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The Development of Trade Fair Ecologies in China: Case Studies from Chengdu and Shanghai

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Abstract: Despite China's rapid economic growth and embedding into global value chains, not much is known about the primary places where buyers and sellers from China and abroad meet, make business and circulate information and knowledge, i.e. the national/international trade fairs in the country. Previous reports suggest that the number and size of such events in China is growing and that the trade fair business is in a process of catching-up. Under these circumstances, trade fairs may develop into import or export events, where buyers and sellers engage in transactions, or into temporary clusters, where they exchange knowledge for industrial upgrading and innovation. In this context, this paper explores the interaction and communication patterns of firms at Chinese trade fairs and investigates whether these events are similar to those in Europe and North America. The analysis involves systematic comparison of the communication and interaction practices at three national/international trade fairs in Shanghai and Chengdu, based on a total of 102 semi-structured interviews.

Keywords: Trade fairs; trade fair ecologies; temporary clusters; latecomer development; China **JEL Classifications:** D83, F59

1. Introduction: Trade Fairs in China

Studies of China's economic development over the past decade have provided an abundance of evidence about the rapid expansion of global value chains, foreign-direct investments, research and development expenditures and associated regional growth dynamics (e.g. Sun and Wen 2007; Wang and Lee 2007; Yeung 2009; Wang et al. 2010; Wei et al. 2012). Although being subject to disadvantages (e.g. technological backwardness or blocked access to assets) as a latecomer in economic development (Lieberman and Montgomery 1998; Guo and Hu 2004), China has caught up quickly in terms of its economic and technological structure. This has been due to foreign-direct investments, technology transfers, state expenditures and a large domestic market that have enabled fundamental learning processes (Fan 2006; Liu and Dicken 2006; Miao et al. 2007; Naughton 2007; Wei and Liefner 2012; Wang and Lin 2013). Given the increasing significance of China in global networks of knowledge and technological learning, it is surprising how little research exists about those national/international trade fairs in China, where knowledge flows and technological learning crystallize. This paper particularly focusses on the variety, multiplicity and diversity of knowledge flows about products, technologies and markets during trade fairs. We use the term 'trade fair ecology' to describe the selection and mutation processes of those knowledge bodies (Grabher 2001) that circulate during these events, some of which are picked up, refined and become influential later on, while others are forgotten and disappear over time.

Research about the development of such events in China is at an early stage and has primarily been undertaken from the perspective of business/marketing and hospitality management/tourism (Luo 2008). Existing work on Chinese trade fairs analyzes their state of development (Kay 2005; Yang 2009; Jin et al. 2010b), spatial distribution (Ju et al. 2006a; 2006b;

Jin et al. 2010a) and the driving forces behind the exhibition industry (Jin et al. 2012). This literature, however, lacks common definitions and terminology, uses different methods and has not produced systematic comparisons and in-depth studies of actual events (Luo 2008).

In terms of its historical development, trade fair activity in China unfolded in Guangzhou, which became the location of the famous Canton Fair – or Export Commodities Trade Fair (today: China Import and Export Fair) – since 1956 (Jin and Weber 2008). In the rest of the country, trade fair development was slow, politically driven and controlled by the state (Kay 2005). After the opening policy in the 1980s, the Chinese trade fair business began to expand quickly and, in the 1990s, new convention venues were built in many different cities. At that point, trade fair centers were largely located in the designated Coastal Special Economic Zones. While Hong Kong and close-by Guangzhou were the dominating trade fair places with a gateway function to connect foreign traders to Chinese producers (Powell 2007), activities in other cities, such as Shanghai and Beijing, quickly picked up.

The construction boom of new convention and exhibition centers continued during the 2000s (Kay 2005). Between 2009 and 2011 alone, the number of convention centers with more than 50,000 m² of indoor exhibition space grew from 31 to 38 and total exhibition space in these centers increased by 38.2 % from 2.5 to 3.4 million m² (Table 1). Guangzhou and Shanghai clearly had the largest indoor exhibition space and added substantial new trade fair capacity during this time period.¹

¹ In Shanghai, the overall indoor exhibition space of the Shanghai New International Expo Centre almost doubled from 103,500 to about 200,000 m² between 2007 and early 2012 (Geduhn 2012; Bartsch 2012). In addition, another – even larger – trade fair center is scheduled to be completed by 2015 close to Shanghai's former airport Hongqiao. The Hongqiao Convention and Exhibition Centre will have a planned indoor exhibition space of 400,000 m² (Shi 2012).

Table 1 about here

Today, more than half of the trade fairs in China are organized by industry associations, another quarter by the state, and the remainder involving foreign organizers (Jin et al. 2010b). Most large international commercial event organizers, as well as semi-public trade fair organizers from counties such as Germany, are now active in scheduling new and established fairs in China. Large industry fairs are often organized in the form of joint ventures between foreign event organizers and local organizers or state organizations.

Overall, the number of trade fairs in China has grown almost exponentially (AUMA 2008). According to Guo (2012), the number of events increased from 4,600 to 6,000 between 2009 and 2011. In 2009, a total of about 1,200 trade fairs were held in Shanghai, Beijing and Guangzhou (Wang and Guo 2010). By that time, trade fair activity also spread toward inland and western Chinese cities such as Chengdu (Table 1).

While this suggests that the trade fair business has developed rapidly and spread widely throughout the country, systematic information does not exist regarding the types of trade fairs that evolved or the nature of interaction during these events. From this, the goals of our enquiry are threefold: first, to explore the nature and structure of national/international trade fairs in China in terms of participants and their agendas; second, to investigate whether the nature of communication and knowledge exchange resembles that at international events in Europe and North America; and, third, to explore variations of trade fair ecologies between old and new urban centers of such activity.

The remainder of this paper is structured as follows: section 2 discusses the applicability of the concept of temporary clusters to China's latecomer context and develops four hypotheses

for the analysis. Section 3 describes the methodology of the explorative study and section 4 presents the results of 102 qualitative interviews conducted at three trade fairs in Shanghai and Chengdu. Section 5 discusses these results with respect to the hypotheses developed and section 6 concludes.

2. Trade Fair Ecologies, Temporary Clusters and Latecomer Development

Since the mid 2000s, a growing body of literature has developed that views trade fairs not just as marketing or sales events where producers make business with buyers, but rather emphasizes how these events canalize knowledge flows over distance (Borghini et al. 2006; Maskell et al. 2006). From a knowledge perspective, particularly business-to-business events are key in developing new markets, initiating and maintaining network relations and coordinating interaction between distant locations (Prüser 2003; Bathelt and Schuldt 2008; Ramirez-Pasillas 2008). Such events can be characterized as temporary clusters (Maskell et al. 2006) where firms from a value chain or technology field meet to discuss the development of markets, products, technological innovations and news regarding their business – thus establishing a "microcosm" of the industry (Rosson and Seringhaus 1995). At the same time, these transient spaces are social events (Norcliffe and Rendace 2003; Entwistle and Rocamora 2006; Weller 2008), contributing to and benefitting from recurrent themes and technological progress in cyclical and related meetings (Godar and O'Connor 2001; Power and Jansson 2008).²

² Historically, trade fairs have existed in Europe for long since medieval times, associated with Christian holidays and combining trade functions with religious festivities (Allix 1922).

Trade fairs generate complex ecologies of communication and knowledge flows that involve both vertical and horizontal interaction. Vertical interaction of participating firms with suppliers and especially customers consists of information exchange about trends, experiences and requirements for products, services and technologies (Bathelt and Schuldt 2008). Although meetings with suppliers are important to catch up with changes in the production context, the key components of trade fairs are systematic customer contacts (Rinallo and Golfetto 2011), through which firms intensify existing social relations with and address new customers (Backhaus 1992; Meffert 1993). Intensive, often short discussions and associated learning by interaction are important sources of knowledge that spread geographically and guide future product development. These face-to-face contacts reduce uncertainty in dynamic technological and market environments and reduce transaction costs in finding appropriate future transaction partners (Williamson 1985).

Trade fairs also bring together competing firms that have few incentives for direct cooperation and technological exchanges. At this horizontal level, fairs have an important benchmark function and provide opportunities for firms to compare their products and strategies with those of their competitors. Firms systematically look through other exhibits and make note of product designs, innovations and new applications (Bathelt and Schuldt 2008). As such, learning by inspection and observation provide important information for innovation.

Communication and learning processes benefit from the fact that the agents share a similar institutional basis with respect to products and technologies (e.g. Sharland and Balogh 1996; Borghini et al. 2006). They are part of communities of practice and epistemic communities with partly overlapping and partly complementary knowledge bases (Wenger 1998; Knorr Cetina 1999). This provides the grounds for common interpretations and mutual understandings (Bathelt and Schuldt 2008). Overall, new ideas and projects in an industry or technology field can be

identified through scouting and through exchanging information, news and rumors. The resulting communication and knowledge ecology can be characterized as temporary 'global buzz' (Maskell et al. 2006; Schuldt and Bathelt 2011).

Since different types of trade fairs bring together different agents from different stages of the value chain and serve different purposes, the distinction and analysis of vertical and horizontal knowledge exchanges allows us to systematically compare these events with one another. We use this methodology in this research to conduct a systematic comparative analysis of selected Chinese trade fairs.

Due to the multiplicity of knowledge flows and the cyclical nature of these events, international trade fairs serve to deepen the institutional basis of technology fields and are thus part of the reproduction of global production settings. While the literature on global value chains and production networks uses an actor-network perspective to analyze global connections between buyers/producers in developed countries and subcontractors/partners in developing countries (Henderson et al. 2002; Humphrey and Schmitz 2002; Coe et al. 2008), it offers not much insight with respect to the role of international trade fairs in the creation and maintenance of such linkages. How do such events channel the extension and maintenance of global networks and how do powerful agents, such as international buyers, use trade fairs to develop their subcontracting networks? To analyze such questions further, we first need to provide a better understanding of the nature of communication and knowledge flows during these events, which is the goal of this paper.

While the above described conception emphasizes global knowledge circulation, this may not be easily applicable to developing contexts where trade fairs may serve different purposes. Existing literature on trade fairs in China highlights that these events are important for both Chinese producers to meet foreign buyers and foreign producers to access the Chinese market.

The former Canton Fair in Guangzhou – which is now one of the largest trade fairs worldwide with about 10,000 exhibitors from China and 200,000 visitors from over 100 countries – developed since the late 1950s into a mega event to promote export sales by enabling Chinese producers to make business with foreign buyers and foreign buyers to order low-cost products in China (Jin and Weber 2008; Canton Fair Online 2012). As emphasized by Fu et al. (2007: 84), "[w]ith its transactions that account for about one-fourth of China's general export trade every year, the fair … has served as an important platform for promoting products by small and medium-sized Chinese exporters".

Although it remains open how important this event is for today's export trade, the China Import and Export Fair clearly still remains an important marketplace. Powell (2007) described the sales activities and "buzz" during this trade fair emphasizing that Chinese entrepreneurs attending the event particularly liked to do business with US-based firms because these would pay 30 % of the order value up-front. This business practice reduced the overall risk of Chinese firms which often had limited capital, while customers from other countries apparently preferred transactions based on letters of credit, which were perceived to be much riskier by Chinese exhibitors. Similar to the Canton fair, other anecdotal evidence suggests that Chinese trade fairs are very strong in terms of sales and contractual components, while non-selling objectives (Fu et al. 2007) and innovation play only a minor role (Kay 2005).

In a comparative observation of the layout and activities during major plastics trade fairs in China, Germany and Japan, Young (2004) found that almost all global players of the industry showed their products in China, yet that their exhibits were quite different from those exhibited at the other fairs. He noted that some "exhibitors only had a small, storefront booth. Most press makers had only two or three machines in their booths...", as opposed to German and Japanese fairs, where the entire production program would be showcased. Young (2004) further observed

that the "materials being molded on the shop floor were relatively low tech, with high-volume, commodity materials dominating, whereas in Japan machine makers focused on running more advanced, difficult-to-mold materials." German exhibitors, due to the high costs of participation (Kay 2005) attempted to exhibit as many items in their small booths as possible creating rather crammed exhibits with little aesthetic ambition. Furthermore, some foreign exhibitors promoted their recent innovations, but did not actually exhibit them. These studies clearly indicate that Chinese trade fairs were not focused on leading-edge innovation, but concentrated on supporting existing products that were targeted towards the Chinese market.

Another set of studies point at inefficiencies present at Chinese trade fairs that impact the interaction processes. Skov (2006), for instance, criticized the inefficient organization and unprofessional management of trade fairs, as well as unprofessional participants at these events. Similarly, Jin et al. (2010b) criticized opportunistic behavior of trade fair organizers, sometimes creating unnecessary confusion and supporting misleading expectations of participants. Kay (2005) suggested that the boom of new trade fair centers was primarily driven by political goals instead of real demand, resulting in over-capacities and low utilization rates of such facilities, especially in second-/third-tier trade fair cities (Jin et al. 2010b) as measured by the number of trade fairs and their overall size. All of this suggests that Chinese trade fairs are unlikely to perform a strong role in knowledge creation, network generation and inter-firm learning processes as suggested in the model of temporary clusters.

Following the discussion of governance forms of global value chains by Gereffi et al. (2005), one would still imagine that trade fairs play a significant role for economic interaction in processes of economic development and internationalization – especially when the risks associated with transactions are relatively low, when products and related technologies are codified and/or when local suppliers are well developed and, thus, transaction costs low (e.g.

Scott 1983). As such, neither captive/hierarchical value chains that are dominated by powerful transnational firms nor relational chains with more balanced power relationships likely rely on the types of fairs discussed above as a way of establishing or deepening linkages with domestic producers. In the former case, decisive communication would focus on direct inter-firm linkages as opposed to trade fairs, while the latter types of chains would require that trade fairs focus on complex knowledge exchange and network building, much different from how the existing literature describes Chinese trade fairs. Following this logic, a likely scenario would be that trade fairs primarily support trading/transaction activities of market/modular chains during such events.

However, such conclusion may be premature. Despite its latecomer status, China has undergone an unprecedented catch-up process in terms of industrialization, technological upgrading and learning (Fan 2006; Miao et al. 2007; Yeung 2009; Wang and Lin 2013). It should be expected that learning processes have been complemented through communication channels associated with trade fairs. Especially considering that the most important private and semipublic European and North American trade fair organizers are already strong contenders in the Chinese trade fair business, there is reason to be skeptical of whether the hypothesized sales/cost focus of trade fairs still holds. In fact, in analyzing the motivations and satisfaction of trade fair attendees, Bauer et al. (2008) found in a case study in Hong Kong that there were no significant differences between foreign and domestic participants. And some Chinese trade fairs seem to develop into global meeting places of value chains (Bartsch 2011). If we follow Maskell's (2012) conceptualization of how access to remote knowledge is established, it can be expected that trade fairs become major places of knowledge acquisition, as China is characterized by high uncertainties regarding questions as to which type of knowledge is required in innovation, where to look for it and who to approach.

From the above considerations, we hypothesize that Chinese trade fairs are less innovative than flagship fairs in other countries, such as those in Europe, but that knowledge exchanges between participants, as described in the temporary cluster model, are more important than previous research suggests (H1). We also expect that intensive networking and customer interaction are significant during these events, while practices of negotiating sales and contracts are not as important as implied in the literature (H2).³

Although, as indicated above, previous studies have drawn a picture of Chinese trade fairs as lagging behind, as being inefficient in their organization and/or as driven by sales activities, we wish to cast doubt on such homogenous characterization. Different actors groups, such as different state levels, industry associations and exhibitor and visitor groups, have different interests and are part of contests over the use of exhibition space.⁴ Trade fair development is therefore highly contextual and it is unlikely that a single trade fair type would result from this. We therefore hypothesize that substantial differences exist between different events in China, depending on the sectoral/technological/geographical contexts (H3). However, since trade fair development began in different time periods, we expect that differences exist between early leaders and latecomer cities, for instance in terms of the efficiency of event organization and the importance of knowledge flows at such events. We hypothesize that trade fair organization and interaction patterns are less sophisticated in latecomer cities in inland locations, as opposed to the more mature trade fair centers in coastal areas (H4).

³ It should be emphasized that trade fairs are never exclusively innovation-oriented or exclusively salesdriven, since participants have different capabilities and strategies. While we thus necessarily encounter a mix of different practices at trade fairs (Power and Jansson 2008), their overall focus can be quite different (Schuldt and Bathelt 2011).

⁴ We wish to thank one Referee for pointing this out to us.

Before presenting results of our research, the next section discusses the methodology applied in terms of case selection, sampling and interview design.

3. Methodology

Based on our goals to explore the state and development of the trade fair business in China, we conducted a comparative, interview-based study of three trade fairs in established manufacturing sectors, in which such events traditionally play an important role. Following a close-dialogue approach (Clark 1998), our research was primarily qualitative and exploratory in nature (Eisenhardt 1989). We chose to investigate trade fairs in both an early-development coastal city and a latecomer inland city. Following previous studies, our research focused on business-to-business industry fairs that are not directed towards end consumers (Borghini et al. 2006, Bathelt and Schuldt 2008, Ramirez-Pasillas 2008), as such events allow us to draw conclusions about the economic impacts on wider production networks.⁵

Our empirical research focused on trade fairs held in Shanghai and Chengdu. Both cities are important economic and political centers in the coastal area and inland China (Sichuan province), respectively. As measured by gross domestic product, Shanghai was the most important economic center in China with 1.9 trillion RMB in 2011, while Chengdu was the second-most important city-region in Central and West China after Chongqing, with 685 billion RMB (National Bureau of Statistics of China 2012). Both cities are also centers of government power at the provincial level and benefit from corresponding economic support policies, all of which stimulates trade fair development.

⁵ There are, of course, substantial differences between business-to-business and business-to-consumer fairs in terms of business focus, structure of authority and learning dynamics (e.g. Rinallo and Golfetto 2006).

The first event selected was China International Industrial Fair (CIIF) in Shanghai. It takes place annually in the Shanghai New International Expo Centre (SNIEC), close to the international airport in Pudong (China-Fairs.com 2012). CIIF is one of the largest manufacturing fairs in Asia with a total of 1,653 exhibitors and 116,800 visitors in 2010 (Table 2). The event is jointly organized by several national ministries and academies, as well as the city of Shanghai (China International Industry Fair 2011), set-up in collaboration with the trade fair organizers from Hannover, Germany. CIIF is also one of the most international trade shows in China in terms of exhibitor participation, with 34 % of all exhibitors originating from overseas. In contrast, CIIF has only few international visitors (China International Industry Fair 2009; 2011).

Table 2 about here

At closer investigation, CIIF is not a homogenous event but an amalgamation of six individual fairs: a so-called multi-sector trade fair spanning the fields of industrial automation, energy, environmental protection, metalworking/CNC machinery, information communication technologies and scientific/technological innovation. The individual fairs took place in all nine exhibition halls of SNIEC that existed at that time, covering a total indoor exhibition space of 103,500 m² (Table 2). We chose to explore two of the trade fairs at CIIF with different technology focus by conducting interviews with exhibitors. The trade fairs selected were the Metalworking and CNC Machine Tool Show (MWCS) and Information & Communication Technology Show (ICTS). Of these, MWCS was clearly the core of CIIF, occupying three exhibition halls. Arguably, most of the visitors of CIIF were attracted to this trade fair. In contrast, ICTS took place in only one exhibition hall and was characterized by a much lower share of international exhibitors compared to MWCS. The third trade fair investigated was the 12th China International Exhibition on Gases Technology, Equipment and Application (IG China) in Chengdu. Although trade fair activities in Chengdu developed much later than in Shanghai, the city also has a modern suburban exhibition center. The Chengdu New International Exhibition & Convention Center consists of nine exhibition halls, covering 55,000 m² of indoor exhibition space (Kay 2005; AUMA 2008). It encompasses a total construction area of 200,000 m², has sophisticated infrastructure (including subway access) and close-by hotels (Chengdu Municipal Government 2008). With an exhibition space of 12,000 m², 220 exhibitors and 10,000 visitors, IG China was about the size of ICTS (Table 2). Although foreign attendance was relatively low, firms from Germany, the USA, Russia and other countries were among the exhibitors. IG China has been held in different cities over the years, organized by the China Industrial Gases Industry Association – the national industry association. It took place in Chengdu for the first time in 2010 (Cockerill 2010; China International Exhibition on Gases Technology, Equipment and Application 2010) and was held in Beijing in 2009 and 2011 and in Nanjing in 2012.

During these three trade fairs, we conducted explorative studies using a qualitative research design that involved semi-structured interviews and systematic observation. Firms to be interviewed were chosen randomly in such a way that the entire exhibition halls were covered while ensuring that, on the one hand, small and large and, on the other hand, domestic and foreign firms were included. Firms to be included were approached during fair hours and asked to take a few minutes to participate in the study. A total of 102 interviews were conducted in November 2010, with 45, 24 and 33 interviews at MWCS, ICTS and IG China, respectively. Overall, we had a very high response rate of 89 % with only 13 rejections. A somewhat higher rejection rate of 23 % at ICTS was probably due to the problematic set-up of the trade fair that left many exhibitors dissatisfied, as discussed below. Interviews were conducted in English,

Chinese or German with the most senior decision-makers present at the exhibition booths, i.e. usually executives, sales managers or engineers.

Interviews took on average 10 to 15 minutes and were based on a structured interview guide. The questions asked were divided into five sections. The first section focused on the characteristics of the trade fair and the main reasons for attendance. The second and third sections contained questions about customer and competitor interaction during the fair, including the types of visitors, customers and competitors met and the topics discussed. In the fourth section, interviewees were asked to qualify the outcomes of trade fair participation. In the final section, additional information was acquired about the demographic structure of the firms.

Through a series of mostly open-ended questions, the goal was to systematically record the different interaction and knowledge-circulation practices of exhibitors. Interviews were transcribed after the events and important aspects of the answers identified and condensed in a number of consecutive stages. Categories were then identified and answers classified in an iterative process, thus enabling the identification of exhibitor types. This process of analyzing the qualitative data enabled us to compare the structure of knowledge-creation patterns at the three events, characterize the events and identify their differences, rather than just describing the multiplicity of different behaviors at each of them. In the end, this process allowed us to draw conclusions regarding the hypotheses formulated. Key results of this analysis are shown in Table 3.

Table 3 about here

The next section analyzes and compares the nature of interaction processes between different attendee groups at the three trade fairs.

4. Communication and Interaction Patterns at Chinese Trade Fairs

Our empirical analysis of the communication and interaction patterns at Chinese trade fairs turned out quite differently from what we hypothesized. In contrast to earlier media reports and academic studies, we did not find older trade fair facilities or shows that were disorganized or mismanaged. In contrast, it became clear that the trade fair business in China was "buzzing", that trade fair centers were heavily used, and that the business grew rapidly with the establishment of new, highly modern venues. As described below, we encountered mostly professionallyorganized shows that were not substantially different from trade fairs to be found in Europe or North America. These were neither pure import nor export sales shows, but heterogeneous trade fairs with complex goals, knowledge exchanges and participant evaluations.

4.1 Metalworking and CNC Machine Tool Show (MWCS), Shanghai

MWCS was clearly the largest and busiest of the trade fairs at CIIF (China International Industry Fair 2011). In general, MWCS can be characterized as a broad machinery and manufacturing trade fair specialized on industrial machinery and equipment, CNC machine tools, plant engineering and all sorts of metal-related and metal processing applications. The exhibition space was characterized by a dense flow of visitors engaged in scouting material artefacts and discussions with exhibitors and other visitors about characteristics of the exhibits, their applicability and price. Overall, the trade fair was different from reports about other trade fairs in China. Neither was MWCS a chaotic event, nor was the focus of activities on sales. In fact, although some differences were observable between this fair and comparable trade fairs in Europe, the overall nature of knowledge exchanges and interaction patterns was not fundamentally different from that at fairs, such as Hannovermesse or IFFA in Germany (Schuldt and Bathelt 2011). Despite this, the following deviations were noticeable: First, the display of the most advanced technologies and the presentation of innovation at MWCS clearly played a smaller role than in European flagship fairs. Foreign exhibitors did not show their latest, most advanced innovation and had smaller exhibits than in Europe or North America. Despite this, much of the discussions in the halls were about new developments in the industry and innovation trends (Table 3). Most of the Chinese exhibitors, although not being innovation leaders, classified themselves as quality producers (often with medium price). As one senior manager described it: "We are not Mercedes ... or Volkswagen, but we focus on our group of people. That is why we are so successful in Asia."

Second, direct sales activities were clearly going on at MWCS, but did not stand out as the focal motivation behind trade fair participation. Firms emphasized that MWCS was in the first place an occasion to make direct customer contact in the Chinese market, from which sales could perhaps develop later. Most foreign exhibitors were optimistic about the prospects of follow-up business in the future. In sum, the reasons for participating in the trade fair were quite varied: one group of exhibitors emphasized the goal of brand promotion in the Chinese market (13 of 45 firms interviewed), while others aimed to strengthen their image (7 firms). A second group of exhibitors aimed to establish new customer contacts (18 firms), instead of immediately selling products (Table 3).⁶ Chinese exhibitors were aware that customer relationships need to be built over time and that the fair was an important step in this process. The owner of a small machinery firm explained: "We want to go step by step. We introduce ourselves, and make the customer believe that our quality is o.k. – and step by step and demonstrate the machine."

⁶ This confirms findings from a survey of 123 small and medium-sized export exhibitors by Fu et al. (2007), which indicated that non-selling functions, such as finding out about customer preferences and probing industry dynamics, were objectives of more than 70% of those exhibitors that were satisfied with their trade fair performance. Consistent with their study, sales functions were not very important in our investigation (Table 1).

Third, different from major exhibitions such as Hannovermesse, the exhibition halls were not primarily set up for passive showcasing. Many firms had their equipment and machines in operation to directly demonstrate their performance. As a consequence, many parts of the exhibition halls at MWCS were quite noisy, and it was often difficult to understand what others were saying. All in all, parts of the exhibition halls had the atmosphere of an actual factory or workplace associated with the smells of oil and fumes and with heat development. At the same time – similar to European and North American events – the halls had stages with loud live music, fashion shows and other events to create a spectacle and make people stay. All of this was expression of a contest over the use of exhibitions space between different participant groups.

Fourth, MWCS was not an export fair. A large proportion of the visitors originated from the Yangtze Delta region, while exhibitors came from across China with a substantial proportion of international exhibitors (Table 2). Yet, it would also be misleading to characterize MWCS as an import fair. Most firms pointed out that the fair would provide them with an excellent overview of competition. While some firms, as one manager expressed it, "... already know all competitors in China", others used this event to reflect about their own product and corporate characteristics. The owner of a small Chinese producer recalled his impressions as follows: "I have already looked around at our competitors' exhibits and found many competitors provide some better products. I felt the pressure of competition."

Fifth, aside from the official trade fair schedule, another hidden and unofficial exhibition existed. This developed in the hallways of the exhibition space. Here, we encountered traders, representing Chinese firms from different, often distant parts of the country, who were walking through the exhibition halls looking out for potential overseas customers. As one of the authors was easily identifiable as non-Chinese, he was regularly approached by such traders. They were usually accompanied by one or two employees with larger trollies, in which they stored colorful

advertising materials, as well as samples of the products they offered for sale. They viewed us as international customers and acted as knowledge brokers to catch our interest and connect with their clientele.⁷ The firms they represented were interested in export activities, but wanted to avoid the costs of officially participating in the fair. Possibly, these included firms that had participated in former years but stopped doing so, as the number of foreign visitors was too low and had apparently decreased (China International Industry Fair 2009; 2011).⁸

In sum, the nature of conversations and interaction at MWCS was similar to that at European or North American trade fairs. It seemed though that the classical roles of exhibitors and visitors were quite inter-mixed. On the one hand, exhibitors spent a substantial amount of time looking through other exhibits in search for potential business or partners, and made direct contact with competitors (Table 3). Several interviewees mentioned that contact with competitors was generally friendly, partly because competitors were often also engaged in complementary business and operated as suppliers or customers in these segments. On the other hand, the exhibition hallways were used by traders who, hidden as visitors, represented small and mediumsized producers from other Chinese regions to advertise their products to foreign visitors. The corresponding knowledge flows in either case were remarkably similar, supporting Maskell's (2012) conceptualization that implies strong knowledge-exchange/creation processes at trade fairs in China.

Exhibitors at MWCS were generally happy with the organization of the trade fair and had few complaints (Table 3). Some complained about too few Chinese decision-makers and

⁷ Within a two-day period, we were approached by about 20 such traders in the MWCS exhibition halls, 3 of which we were able to interview.

⁸ The presence of traders may also be an expression of trade fairs in a formative stage, as many firms still rely on alternative forms of trading, such as trade agents and travelling salesmen.

professionals at the fair but this appeared to be a general problem of Chinese fairs, rather than one specific to MWCS (Metalworking and CNC Machine Tool Show 2011). As a senior manager of a Belgian firm mentioned, many Chinese decision-makers would not recognize the importance of trade fairs and "often ... do not come to the show".

4.2 Information & Communication Technology Show (ICTS), Shanghai

Although taking place in the exhibition hall adjacent to MWCS, ICTS was a completely different event with much fewer exhibitors and visitors (Table 2). ICTS was a new trade fair in the field of information and communication technologies, launched in the context of CIIF for the first time in 2010 (Information & Communication Technology Show 2010). First, compared to MWCS the exhibition space was much quieter, since there were no machines in operation. Second, the exhibition hall appeared very spacious with few people wondering around and even fewer people approaching the exhibitors. This did not change during the course of the fair. Third, the set of exhibitors appeared very heterogeneous without a clear focus. In an apparent attempt to fill the exhibition hall, the organizers had allowed exhibits that were hardly related to the themes of the show and primarily had the character of product advertisements, for instance booths advertising cellular phones with new contracts or automobile firms showcasing their latest models. Fourth, in wandering around the exhibits and observing other attendees, it appeared that relatively few people had entered CIIF to specifically explore the information and communication technology exhibits, but participated in another fair and just came to see what ICTS was about.⁹

⁹ Another event at CIIF, the Scientific & Technological Innovation Show (STIS), was similar. STIS hardly had the character of a trade fair and appeared to be primarily a platform for universities and research organizations to demonstrate their accomplishments, as well as for state-owned firms to 'show face'.

Overall, this setting did not stimulate intensive knowledge exchange between the exhibitors and visitors (Table 3). One exhibitor expressed in the following way what also others thought about the audience: "Many of them are not very professional. In fact, many of them do not know us very well." Another added frustrated: "... so [the fair] is meaningless!" Communication between exhibitors and visitors was neither very specific nor intensive. A typical response of an exhibitor regarding interaction with customers was: "No, we have not learned anything [from customers]." Similar comments were given with respect to interaction with competitors. One Chinese producer criticized that the "... fair is totally driven by the government. Maybe ... [other] halls are better, but look at our hall. It is full of all kinds of companies. It should be more professional."

Not surprisingly, many of the exhibitors had a negative impression of ICTS and described it as a disappointing event. Most firms emphasized that they had come to the fair to find potential new customers (21 of 24 firms interviewed), promote the firm/brand (7 firms) and present products (8 firms) (Table 3). To launch the fair, representatives of the organizers and government had actively recruited participants, especially larger and state-owned firms. Among the recruited participants were also representatives of industrial parks who did not present products and technologies but simply introduced their parks. Clearly, numerous exhibitors had come with rather different expectations influenced by the organizers' prior announcements. Overall, many firms had negative feelings about the event and, as a consequence, people had many complaints or were less willing to give us an interview. It seemed that ICTS was primarily set-up to extend the scale and scope of CIIF as a broad multi-sector trade show, similar to the flagship fair Hannovermesse (Schuldt and Bathelt 2011). In sum, the multi-sectoral concept did not function well. The attending exhibitor and visitor groups were too heterogeneous to allow for relationship-building, market penetration or product-related learning at ICTS.

4.3 China International Exhibition on Gases Technology, Equipment and Application (IG China), Chengdu

When attending IG China in Chengdu, we expected a different trade fair from the ones studied in Shanghai that was less developed. However, we were surprised with what we found. Not only were the facilities and infrastructure around the trade fair well-designed, also the organization of the event itself was professional and positively received by most interviewees. Even though the fair had a different character from the other trade fairs investigated, its set-up was not much different from trade fairs in Europe or North America. Aside from this, the entire exhibition complex was "buzzing" with several other trade fairs/conventions taking place at the same time, each one occupying one exhibition hall.

IG-China is an annual trade fair of the gas industry with a particular focus on the equipment side that took place in 2010 in Chengdu for the first time (Cockerill 2010). Chengdu was chosen because of its increasing importance in the gas industry with a fast-growing urban economy, yet some exhibitors from northern and eastern regions in China complained about the large distances they had to travel. Some Chinese market leaders did not participate in the fair, supposedly related to the locational choice. Aside from the location though, the organizers made substantial efforts to organize the event professionally, extend the fair to include a wider portion of the production chain and make sure that there was a constant flow of visitors. Visitors were actively recruited to attend IG China and bus tours for firm representatives organized, especially in the opening days. The final day was much quieter with Chinese exhibitors already removing their exhibits.

In general, IG China was not a regional fair, as we had expected, but an event of national importance with exhibitors and visitors from all parts of China. During the event, we hardly noticed foreign visitors, except for few Indian representatives. Only about 9 % of the exhibitors

originated from other countries, such as Germany, the USA and Russia (Table 2). It took us a while to understand that the nature and core focus of the event was different from what we anticipated. Although some sales contracts were apparently signed or prepared during the event, IG China was clearly not a sales fair. Neither did exports nor imports play a significant role. Since IG China took place in a mature industry context with many long-established firms that knew each other's product offerings extremely well, innovation did not play a great role either (Table 3). At closer investigation, three groups of exhibitors were identified that displayed different interaction patterns:

The first group of exhibitors (about half of the firms interviewed) were closely related to the core of the gas equipment business. They evaluated the fair as a rare specialized event that enabled them to get together with their core customers. A foreign manager suggested: "This fair is a good way to access the Chinese market." Nonetheless, most interviewees agreed that this was not a place to generate new business, which would usually require a much longer preparation. An important motivation of the exhibitors was to reinsure existing customers about their ongoing relationships. One senior engineer of a Chinese equipment maker described this as follows: "The first thing is to demonstrate the firm, and then we make friends with the new customers. But after many times of participation, it is not easy to find new customers. So, the main purpose is to demonstrate ourselves. When old friends see us, they say: 'O.k., you are still alive!'." The firms used this event also to update their knowledge about competitors, systematically visited other booths and talked to the corresponding personnel. Generally, they knew the competitors and many of their representatives. As firms often had product portfolios that were partly overlapping, competitors were also suppliers and/or customers. As a result, the exhibitors at IG China were at the same time important visitors. One Chinese executive explained: "30 % of the exhibitors are our customers. We mainly introduce the new products to them." This group of exhibitors

recognized the importance of repeated meetings and updates in deepening existing social relationships and generating trust (e.g. Björkman and Kock 1995).

The second group of exhibitors (a quarter of the firms interviewed) included those foreign firms that knew the Chinese market for a long time and did not expect much in terms of new business or knowledge about innovation, but were primarily there "to show face". One foreign manager described the fair as "the window for people who know the market". Firms emphasized that this was helpful in developing and extending social relations both with existing customers, as well as with competitors. Several managers described the network-building character of IG China and suggested that the relatively isolated suburban location and the nearby hotels generated a context where exhibitors would constantly run into one another, both in- and outside the exhibition halls. As one Chinese executive described: "Old customers just come here and chat about good performance of our products, and show the will to keep in touch." Relationshipbuilding also included competitors, as one executive emphasized: "... we view our competitors as partners. Although every firm has some concerns, the improvement of the industrial chain is more important [than fierce competition]." One senior manager of a foreign firm explained how this fair was used as an occasion to deliberately improve relations with a close competitor through mingling during after-fair hours and having joint dinners. This led to a more relaxed atmosphere between representatives of both firms.

The third group of exhibitors (another quarter of the firms interviewed) were outside the main focus of the trade fair and hoped that the diversification of the fair's technology focus would attract a wider audience. In contrast to what was suggested by the fair organizers, however, they hardly met relevant customer groups and had little business during the fair. They thought IG

China was less useful for them and some questioned they would come again. They were also more negative about the concept of the fair, which was otherwise well received (Table 3).¹⁰

The findings about the nature of the event were supported by the fact that none of the customer groups described themselves as cost-oriented. They emphasized quality/brand (9 of 33 firms interviewed) or performance-price ratios (12 firms) as key to their success (Table 3). Their main goals were to look for new/established customers (12 of 33 firms), promote their image (12 firms) and improve/extend customer relations (7 firms). The networking potential realized during IG China was particularly useful for small and medium-sized firms and, according to one interviewee, helped stabilize their market positions. Also, established firms enjoyed the specialized character of the show which provided up-to-date knowledge about market developments.

Overall, the three trade fairs investigated turned out to be quite different from what we expected. These were not primarily sales events or shows with a specific import or export focus, but modern professional trade fairs that relied on complex knowledge-circulation practices and processes of relationship-building/maintenance, albeit with rather different focus. This will be further discussed in the next section with respect to the four hypotheses initially formulated.

5. Discussion: Catching-up of Chinese Trade Fairs

The goals of this paper are to explore the nature of information and communication patterns at large national/international trade fairs in China, compare them with foreign trade fairs and explore their variability. While previous studies suggest that Chinese trade fairs are less

¹⁰ The different evaluations of exhibitor groups were due to varying expectations, strategies and market positions. Negative experiences should be viewed as an indication of formative trade fair ecologies, rather than the result of disorganization.

developed and differ from leading European and North American fairs, our hypotheses propose that large trade fairs are meanwhile characterized by sophisticated knowledge ecologies, as new modern facilities have been set up and experienced organizers been integrated. This has been tested in this research through qualitative investigations of two trade fairs in Shanghai and one in Chengdu in 2010. The main findings of this research regarding the four hypotheses originally formulated can be summarized as follows:

(i) The results of our interviews with exhibitors support hypothesis H1, suggesting that innovation is less important at the Chinese fairs investigated, compared to European flagship fairs. While market access/penetration are important goals of trade fair participation, Chinese fairs are still far from becoming trend-setters in innovation. Since foreign lead firms in global production contexts try to maintain control over design processes (e.g. Humphrey and Schmitz 2002) and since the Chinese market for industrial products is still lagging behind, international trade fairs are not centered on leading-edge technologies. We found, however, that knowledge exchanges about innovation trends (especially at MWCS) and aspects of relationship-building (at IG China) were at the core of these events. At MWCS, for instance, 80 % of the firms answering (28 of 35 firms) received ideas for innovation from their customers, while 78 % of the firms at MWCS (29 of 37 firms) and 64 % at IG China (7 of 11 firms) actively tried to find new business partners (Table 3). Comparing this with studies of past events may suggest that complex exchanges of new knowledge at Chinese trade fairs have gained in importance and will continue to do so. Following Maskell's (2012) conceptualization of remote knowledge acquisition practices, we expect that trade fairs will become key events for knowledge creation in China, due to substantial uncertainties with respect to whom to approach where and for which kind of knowledge.

(ii) Hypothesis H2 was also supported in this research. Direct product sales and contract negotiations took place during the trade fairs investigated, but were less important than implied in

the literature.¹¹ Although trade still played a significant role for some of the firms interviewed (especially at MWCS), aspects of knowledge generation and relationship-building were more important for the majority of firms and more significant than previous studies suggested. At MWCS, 26 of 45 firms interviewed were specifically engaged in knowledge exchanges about product features and customer needs. At IG China, knowledge exchanges were equally important, but more broadly oriented, encompassing product features (5 of 33 firms), customer needs (5 firms), networks (5 firms) and technology trends (5 firms) (Table 3). These findings may be an indication of dynamic processes, through which direct sales lose in importance while knowledge exchanges become more important.

(iii) Further, this study found that the purpose and the nature of communication and interaction processes varied substantially between the events studied, suggesting that these events played different roles within their respective industry contexts. While MWCS was characterized by diverse knowledge circulation practices (with most firms intensively interacting with customers and competitors), ICTS involved very little interaction at all (with hardly any direct contacts), and IG China was strongly oriented towards relationship-building (with genuine interaction about networks, relationships and industry trends) (Table 3). This confirmed hypothesis H3 that trade fair ecologies in China are quite heterogeneous, depending on their sectoral/geographical contexts. It appeared that participants of general industry fairs (such as MWCS) aimed to find new partners during these events to extend their networks, while participants in specialized fairs (like IG China) paid more attention towards deepening/maintaining existing networks and relationships.

¹¹ Of course, we should keep in mind that all trade fairs have a market-orientation and aim to stimulate sales activities at some point in the future (Rinallo and Golfetto 2011).

(iv) In contrast with the first three hypotheses, we were not able to confirm hypothesis H4. Our study clearly showed that trade fairs in latecomer cities at inland locations are not automatically less developed or less well-organized than events in the early trade fair centers in coastal regions. For instance, more than 80 % of the firms interviewed both at MWCS in Shanghai (29 of 36 firms) and at IG China in Chengdu (25 of 30 firms) used these fairs in a similar fashion to receive an overview of their competition and were equally pleased with the quality of the fairs (Table 3). Since the early trade fair cities in coastal areas are better connected to the global economy in terms of transportation and communication infrastructure, they likely have a higher international participation than trade fairs in inland cities. While we can thus expect that more leading firms from Europe or North America participate in coastal city trade fairs, trade fairs in inland China likely have a higher attendance of firms from close-by countries, such as India or Russia. In any case, latecomers learn from the experience of early trade fair centers and pick up best practices in organizing such events, thus reducing the gap between early trade fair centers and latecomers.

6. Conclusions: Diverse Trade Fair Ecologies

While the results about the structure of Chinese trade fair ecologies presented in this paper might not be surprising for industry observers who regularly participate in such events, they draw a rather different picture from that which exists in the literature. This research shows that China has experienced a strong catch-up process, not only in terms of economic development but also with respect to trade fair development. Our interviews with trade fair participants clearly indicate that China has a well-developed trade fair business with many professionally organized events characterized by diverse interaction patterns and complex communication and knowledge exchanges – not much different from similar events in highly-developed economies in Europe

and North America. In this context, the three trade fairs investigated in this research represent three distinct types of trade fairs:

(i) ICTS in Shanghai probably comes closest to the type of trade fair that has been described in former literature as not well-functioning and disorganized. Indeed, the way of how ICTS was set up did not lead to meaningful exchanges between exhibitors and visitors, and most interviewees evaluated the event quite negatively. Yet, as some observers commented, the organizers viewed this event as important in the context of the wider multi-sector trade show CIIF and will modify the concept of ICTS in the years to follow. This type of trade fair can be viewed as a transitionary type that may be characteristic of trade fairs in an economy with a developing trade fair business.

(ii) IG China in Chengdu can best be described as a relationship-building type of trade fair where an industrial community gets together to discuss the technological progress and environmental changes in their field and to develop existing inter-firm relations in the industry further. As in the next type of trade fair, actual contractual arrangements appear to be less important in such context.

(iii) MWCS in Shanghai represents a type of knowledge-based trade fair characterized by complex knowledge flows about new products, processes, technologies and markets. This type of trade fair has developed in some of the leading industrial and/or political centers of the country but also spreads to other Chinese cities with latecomer status. Trade fairs of this type have a sophisticated knowledge ecology, not much different from that at large European and North American events.

Whereas other trade fair types may also exist in China, most events are characterized by substantial Chinese attendance and have thus a strong national focus. Because of the large size and fast development of the Chinese economy, the majority of participants originate from within

China (even if trade fairs, such as MWCS, have a significant share of foreign exhibitors).¹² While we expect that global flagship fairs may develop in the future under the current growth conditions, even those events would likely be dominated by national participation. At the same time, there is a sheer endless number of smaller local trade fairs that serve a variety of different purposes and support regional economic development and trade. Little is known about these events. They are in a process of ongoing changes, relocations, consolidations and are faced with the rise of competing events in other places. The dynamic process of trade fair development in China is increasingly driven by industry associations and local governments, often involving experienced foreign organizers, and thus reducing the influence of the central government. This has produced a large variety of local and national/international, sales- and knowledge-driven, privately-organized and state-planned Chinese trade fairs with different goals. A strong research agenda will be necessary in the future to understand the regional impacts and regional variation of these events, their different roles in supporting regional development and their functions in establishing trans-local economic relationships and creating linkages within global production contexts.

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¹² A rare exception is the China Import and Export Fair in Guangzhou. In the spring fair 2012, 46.1 % of nearly 210,000 visitors came from outside Asia – 38,100 of which from Europe and 34,200 from North America (Canton Fair Online 2012).

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Table 1: Development of Convention Centers in China by Location (City) and Size (IndoorExhibition Space \geq 50,000 m²), 2009-2011

(Sources: Wang and Guo 2012; Guo 2011; 2012)

City/province	Number of convention		Total indoor exhibition space (m ²)			
	2009	centers	2011	2009	2010	2011
D		2010	2011			2011
Beijing*	3	2	2	236,600	173,000	173,000
Chengdu/Sichuan	1	2	2	55,000	165,000	143,000
Dalian/Liaoning*	1	-	-	79,300	-	-
Dongguan/Guangdong	1	1	1	100,000	100,000	100,000
Fuzhou/Fujian	-	1	1	-	80,000	80,000
Guangzhou/Guangdong	5	5	5	474,600	684,400	684,400
Guiyang/Guizhou	-	1	1	-	54,000	54,000
Hangzhou/Zhejiang	2	2	2	121,000	121,000	121,000
Harbin/Heilongjiang	-	1	1	-	56,500	56,500
Hefei/Anhui	-	1	1	-	120,000	120,000
Hohhot/Inner Mongolia*	1	-	-	57,000	-	-
Jinan/Shandong*	2	-	-	190,000	-	-
Jinhua/Zhejiang	1	2	2	100,000	193,200	193,200
Kunming/Yunnan*	1	-	-	70,000	-	-
Nanchang/Jiangxi*	1	-	-	75,000	-	-
Nanjing/Jiangsu	1	1	1	72,000	110,000	110,000
Nanning/Guangxi	1	1	1	80,000	65,800	65,800
Ningbo/Zhejiang	1	1	1	51,000	51,000	51,000
Qingdao/Shandong	-	1	2	-	59,000	179,000
Shanghai	1	3	3	126,500	271,800	345,500
Shenyang/Liaoning	-	1	1	-	105,200	105,200
Shenzhen/Guangdong	1	1	1	105,000	105,000	105,000
Shijiazhuang/Heibei	_	1	1	-	100,000	60,000
Suzhou/Jiangsu	-	2	2	_	131,000	131,000
Taizhou/Zhejiang*	1	_	_	65,100	-	
Tianjin	_	_	1	-	-	56,200
Weifang/Shandong*	2	1	1	121,800	70,000	70,000
Weihai/Shandong*	1	-	-	80,000	-	-
Wuhan/Hubei	-	_	1	-	-	150,000
Xiamen/Fujian	1	1	1	80,000	60,000	60,000
Xian/Shaanxi	-	1	1	-	66,000	66,000
Xianyang/Shaanxi*	1	-	-	66,000	-	-
Zhengzhou/Henan	1	1	1	65,000	74,000	74,000
Zibo/Shandong	-	1	1	-	60,800	60,800
Total	31	35	38	2,470,900	3,076,700	3,414,600
10141	51	55	50	2,470,900	5,070,700	5,414,000

Note: * In these cities, the number of convention centers decreased between 2009 and 2011, since some facilities were restructured for different uses.

Table 2: Number of Exhibitors and Visitors by Origin and Exhibition Space at SelectedChinese Trade Fairs, 2010

(Sources: China International Exhibition on Gases Technology, Equipment and Application 2010; China International Industry Fair 2011; Information & Communication Technology Show 2010a; 2010b; Metalworking and CNC Machine Tool Show 2011)

Trade fair indicator	CIIF, Shanghai	MWCS, Shanghai	ICTS, Shanghai	IG China, Chengdu
Exhibition space	103,500 m ²	$34,500 \text{ m}^2$	11,500 m ²	12,000 m ²
Exhibitors	1,653	384	188	220
Overseas exhibitors	34 %	35 %	16 %	9 %
Important countries of origin of overseas exhibitors	Japan, Germany, Taiwan, USA	n.a.	n.a.	Germany, USA, Russia
Visitors	116,800	n.a.	n.a.	10,000
Overseas visitors	Few	Few	Negligible	3 %

Notes: CIIF = China International Industry Fair; MWCS = Metalworking and CNC Machine Tool Show; ICTS = Information & Communication Technology Show; IG China = China International Exhibition on Gases Technology, Equipment and Application; n.a. = not available.

Table 3: Interaction and Knowledge-Circulation Practices of Exhibitors at Selected ChineseTrade Fairs, 2010

Indicator	MWCS, Shanghai (n = 45)	ICTS, Shanghai (n = 24)	IG China, Chengdu $(n = 33)$	
- Main goals of participation	 Promote brand (13) Introduce new products/machines (9) Establish new customer contact (18) Promote firm's image (7) Establish market presence in China (4) 	 Promote brand (3) Promote/present products (8) Find potential customers (21) Promote firm's image (4) 	 Look for customers (11) Promote image (12) Establish market presence in China (5) Improve customer relations (7) Check out competitors (4) 	
- Main competence of exhibitors	 High quality (9) High quality & brand/innovation (12) High quality/medium price (13) Medium quality/low price (5) 	 High-quality & brand/innovation (1) High-quality & technology (10) Quality & price (4) 	 High quality (3) High quality & brand/innovation (9) Quality & price (12) 	
- Areas of knowledge exchange with customers	 Innovations (4) Features of exhibits (26) Customer needs (16) Price aspects (5) 	 Generic info/exchange business cards (8) Features of exhibits (3) No exchange possible (4) 	 Features of exhibits (5) Customer needs (5) Customer networks (5) Sector/tech trends (5) 	
- Ideas for innovation from customers?	- Yes (28)	- Yes (2)	- Yes (12)	
	- No (7)	- No (9)	- No (7)	
- Overview of competition at the fair?	- Yes (29)	- Yes (4)	- Yes (25)	
	- No (7)	- No (10)	- No (5)	
- Are competitors' exhibits inspected?	- Yes (34)	- Yes (5)	- Yes (24)	
	- No (9)	- No (14)	- No (4)	
- Is there any direct competitor contact?	- Yes (27)	- Yes (2)	- Yes (13)	
	- No (9)	- No (12)	- No (2)	
- Are suppliers' exhibits expected?	- Yes (12)	- Yes (1)	- Yes (7)	
	- No (19)	- No (9)	- No (6)	
- Do you look for potential new partners?	- Yes (29)	- Yes (5)	- Yes (7)	
	- No (8)	- No (12)	- No (4)	
- Suggestions to improve the trade fair	 No suggestions (13) Too few professionals (4) Few foreign firms (4) 	 No suggestions (5) Other fairs better (6) Too few competitors (5) 	- No suggestions (12) - Too few visitors (4)	

Notes: (i) Numbers in brackets indicate the number of responses. (ii) Categories displayed were derived from open-ended questions through iterative codification. (iii) MWCS = Metalworking and CNC Machine Tool Show; ICTS = Information & Communication Technology Show; IG China = China International Exhibition on Gases Technology, Equipment and Application.

