our findings, we argue that the effectiveness of the SCS's functions is highly dependent on the transparency of the system itself. The core of the relationship between the two contexts of transparency discussed in this paper lies in trust. Transparency informs the extent of perceived trustworthiness of the organization which is an antecedent to trust (Schnackenberg and Tomlinson, 2016). In other words, trust indicates a willingness to be vulnerable to the trustee based on the expectation that the trustee will

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[6] Personal information including full name, cell phone number (for verification) and email address is required.

perform a particular action (Mayer, Davis, and Schoorman, 1995), whereas information shapes these expectations (Schnackenberg and Tomlinson, 2016). In this case, if the SCS is transparent and based on traceable criteria, it will make the companies' behavior more transparent. On the contrary, if the SCS itself lacks transparency, it cannot gain much trust from the public. As a result, its goal of increasing transparency of the overall business landscape in China could hardly be achieved. On the other hand, the information sender affects transparency by providing information with different qualities (e.g., what information and how much information is disclosed to the public), depending on its intentionality (Schnackenberg and Tomlinson, 2016) and ability to control the information (Fenster, 2015). The ability of the Chinese government to control information about the SCS creates doubts regarding the system's exposure and clarity. As previously discussed, a major goal of the SCS, among others, is to facilitate information exchange and sharing between different government departments (State Council, 2014). From the perspective of these departments, however, it is important to remain in control of the data in accordance with the saying "data is power". As such, they are actually reluctant to share data with others (Song, 2015). What is more, technical difficulties may also hinder the progress of data integration and sharing. Briefly speaking, the complexity of the SCS limits the government's ability to provide more, clearer and more accurate information about the system, and therefore constrains the transparency level of the system.

Regarding intentionality, the information sender could manage the level of transparency to achieve specific goals. At a very high level, the SCS is expected to educate, instill trust and control at the same time. However, such "transparency engineering" becomes very complicated if the Chinese government wants to achieve different goals simultaneously. In general, as analyzed in this paper, the system is neither too transparent, nor extremely opaque. The current transparency level is possibly a mixed result after taking different goals into consideration. Improving the transparency of the business landscape, as discussed in this paper, requires a very high level of SCS transparency. However, it is only one of the major goals of the SCS, and thus cannot define the transparency of the system by itself. In fact, there are other reasons for the SCS to remain more opaque. First, a less transparent SCS may be more suitable to exercise control over the Chinese society. In fact, the scope of different types of behavior that are covered by the SCS is not clear. There are policy documents such as MoUs including certain behaviors that will result in punishment or reward. However, behaviors are usually described in a general sense rather than specified, and a wide range of behaviors are not explicitly mentioned. Due to this lack of clear behavior distinctions, participants (individuals, companies and other organizations) have to evaluate most of their behaviors by themselves to avoid punishment or to receive incentives, which might lead to a higher degree of self-censorship. This has also been observed in our interviews. Two interviewees from NGOs mentioned that their foundations had already reworked particular statements or publications dealing with sensitive topics, like religious freedom, political participation as well as Hong Kong, and feared that they were beginning to censor themselves. Second, a certain degree of opaqueness is required to avoid a "crowding-out effect" regarding the motivation of market participants. It has been noticed that there are asymmetries in transparency between different parts of the SCS: blacklists are found to be more transparent than redlists. These discrepancies are possibly motivated by behavioral engineering goals - to avoid transforming norm compliance to a market transaction where bad behaviors could be compensated by fulfilling the rules in other areas (Engelmann et al., 2019). Therefore, the transparency of the SCS has to be balanced between the system's different goals at the high level. Taking these different perspectives into consideration, we suggest that there are limits when a system (such as the SCS) provides transparency about others and wants to achieve other objectives at the same time.

Acknowledgments

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