

## Entrepreneurship research in China: internationalization or contextualization?

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Entrepreneurship is an emerging research field that has received much scholarly attention in recent decades. Given the global scope of this attention, this article compares entrepreneurship research in China with that in the USA and Europe. Based on publications in Social Science Citation Index and Chinese Social Science Citation Index databases over the past 10 years, we use bibliometric method to analyse entrepreneurship research in different regions. Our analysis shows that, on the one hand, entrepreneurship research in China has much in common with such research in the USA and Europe. In addition to borrowing ideas from Western researchers, Chinese entrepreneurship researchers study similar themes and use similar theoretical foundations. On the other hand, Chinese contextual environment helps preserve the uniqueness of its entrepreneurship research. Researchers deal with several context-specific topics such as *guanxi*, i.e. networks of interpersonal relationships, and its influence on entrepreneurship. We further discuss ways for Chinese researchers to explore the distinct context and contribute to the global literature.

**Keywords:** entrepreneurship research; China; bibliometric analysis; context; similarity; uniqueness

### 1. Introduction

Entrepreneurship is an emerging research field that has received considerable worldwide scholarly attention in recent decades (Bruton, Ahlstrom, and Obloj 2008; Busenitz et al. 2003; Welter and Lasch 2008). While scholars in the USA and Europe dominate the field (Davidsson 2013), researchers in other parts of the world are taking an increasing interest in entrepreneurship research (Martin Meyer et al. 2014; Zhai, Su, and Ye 2013). Although they are less recognized, researchers in emerging economies such as China, where the activities of local entrepreneurs fuel economic growth and development, have begun to contribute to the field by establishing a regular presence in international journals and conferences.

Along with the international expansion of entrepreneurship research, scholars have begun to reflect on the similarities and differences in entrepreneurship research across regional borders and possibility of mutual learning (Aldrich 2000; Brush, Manolova, and Edelman 2008; Huse and Landström 1997; Landström 2005). The internationalization of entrepreneurship research has been discussed in special issues of journals such as

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*Entrepreneurship Theory and Practice* (2008) and *Entrepreneurship and Regional Development* (2013). These discussions have highlighted two contradictory trends:

On the one hand, similarities in research themes and methods appear across regions. International journals and conferences facilitate the internationalization of research conversations, promote the dissemination of knowledge and encourage scholarly cross-regional collaboration (Aldrich 2000). This mutual borrowing and learning tends to draw entrepreneurship researchers from different regions closer. Several researchers have documented this development, for instance Gartner (2001) and Gregoire et al. (2006) have noted that researchers engage in dialogues about a specific set of problems and issues and have similar beliefs about the relevance of certain methods.

On the other hand, entrepreneurship research seems to have its own characteristics in each region. It has been documented in the literature that business, historical, social, spatial and institutional aspects of context can be very different in different regions (Trettin and Welter 2011; Welter 2011; Zahra and Wright 2011). Researchers argue the varying contexts provide substantial potential to enrich and diversify social science research such as management, strategy and entrepreneurship (Klaus Meyer 2006; White 2002; Zahra 2007). Due to different social-cultural contexts within which entrepreneurial activities take place, researchers studying in these contexts are inclined to focus on context-specific problems and topics and to use context-appropriate research methods (Landström 2005). For instance, analysis shows that European scholars tend to focus more strongly on contextual differences and are more open to different methodologies (Huse and Landström 1997); they prefer to concentrate on small businesses, compared to entrepreneurship, and to use aggregate-level analysis (Brush, Manolova, and Edelman 2008). European scholars also tend to do more fieldwork and to use more qualitatively analytical approaches than their US counterparts (Aldrich 2000; Wiklund et al. 2006).

In addition to above contradictory findings, existing entrepreneurship research has focused almost exclusively on North American and European research settings, with rather limited attention paid to emerging economies (Aldrich 2000; Brush, Manolova, and Edelman 2008; Bruton, Ahlstrom, and Obloj 2008; Huse and Landström 1997; Terjesen, Hessels, and Li 2013). This omission is surprising, especially when we consider the increasing importance of such economies, the role of entrepreneurship in their economic development and their very different contexts. We can expect that analysis of entrepreneurship research in these economies will greatly add to our knowledge as well as completeness of the international picture of entrepreneurship research.

Thus, this article compares entrepreneurship research in China, a typical emerging economy, with that in the USA and Europe.<sup>1</sup> This article has three aims: first, based on established contextual framework, we attempt to delineate the Chinese context for entrepreneurial activities and entrepreneurship research; second, we examine the similarities and uniqueness of Chinese entrepreneurship research compared with that in the USA and Europe, and explore how entrepreneurship research in China has been influenced by studies in the USA and Europe as well as the unique context of China; and, finally, we point out the way how entrepreneurship research in China can move forward and contribute more to the international conversation.

To fulfil the three aims of our study, we used bibliometric methods for our 10-year (2003–2012) comparison of Chinese entrepreneurship research with that in the USA and Europe. We used the Social Science Citation Index (SSCI) and the Chinese Social Science Citation Index<sup>2</sup> (CSSCI) databases to locate our data.

This article contributes to the literature in the following ways: (1) Our study makes the first attempt to describe Chinese context and to demonstrate the linkage between context and entrepreneurship research. Given the apparent differences in context, we can expect that the examination of Chinese entrepreneurship research would greatly add to our knowledge and existing literature. (2) Our study is also distinguished by its focuses on comparing entrepreneurship research in China, a typical emerging economy, with that in Western societies. Furthermore, our use of the CSSCI database allows us to better explore the Chinese researchers' themes and interests. (3) Based on empirical data and bibliometric methods, we go beyond subjective observation and provide systematic and empirical evidence for the similarities and uniqueness of Chinese entrepreneurship research.

This article is structured as follows. After this introduction, we analyse the Chinese context for entrepreneurship research and put forward our assumptions about Chinese entrepreneurship research compared with that in the USA and Europe. In Section 3, we provide a description of data collection as well as the co-citation analysis approach we use. Next we present the results of our analysis and then compare entrepreneurship research in China with that in the USA and Europe. Finally, we conclude by reflecting on the unique contributions Chinese researchers have made to the field, and suggest ways they can further contribute to the global entrepreneurship discussion.

## **2. The Chinese context**

With the rapid internationalization of entrepreneurship research, various studies have compared research themes, methods and conceptual focuses of entrepreneurship research in the USA and Europe. As a result, the context of these two developed economies has been quite well documented (Aldrich 2000; Audretsch et al. 2002; Brush, Manolova, and Edelman 2008; Bruton, Ahlstrom, and Obloj 2008; Davidsson 2013; Down 2013; Hisrich and Drnovsek 2002; Huse and Landström 1997; Landström 2005). However, to the best of our knowledge, no existing study demonstrates Chinese context for entrepreneurship research. Thus, in this section, we aim to fill this gap by providing a broad picture of China: internationalization of Chinese researchers which may make Chinese entrepreneurship research similar to that in Western countries, and special characteristics of Chinese context which may make Chinese entrepreneurship research different. And in Section 4, we will further validate our assumptions by bibliometric analysis.

### **2.1. *Joining the international bandwagon***

The history of entrepreneurship research is much shorter in China than in the USA and Europe (Zhai, Su, and Ye 2013). Before the 1980s, the Chinese Government, with its strict centralized economic policy, actively suppressed private enterprise. As a consequence, small business and entrepreneurship research received scant attention in this period (Chen, Fu, and Bai 2008). Entrepreneurship research in China did not begin until the late 1990s (J. Li and Matlay 2006). However, unlike entrepreneurship research in the USA and Europe, entrepreneurship research in China did not start from scratch.<sup>3</sup> Instead, Chinese entrepreneurship research benefitted from a well-established knowledge platform, a fairly good infrastructure for knowledge diffusion (journals, conferences, etc.) and a large and dedicated community of researchers in Western countries. Hence, Chinese researchers were greatly influenced by the existing body of entrepreneurship knowledge in terms of underpinning concepts and theories, research interests and, to some extent, research

methods. This influence may have caused the similarities between Chinese and Western entrepreneurship research.

Also, Chinese researchers now have more and more opportunities to communicate with worldwide researchers. In recent decades, entrepreneurship field has grown from small isolated groups of scholars to a more international community focusing on various aspects of entrepreneurship (Aldrich 2000). Come with it, research collaboration has increased among scholars, including Chinese scholars, who now have more opportunities to meet at conferences and workshops where they can communicate formally and informally. Journal articles, books and international scholar exchanges also exert a powerful influence on Chinese entrepreneurship research (Landström 2005). These publications and exchanges facilitate the diffusion of research methods and designs, and provide opportunities for research topic/method borrowing by scholars worldwide (Aldrich 2000).

Furthermore, according to the Chinese Scholarship Council, each year 8500 Chinese doctoral students and post-doctoral fellows are sponsored to study abroad (mainly in Western countries). This cross-national education, which plays an important role in disseminating knowledge from Western countries to China, creates the potential for the greater internationalization of Chinese entrepreneurship research.

At the same time, a growing number of Chinese universities start to compete on the international arena for rankings. As a result, more and more Chinese researchers are required to publish in top international journals, which are anchored in Western countries. Publishing in these top-end journals is usually associated with evaluation, promotion and professional prestige of individual scholars, and sometimes, even with graduation of PhD students (Wiklund et al. 2006; Xiaohua Yang and Terjesen 2007). In order to successfully publish their research, Chinese researchers need to meet the common standard and institutionalized norms of these top journals, just like their Western counterparts. As a result, Chinese entrepreneurship research may become similar to that in Western countries.

## **2.2. Long-existing uniqueness**

In addition to internationalization of Chinese entrepreneurship research that may result in similarities, Chinese context also has its own distinctiveness. As Welter and Lasch (2008) stated, entrepreneurship is not only a scientific phenomenon but also a societal phenomenon. Therefore, different cultural, social and economic contexts can influence entrepreneurship as well as entrepreneurship research. Thus, the distinctiveness of Chinese context may result in differences between Chinese and Western entrepreneurship research.

In an exploration of the heterogeneity of contexts in which entrepreneurial activities occur, Welter (2011) offers a coherent framework with several dimensions, including the business, historical, social, spatial and institutional aspects of context (see also Trettin and Welter 2011). Welter also discusses the importance of social, institutional and spatial contexts and their linkage with entrepreneurship. Zahra and Wright (2011) use a similar framework to analyse the context for entrepreneurship. Since the context in the USA and Europe has been well documented in the literature, and because China has long been known for its special social and institutional environment, in this section we focus on demonstrating China's social and institutional contexts.

### **2.2.1. Unique social context of China**

According to Welter (2011), social context refers to human relationships at the micro-level as well as the structure, density and roles of various connections in one's social network.

In China's traditional Confucian culture, individuals are strongly related to their significant others (Bian and Ang 1997). The Confucian culture also provides a cultural foundation, which makes networks of interpersonal relationships (*guanxi* in China) extremely important. For these reasons, China is a special place for examining social context and its effect on entrepreneurship (Lee and Anderson 2007; Park and Luo 2001). In China, *guanxi* operates in concentric circles. Close family members are at the centre; distant relatives, classmates, friends and acquaintances are at the periphery, spaced according to the distance of the relationship and the degree of trust (Mayfair Yang 1994).

More recently, Fan (2002) categorized *guanxi* into two types: natural relationships, which emphasize the family embeddedness and include connections with family members and relatives, and acquired relationships (e.g. friends). Confucian culture suggests that family is the basic social unit, and kinship is an individual's most important social relationship (Tsui, Farh, and Xin 2000). Family ties, which are characterized by unconditional loyalty, involve social obligations that are not based on reciprocity (Tsui, Farh, and Xin 2000). However, because people cannot rely only on family members and relatives in everyday life, acquired relationships serve as a different mechanism that creates reciprocal obligations. In this type of *guanxi*, a connection means the continued exchange of favours and the obligation to respond to requests for assistance (Tsang 1998). In China today, both types of *guanxi* have important implications for entrepreneurial activities.

### 2.2.2. *Unique institutional context of China*

Institutional context can be defined as the 'rules of the game', which include formal institutions such as laws and regulations as well as informal institutions such as social norms and attitudes (North 1990; Trettin and Welter 2011; Welter 2011; Zahra and Wright 2011). China has a unique institutional context for entrepreneurship that differs greatly from that of developed countries. Before 1988, the Chinese Government did not permit entrepreneurial firms (Lu and Tao 2010), and as late as in the beginning of twenty-first century, the Chinese Government took no active role in establishing a favourable institutional framework for the healthy growth of private enterprises (Naughton 2007; Zhou 2009). However, entrepreneurship in China developed so rapidly thereafter that scholars even describe its growth as a 'puzzle' (Zhou 2011). From this time forward, various regulations and laws were introduced intended to protect and promote entrepreneurship (e.g. Small and Medium Enterprises Promotion Law in 2003) (Lu and Tao 2010; Zhou 2011).

However, unlike institutions in Western countries, many institutions in China are very weak and even unsupportive of entrepreneurship (Busenitz, Gomez, and Spencer 2000; Puffer, McCarthy, and Boisot 2010). For instance, in China, there are still institutional constraints such as industrial barriers<sup>4</sup>, difficulties in getting access to critical resources and weak property rights (Zhou 2011). In addition, Chinese institutions change rapidly. This poses different set of challenges for Chinese entrepreneurs compared with their counterparts in developed economies where the environments are generally supportive of entrepreneurial activities (Ahlstrom and Bruton 2010). Thus, the different environmental settings for entrepreneurship may cause differences in entrepreneurship research in China.

### 2.2.3. *Concluding remarks*

Based on above discussion, we can expect that entrepreneurship research in China is both similar to and different from such research in Western countries. On the one hand, China is

a follower that began quite late with its entrepreneurship research. Thus, existing knowledge from Western countries greatly influenced Chinese entrepreneurship research. In addition, knowledge diffusion, research collaboration and cross-national education have all contributed to similarities in entrepreneurship research worldwide, including academic research in China. On the other hand, China's social, political and cultural environment is very different from that in Western countries. These contextual differences may influence the development of entrepreneurship in China as well as entrepreneurship research themes and methods.

### **3. Data collection and method**

Bibliometric analysis, which has been proven to be an effective method for describing and understanding a research field, is used in this study (Braam, Moed, and Raan 1991; Fernandez-Alles and Ramos-Rodríguez 2009; Shiao and Dwivedi 2013). It can help researchers to capture the structure and dynamics as well as the underlying conceptual foundations of a research field (Zhai, Su, and Ye 2013). Thus, it is well suited for the current research since it facilitates the understanding of entrepreneurship research in each region. Specifically, we utilize two bibliometric approaches – citation analysis and co-citation analysis to systematically examine entrepreneurship research in the USA, Europe and China.

Citation analysis is a generic term for a set of techniques that has a long history in bibliometric studies of scholarly communication (Harter and Kim 1996). For decades, many researchers have used citation analysis to evaluate academic journals, research performance of universities and their departments, and research publications. Citation analysis assumes that an author cites an article because he/she found the article relevant in some way to his/her own investigation (Ratnatunga and Romano 1997). Therefore, reference to a particular article reflects a scholarly impact of that article on the citing work. It further assumes that the accumulated total citations to a given work in some sense reflect the impact of that work on scholarship and research (Harter and Kim 1996). In other words, the more frequently an article is cited the greater is its role in the scholarly communication.

Co-citation analysis, which is a specific type of citation analysis used to identify clusters of citations that are 'co-cited' by other articles (Small 1973), is a quantitative technique for mapping the structure and dynamics of scientific research (Braam, Moed, and Raan 1991). Co-citation analysis refers to the frequency of co-citation, which is defined as the number of times that two documents are cited jointly in articles. The assumption is that if two articles are cited in the same article, they are closely related to each other either because they belong to the same topic area or because their topic areas are closely connected.

In addition, we used a clustering routine, suggested by Persson (1994), where we scrutinized all pairs of co-cited documents, looking for pairs that share one unit. For instance, with the following pairs of co-cited documents – 'A and B' and 'B and C' – the three documents form a cluster, whereas the pairs of documents – 'A and B' and 'C and D' – do not (Åström 2010; Landström, Harirchi, and Åström 2012). Thus, the clustering routine requires a higher level of connectivity and a multi-link connection between documents, rather than the single-link co-cited pair connection. Therefore, using co-citation analysis, the special structure of a research field can be analysed. For this article, we argue that if two or more works are frequently co-cited, we can conclude that their topics and/or their concepts and theories are of interest and relevance to other researchers.

We used two data sets to retrieve data for our study. For the US and European data, we used the SSCI from the Web of Science Database. For the Chinese data, we used the CSSCI database in addition to the SSCI database. Our inclusion of CSSCI for the Chinese data is based on two reasons: first, there are fewer publications by Chinese researchers than US and European researchers in the SSCI; second, CSSCI is a dominating publishing outlet for Chinese entrepreneurship research.

More specifically, we searched the SSCI database for US, European and Chinese publications published between 2003 and 2012 that contained the following search words in the titles, key words and abstracts: ‘entrep\*’, ‘start-up’/‘startup’, ‘new firm\*’ and ‘new venture\*’. For the same period, we searched the CSSCI database for the search words ‘创业\*’ and ‘新创企业’.<sup>5</sup> Only articles, reviews, conference proceedings, meeting abstracts and book chapters from the US, European and Chinese data sets were included in the analysis. Book reviews were excluded, as were editorial material and letters to the editor.

Our search yielded 12,956 articles and 558,213 citations. Of these, 4426 articles and 242,010 citations were in the US data set, 5080 articles and 270,998 citations were in the European data set, and 3,450 articles (244 articles in the SSCI and 3206 articles in the CSSCI) and 45,205 citations were in the Chinese data set. The 12,956 articles’ titles, authors and their affiliations, and keywords as well as the articles, monographs, conference papers, books and working papers cited by these articles constitute the raw data set for this research. Figure 1 presents the annual number of articles published by US, European and Chinese authors.

We used Bibexcel software for the co-citation analysis. Because of the format and language, we could not analyse the data retrieved from the CSSCI directly by Bibexcel software. Thus, we developed a new software program, ‘Format convert’, that transformed the original data to a format compatible with Bibexcel software. Next, we calculated co-citation frequencies for the three regions and then transferred these data to VOSviewer visualization software, where a graphic representation of the intellectual structure of entrepreneurship field was produced (Van Eck and Waltman 2007).

However, citation analysis is not without limitations. Critics argue that citations are biased in favour of certain authors, namely those ‘popular’ authors who enjoy a ‘halo effect’, authors who write review articles and authors whose articles are methodological or are in established and well-researched fields (Ratnatunga and Romano 1997). Also, we have to bear in mind that publishing dates may create another bias problem. ‘Old’ articles are likely to be cited more often than ‘new’ articles simply because they have more time to

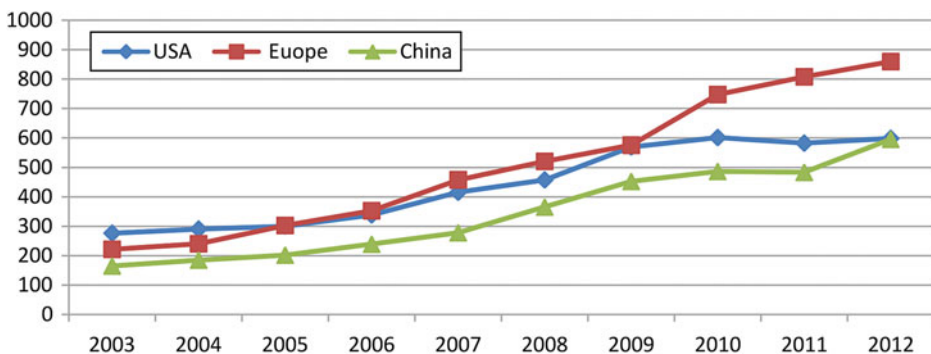


Figure 1. Number of published articles in the USA, Europe and China. Note: Please note that number of publications in this figure only presents publications indexed by SSCI and CSSCI.

collect citations (Shane 1997). Furthermore, our data source – publications in SSCI and CSSCI databases – constitutes another limitation for bibliometric analysis since publications that are not indexed can also make interesting and important contributions. We also acknowledge that for Chinese research, major differences exist between articles published in the SSCI and CSSCI databases (Zhai, Su, and Ye 2013). In our study, however, our primary focus was the difference between Chinese entrepreneurship research and that in the USA and Europe rather than the differences within Chinese entrepreneurship research. Despite all these limitations, we are still convinced that an analysis of the citations provides important information and is therefore an appropriate and objective method for this research.

#### 4. Results

In this section, we present the results of our co-citation analysis. To better understand the analysis of recent 10 years (2003 to 2012), we begin with a description of the history of entrepreneurship research in the USA, Europe and China.

##### 4.1. *Entrepreneurship research in the USA*

The USA is considered the leader in entrepreneurship research (Audretsch et al. 2002). Scholars in the USA began systematic entrepreneurship research in the late 1970s, a period when the US radically reorganized its economic structure such that small business and entrepreneurship played a greater role. A number of scholars noticed this trend and began to ask questions about entrepreneurship: how it differed from large corporations and what is its function in society (Acs and Audretsch 1990; Becattini 1989; Birch 1979). The new and exciting field of entrepreneurship soon attracted a large number of researchers from different disciplinary backgrounds, who drew upon cognitive resources from their home disciplines to address entrepreneurship-related issues. At that period, entrepreneurship research was mainly discovery-oriented in which researchers tried to describe this ‘new’ phenomenon from different angle.

To spread theoretical and methodological knowledge, an infrastructure was created to facilitate discussion. Most important were the creation of several conferences (e.g. Babson College Entrepreneurship Research Conference), professional associations (e.g. Entrepreneurship Division of the Academy of Management) and dedicated entrepreneurship journals (e.g. *Journal of Business Venturing* and *Entrepreneurship Theory and Practice*). These events set the stage for further development of entrepreneurship research.

Societal and political interest in entrepreneurship continued into the 1990s. US politicians were eager to provide a nourishing environment for entrepreneurship. Influenced by such political enthusiasm, researchers increased their investigations of various aspects of entrepreneurship. As a consequence, a dynamic, although fragmented, picture of emerging new topics and fading old ones could be observed. By the end of the 1990s, these endeavours resulted in an entrepreneurship research infrastructure on the threshold of maturity. There were more than 300 endowed academic positions, more than 100 centres, at least 40 refereed academic journals and more than a dozen professional organizations (Katz 2003). Education programmes expanded with dramatic increases in the number and variety of courses. The quality of the research also improved with more and more entrepreneurship-related articles published in top-ranked management journals.

From 2000 onwards, more and more researchers realized that despite all that had been achieved, entrepreneurship research still lacked clear concepts and core theories. This lack hampered further development of the field. An intense debate began on the central





embeddedness of entrepreneurial behaviour, address how networks can influence opportunity recognition, resource acquisition and performance of new ventures.

Cluster 2: This is a cluster with a rather broad and eclectic group of studies based on classic economics and management theory. At the top of the cluster, with two works by Evans at the centre, we locate researchers who examine the determinants of entrepreneurial entry (Evans and Jovanovic 1989; Evans and Leighton 1989). Other researchers in this cluster address three questions: 'What is entrepreneurship?', 'What is the role of entrepreneurship in society?' and 'What should we study about entrepreneurship?' (Kirzner 1985; Knight 1921). One of the ground-breaking studies is the research by Schumpeter (1934), who drew scholarly attention to the field of entrepreneurship, distinguished entrepreneurship from traditional economy based on scale, and emphasized entrepreneurship's role in economic development. The seminal research by Shane and Venkataraman (2000) that stimulated an intense debate among scholars about the domain of entrepreneurship is at the centre of the cluster.

Cluster 3: A group of works related to resource-based view and dynamic capacities. Based on theoretical contributions by Barney (1991) and Teece, Pisano, and Shuen (1997), researchers in this cluster examine entrepreneurship from the following strategic perspectives: 'How can firms gain sustained competitive advantage?' and 'How can dynamic capacities be created?' The role of knowledge and organizational learning is a question of interest to researchers in this cluster. Scholars claim that knowledge is an important element and a valuable resource that can generate sustainable competitive advantage and superior performance (Grant 1996).

Cluster 4: This cluster contains contributions from sociology that focus on the ecology of organizations and on institutional theory. The ecology of organizations takes a sociological perspective: the emergence of organizations, their development and their decline (Aldrich and Fiol 1994; Hannan and Freeman 1977). Institutional theory looks at how institutions, as rules of the game, shape firms' behaviour and at how new ventures and small firms adjust their internal structures and operations to comply with institutional forces (Pfeffer and Salancik 1978). Aldrich and Fiol (1994) combined the two perspectives by highlighting the interaction or intertwined process of organization ecology and the evolution of institutions.

Cluster 5: Works on entrepreneurial orientation also formed a densely connected cluster. This group of works reveals an interest in studying entrepreneurship as a firm-level behaviour and orientation (Covin and Slevin 1991; Miller 1983). Lumpkin and Dess (1996), who are at the centre of this cluster, classify the construct of entrepreneurial orientation into five dimensions: autonomy, innovativeness, risk-taking, proactiveness and competitive aggressiveness. Research methodologies intensively utilized in behavioural science and organizational studies such as structural equation modelling and multiple regression are paid great attention here (Aiken and West 1991; Fornell and Larcker 1981).

#### **4.2. *Entrepreneurship research in Europe***

Europe is a very heterogeneous continent, with quite divergent conditions for entrepreneurship and entrepreneurship research. It is thus very difficult to fully describe entrepreneurship research in Europe. However, it has been argued as a whole, a look of commonality in entrepreneurship research across European countries can be detected.

Europe has a long tradition in entrepreneurship research. Some well-known pioneers, such as Richard Cantillon (app. 1680–1734), Jean-Baptiste Say (1767–1832) and Joseph Schumpeter (1883–1950), laid strong entrepreneurship roots in the economic literature. However, this tradition did not develop further due to lack of interest on the part of policy-makers, who for a long period of time believed that large companies drive European competitiveness and growth (Audretsch et al. 2002).

In the early 1970s, however, in a time of recession in many European countries, the efficiency of large corporations was challenged (Bolton 1971). Some politicians (e.g. UK Prime Minister Margaret Thatcher) began to look to small business as a solution to unemployment. As a consequence, research interest in small business and venture creation started to spread (Hisrich and Drnovsek 2002). However, the focus was more on small business, compared to entrepreneurship, owing to the importance of small- and medium-sized businesses in the European economy. To promote research on small business and entrepreneurship, the focus was on initiating an entrepreneurial infrastructure. For instance, the RENT Conference and the European Council for Small Business were launched, and journals such as the *International Small Business Journal*, *Entrepreneurship and Regional Development* and *Small Business Economics* were founded (Hisrich and Drnovsek 2002).

In the 1990s in Europe, the general public and researchers recognized the role entrepreneurship plays in promoting economic development. As a result, entrepreneurship research increased, and the academic infrastructure for entrepreneurship developed and strengthened. More scholars, who were attracted to entrepreneurship research from various disciplinary backgrounds, analysed the phenomenon from various perspectives. Thus, this decade witnessed the increasing study of new topics, the declining study of old topics and the revolving door of researchers who entered and left the field. Students also took an interest in entrepreneurship, which led to a significant increase in the number of entrepreneurship courses and programmes in European business schools. Although funding of entrepreneurship research significantly lagged that in the USA, greater government commitment to funding was observable in Europe (Katz 2003). As a consequence of these developments in the research community and infrastructure, entrepreneurship research began to gain the respect from other academia areas.

In the first decade of the twenty-first century, an emphasis on infrastructure building and legitimacy searching can still be observed in Europe. Entrepreneurship became an essential component of regular education in this period, although a handful of institutions had started earlier (Twaalfhoven and Wilson 2004). Compared with the USA, fewer universities in Europe today have academic entrepreneurship departments. Professors from traditional disciplines such as economics or business administration teach the entrepreneurship courses. National governments and the European Union still provide the bulk of the funding for entrepreneurship research, although this is beginning to change as companies and foundations increase their contributions (Wilson 2008). Figure 3 maps the recent structure of entrepreneurship research in Europe from 2003 to 2102.

Cluster 1: This small cluster includes research on innovation systems and regional development. Researchers in this cluster investigate how knowledge sources determine the geographic distribution of industrial activities and how knowledge spillover promotes regional development (Audretsch and Feldman 1996; Roberts 1991; Teece 1986; Zucker, Darby, and Brewer 1998). Naturally, they examine the role of universities and research institutes that produce knowledge. For instance, topics of interest are the various technology transfer strategies in European countries (Clarysse

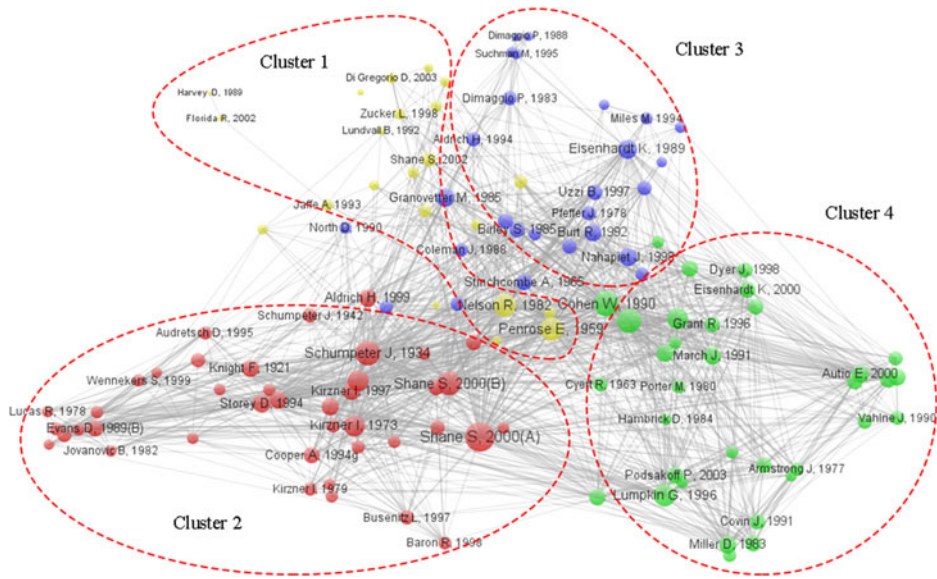


Figure 3. Co-citation map of Europe.

et al. 2005), and their contribution to start-up firms (Di Gregorio and Shane 2003). By focusing on these topics, scholars provide insight into the university–industry nexus and shed light on how universities and research institutes can better advance and use their knowledge to support regional development.

Cluster 2: This is a very broad and eclectic cluster focusing on several research themes. One theme seeks to understand the boundary and domain of entrepreneurship field (Shane and Venkataraman 2000). A few seminal works from classic economics provide a theoretical background (Baumol 1990; Kirzner 1973; Knight 1921; Schumpeter 1934). Interestingly, more scholarly attention is paid to the ‘small businesses’. The research in this area by Storey (1994) is cited very frequently. A second theme relates to the field of sociology with research on the ecology of the organization – its emergence, distribution and development. A third theme focuses on entrepreneurial intention and entry (Evans and Jovanovic 1989). Scholars offer their insights on various intention models (Krueger, Reilly, and Carsrud 2000), why intention is an effective predictor of entrepreneurial entry (based on the theory of planned behaviour) and the various factors that influence entrepreneurial choice (Ajzen 1991; Evans and Jovanovic 1989).

Cluster 3: This is a cluster of studies that focus on social capital and social networks, institutional theory and qualitative methods. Burt (1992) and Granovetter (1985) are the two most-cited studies in social network research. Based on social capital theory, scholars are moving away from examining entrepreneurs in isolation. Instead, they have begun to view entrepreneurship as socially embedded activities in which social networks are used to obtain necessary resources and to create competitive advantages. In institutional theory-related research, scholars, who draw on the seminal research on institutional economics by North (1990) and on sociology by DiMaggio and Powell (1983), investigate how institutions in an emerging industry constrain the behaviour of entrepreneurial firms and how entrepreneurship in return shapes the formation of institutions (Aldrich and Fiol 1994; Maguire, Hardy, and Lawrence 2004; Suchman

1995). Moreover, studies regarding qualitative methods, which are used extensively in examining the effect of institutions overtime and the change of institutions in an organizational field, are cited very frequently (Eisenhardt 1989; Glaser and Strauss 2009).

Cluster 4: This is a cluster containing several research subjects. First, several works examine entrepreneurship from a strong strategic perspective with a focus on resource-based view and dynamic capacities (Barney 1991; Cohen and Levinthal 1990). Scholars are interested in how different resources and capacities can influence various aspects of firms, such as innovation, learning and performance. Second, inspired by the research of Oviatt and McDougall (1994), a number of scholars investigate the internationalization of entrepreneurial firms (Autio, Sapienza, and Almeida 2000). The examination of international new ventures is at the intersection of international business and entrepreneurship. In this intersection, researchers look at internationalization choice and entry as well as different internationalization strategies such as direct and indirect internationalization. Third, a sub-group in the cluster focuses on entrepreneurial orientation, another construct with a strategic perspective (Covin and Slevin 1991; Lumpkin and Dess 1996). Fourth, quantitative methods, including structural equation model, multiple regression and common issues in behavioural and organizational research emerged as another important topic (Fornell and Larcker 1981; Podsakoff and Organ 1986).

### **4.3. *Entrepreneurship research in China***

As stated earlier, entrepreneurship research in China did not start until the late 1990s. Prior to the late 1970s, the Chinese Government adopted a strict centralized economic policy and actively suppressed private enterprise because it was believed to be an economic form of capitalism, which can greatly harm a socialist economy. Unsurprisingly, Chinese academic researchers showed little interest in small business or entrepreneurship research. In 1978, when Chinese policy-makers saw that a centrally planned economy created certain problems, including a lack of economic vitality and a severe shortage of consumer products, the national government adopted a reform and opening-up policy that triggered the rapid development of the private sector. This move is now seen as the real beginning of modern entrepreneurship in China (Chen, Fu, and Bai 2008). Thereafter, the Chinese Government's policy towards entrepreneurship began to change from constraining entrepreneurship to proactively encouraging it. Especially with the recognition of its role in economic development, entrepreneurship has become a socially desirable phenomenon and a 'hot topic' in Chinese society (J. Li and Matlay 2006).

The same trend is observable in Chinese entrepreneurship research. Several Chinese scholars started to conduct studies based on the research paradigm developed in the West. Qiang Lin, Jiang, and Zhang (2001), Jun Yang and Yuli (2004) and Song Lin, Wei, and Qiong (2004) should be mentioned in this regard, not only because their works became influential in China but also due to the fact that they are pioneers of Chinese entrepreneurship research. Moreover, entrepreneurship has been regarded as one of the most important research field by National Natural Science Foundation of China (the largest research foundation in China) and has the priority in accessing research funds. The number of funded research programmes increased from 1 in the year 2000 to 27 in the year 2012. In the same period, total research funding grew from 130,000 CNY to 15,060,000 CNY (approximately 21,200 USD to 2,463,000 USD). All the factors

mentioned above attracted a large number of researchers and greatly expand the field, making entrepreneurship research the most vibrant research area in China today (Zhai, Su, and Ye 2013).

Many initiatives were taken in the 2000s to create an entrepreneurship research infrastructure where scholars could formally or informally communicate. Many journals began to publish research on entrepreneurship. Among these journals are *Foreign Economics and Management*, *Science Research Management* and *R&D Management*. More entrepreneurship research centres were established in the same period. Moreover, more students took an interest in entrepreneurship. As a consequence, entrepreneurship-related courses were introduced at major universities and colleges. However, entrepreneurship research in China is still mainly exploratory in nature, which uses low-rigour methodology and builds on theories developed in Western countries (Bruton, Ahlstrom, and Obloj 2008).

Figure 4 presents the structure of entrepreneurship research in China in the past 10 years (2003–2012). Five distinct clusters can be observed in the map.

Cluster 1: This is a cluster that focuses on general entrepreneurship theory and its economic theoretical foundation. Seminal works in entrepreneurship research that take the economic perspective such as Knight (1921) and Schumpeter (1934) are cited frequently. In addition, more recent contributions by Shane and Venkataraman (2000) and Ardichvili, Cardozo, and Ray (2003) provide a new platform for examining entrepreneurship phenomena from an individual and opportunity nexus. Other Chinese works, mainly textbooks on general entrepreneurship management, are often cited (Qiang Lin, Jiang, and Zhang 2001).

Cluster 2: This is a densely inter-connected cluster that focuses on entrepreneurial orientation. Unlike the entrepreneurship research in the USA and Europe, entrepreneurial orientation is an important topic in China that formed a separate cluster. The research by Lumpkin and Dess (1996) and Miller (1983) laid a solid foundation for exploring entrepreneurship as a firm-level behaviour. Entrepreneurship

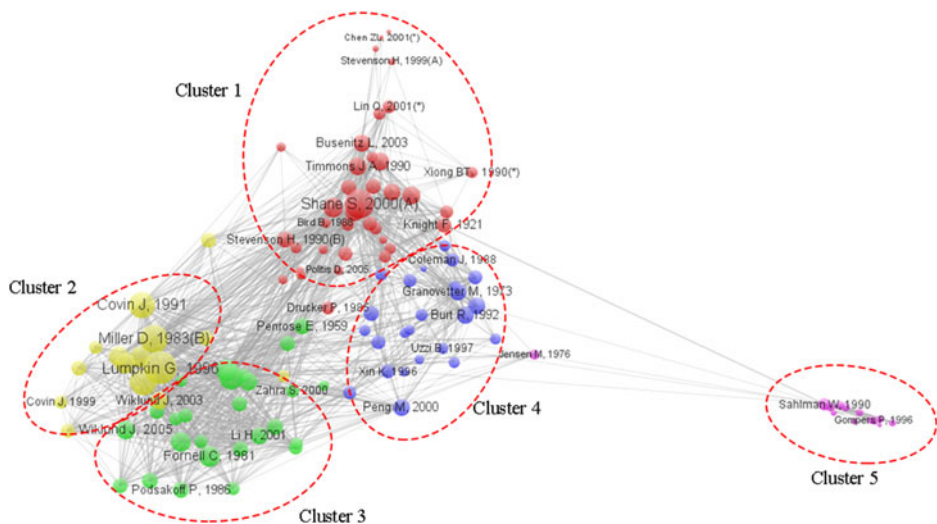


Figure 4. Co-citation map of China.

occurs not only in start-up ventures but also in existing firms that pursue entrepreneurial opportunities to spur business expansion, technological progress and wealth creation. Various scholars have looked at the construction and dimensions of entrepreneurial orientation. Research in this cluster also addresses its linkage with performance under different environmental and organizational conditions (Lumpkin and Dess 2001; Zahra and Covin 1995).

Cluster 3: This is a cluster of studies that focus on resource-based view as indicated by the contribution of Barney (1991), who defined this concept. Building on related works, researchers in this cluster investigate the characteristics and effect of resources that have the potential to generate sustainable competitive advantage. Other research topics in the cluster are data collecting methods (e.g. mail surveys and quantitative methods such as regression) (Armstrong and Overton 1977; Podsakoff and Organ 1986).

Cluster 4: This is a cluster of studies that concentrates on institutional theory and social capital. Several scholars in this cluster emphasize the institutional context or institutional changes and their effect on firm behaviour and performance (North 1990; Peng and Luo 2000). China is presented as a special research context in which the institutional environment is experiencing dramatic changes. Social capital is another important research topic in this cluster. Researchers examine entrepreneurship from a social embeddedness point of view (Burt 1992; Granovetter 1973). However, these two topics, institutional theory and social capital, are not studied in isolation. Social capital in a weak institutional environment such as China's has been used as a substitute for formal institutional support and as an access to resources (Peng and Luo 2000).

Cluster 5: This is a relatively small cluster related to venture capital with special attention paid to the operation of the venture capital industry and its role in entrepreneurship development. The research by Sahlman (1990), in which he describes the relationship between different actors and existing problems in the venture capital industry, is highlighted. In the operation of venture capital, contracts are described as a way to minimize the agency and monitoring costs and to control the new venture (Aghion and Bolton 1992; Gompers 1995). Venture capital has significant influence on the development of new ventures by providing the necessary financial resources and by promoting the professionalization of funded ventures (Hellmann and Puri 2002).

#### **4.4. Research themes in China, the USA and Europe**

Above, we interpreted the scholarly structure of entrepreneurship field in three regions based on co-citation maps. To summarize, Table 1 presents the main research themes found in the USA, Europe and China.

As shown in Table 1, most research themes in China are also prevalent in the USA and Europe. (In Table 1, similar research themes are in regular font. We label them international topics hereafter.) A common characteristic of these international topics is that they usually have a theoretical or methodological focus. For instance, taking the theoretical perspective, early contributions from economics – which influenced the view of entrepreneurship in economic system and laid theoretical foundation for entrepreneurship research – is still an international topic of conversation. Similarly, the resource-based view, which provides insights about unique sets of resources and their influence on strategy and performance, is a commonly used theoretical perspective in examining

Table 1. Research themes in the USA, Europe and China.

	USA	Europe	China
Cluster 1	<b>Venture capital</b> Social capital	<b>Innovation system</b> <b>University start-up</b>	Economic foundation of entrepreneurship General entrepreneurship theory
Cluster 2	<b>Entrepreneurial entry</b> Economic foundation of entrepreneurship General entrepreneurship theory <b>Personal traits of the entrepreneur</b>	Economic foundation of entrepreneurship General entrepreneurship theory <b>Personal traits of the entrepreneur</b> <b>Population ecology</b> <b>Entrepreneurial entry</b>	Entrepreneurial orientation
Cluster 3	Resource-based view and dynamic capacity	Social capital <b>Institutional theory (organizational field level)</b> Qualitative method	Resource-based view and dynamic capacity Quantitative method
Cluster 4	<b>Institutional theory (organizational field level)</b> <b>Population ecology</b> Qualitative method	<b>International entrepreneurship</b> Resource-based view and dynamic capacity Entrepreneurial orientation Quantitative method	Social capital <b>Institutional theory (country level)</b> Qualitative method
Cluster 5	Entrepreneurial orientation Quantitative method		<b>Venture capital</b>

Note: Research themes in regular font denote similarities across regions; research themes in bold font denote differences across regions.

entrepreneurship in China and the other two regions. Entrepreneurial orientation, which views entrepreneurship as firm-level behaviour, is also a main topic in the international dialogue. From methodological perspective, we find that similar classic works illustrating qualitative and quantitative methods are intensively cited in all three regions.

Despite the strong similarities that we can find between entrepreneurship research in China and the USA and Europe, entrepreneurship research in China also has somewhat different characteristics. (In Table 1, different research themes are in bold font.) While many research topics are studied in all three regions, to some extent researchers in China investigate different research questions. Institutional theory should be mentioned in this regard. Although it is a major theoretical lens in examining entrepreneurship in all regions, the theory is used at the organizational field level in the USA and Europe but at the country-level institutional change in China. For example, the institutional environment in China, which differs greatly from that in the USA and Europe, has changed dramatically in recent decades. Thus, Chinese researchers concentrate on country-level institutional change as they examine theories developed in Western countries in the new Chinese environment. We also find that Chinese researchers take little interest in population ecology, which has its roots in sociology. This can be explained by the lack of interest in sociology from the 1950s to 1980s when sociology in China was regarded as a bourgeois pseudoscience and banned as a research subject (Bian and Zhang 2008).

Taken together, in bibliometric maps, we found evidence that entrepreneurship research in China shows strong similarities to the research in other regions, and also a few



research issues of its own. We think international knowledge diffusion is one important reason for the popularity of theoretical and methodological topics in China, which has resulted in similarities to US and European entrepreneurship research. At the same time, different contextual elements to some extent governed what issues to study and helped maintaining diversity in Chinese entrepreneurship research.

#### **4.5. Citation patterns and research collaboration in China, the USA and Europe**

To further elaborate on similarities and uniqueness of Chinese entrepreneurship research, we take one step further to compare the 30 most-cited studies and the research collaboration in China, the USA and Europe.

**Table 2** details when it comes to the most cited publications in the three regions.

As far as similarity is concerned, researchers in China as well as the USA and Europe are relying on a similar research foundation. The overlap in top-cited works among regions is evidence of this conclusion (overlapping citations in all three regions are shown in regular font, overlapping citations appear in two regions are shown in italics). There is a 63.3% overlap in the top 30 studies between the USA and Europe, a 33.3% citation overlap in studies between Europe and China, and a 30.0% citation overlap between the USA and China. The overlap in top-cited works provided a similar research foundation and thus contributed to similarity in Chinese entrepreneurship research. Among the 30 most-cited publications in China there are few Chinese works. Thus, there is a clear path of cross-regional citations were Chinese researchers frequently cites publications from the USA and Europe, whereas research by Chinese scholars exerts little influence on US and European researchers. This cross-regional learning, which facilitates China's borrowing from the USA and Europe, brought similarity to Chinese entrepreneurship research.

With regard to differences, evidence can also be found in citation patterns. Chinese researchers cite more recent works. Our study finds that Chinese researchers have cited eight works published after 2000 and only three works published before 1980. The corresponding numbers in the USA are three and eight, and four and five in Europe.<sup>7</sup> Moreover, hierarchy of citations in China is not as evident in the USA and Europe. Researchers in the USA and Europe cite more 'classic works'. Taking the research on entrepreneurial orientation as an example, US and European researchers cite only the seminal research by Lumpkin and Dess (1996) and Miller (1983). However, Chinese researchers cite additional studies: Lumpkin and Dess (2001) and Miller and Friesen (1982).

Following the analysis of citation pattern, **Table 3** presents the results of research collaboration in the USA, Europe and China.<sup>8</sup>

**Table 3** shows that the research collaboration patterns in the USA and Europe are quite similar. About one fourth of their publications are single-authored. The most common form of research collaboration is between researchers in the same region. Additionally, the scholarly conversation is rather open: 25.2% of publications in the USA and 18.1% of publications in Europe are co-authored by researchers from at least two regions. Research collaboration in China is quite different. The most common research collaboration type is cross-national, which accounts for 56.2% of the publications. Single-author articles in China account for only 16.8% of the publications, which is a lower percentage than in both the USA and Europe.

For many Chinese researchers, writing an article in English is a challenging task, even when they have studied English or have travelled abroad. Therefore, they seek collaborators with complementary skills, not only in theoretical knowledge but also in English language competency and scientific reputation. This kind of collaboration enables Chinese scholars to draw on theoretical background and writing paradigm of collaborators

Table 2. Top 30 cited studies in the USA, Europe and China.

USA	Europe	China
Shane and Venkataraman (2000)	Shane and Venkataraman (2000)	Shane and Venkataraman (2000)
Barney (1991)	Schumpeter (1934)	Lumpkin and Dess (1996)
Schumpeter (1934)	<i>Cohen and Levinthal (1990)</i>	<b>Timmons (1985)</b>
Lumpkin and Dess (1996)	Barney (1991)	Miller (1983)
Shane (2000)	<i>Nelson (1982)</i>	<b>Covin and Slevin (1991)</b>
<i>Nelson (1982)</i>	<i>Penrose (1959)</i>	Barney (1991)
<i>Cohen and Levinthal (1990)</i>	Lumpkin and Dess (1996)	<i>Covin and Slevin (1989)</i>
<b>Stinchcombe (1965)</b>	<b>Storey (1994)</b>	<b>Schumpeter (1934)</b>
<i>March (1991)</i>	<b>Eisenhardt (1989)</b>	<b>Sahlman (1990)</b>
<i>Penrose (1959)</i>	Shane (2000)	<b>Ke (1989) (Translation)</b>
<i>DiMaggio and Powell (1983)</i>	Granovetter (1985)	<b>Gartner (1985)</b>
<b>Ventakaraman (1997)</b>	<b>Davidsson and Honig (2003)</b>	Teece, Pisano, and Shuen (1997)
<i>Kirzner (1973)</i>	<i>Kirzner (1973)</i>	<b>Kirzner (1985)</b>
<b>Busenitz and Barney (1997)</b>	Teece, Pisano, and Shuen (1997)	<b>Lumpkin and Dess (2001)</b>
<b>Pfeffer and Salancik (1978)</b>	<i>Evans and Leighton (1989)</i>	Granovetter (1985)
<i>Knight (1921)</i>	<i>North (1990)</i>	<b>Miller and Friesen (1982)</b>
<i>Covin and Slevin (1989)</i>	<i>Evans and Jovanovic (1989)</i>	Shane (2000)
<i>Aldrich (1999)</i>	<i>Knight (1921)</i>	<b>Busenitz et al. (2003)</b>
Granovetter (1985)	<i>DiMaggio and Powell (1983)</i>	<i>Burt (1992)</i>
<b>Porter (1980)</b>	<b>Gimeno et al. (1997)</b>	<b>Zahra and Covin (1995)</b>
<b>Stuart, Hoang, and Hybels (1999)</b>	<i>March (1991)</i>	<b>Qiang Lin, Jiang, and Zhang (2001)</b>
<b>Jensen and Meckling (1976)</b>	<b>Baumol (1990)</b>	<b>He and Yi (1990)</b>
Teece, Pisano, and Shuen (1997)	Miller (1983)	<i>Granovetter (1973)</i>
<b>Aldrich and Fiol (1994)</b>	<i>Burt (1992)</i>	<b>Kaplan and Strömberg (2003)</b>
<i>North (1990)</i>	<b>Shane (2003)</b>	<b>Ardichvili, Cardozo, and Ray (2003)</b>
Miller (1983)	<i>Granovetter (1973)</i>	<b>Stevenson and Jarillo (1990)</b>
<i>Evans and Leighton (1989)</i>	<i>Aldrich (1999)</i>	<b>Nunnally (1978)</b>
<b>Cyert and March (1963)</b>	<b>Blanchflower and Oswald (1998)</b>	<b>Low and MacMillan (1988)</b>
<i>Evans and Jovanovic (1989)</i>	<b>Wernerfelt (1984)</b>	<b>Jiang (2003)</b>
Sarasvathy (2001)	<b>Nahapiet and Ghoshal (1998)</b>	<b>Baron and Kenny (1986)</b>

Note: Citations in regular font denote similarities across regions; Citations in bold font denote differences across regions.

on the one hand, while take their own advantage in awareness of the uniqueness of Chinese context and practices. Thus, a strong linkage between Chinese and Western researchers can be observed.

Table 3. Collaboration in the USA, Europe and China.

Region/country	Total publications	Single author	Co-authorship within region/country	Co-author with other regions
USA	4426	1186 (26.8%)	2124 (48.0%)	1116 (25.2%)
Europe	5080	1160 (22.8%)	3004 <sup>a</sup> (59.1%)	916 (18.1%)
China	244	41 (16.8%)	66 (27.0%)	137 (56.2%)

<sup>a</sup> 2253 (75.0%) of 3004 publications belong to collaboration with a single European country, while the others indicate collaboration across European countries.

## 5. Discussion: similarities and uniqueness of Chinese entrepreneurship research

This paper presents an initial effort in understanding how entrepreneurship research in China is similar to and different from such research in the USA and Europe. We offer evidence that, on the one hand, Chinese researchers are focusing on similar research themes and building on similar existing studies compared to their Western counterparts. On the other hand, it can also be found that Chinese entrepreneurship research has its own uniqueness. Some context-specific topics attract scholarly attention in China. And Chinese researchers have different collaboration patterns. Following what we discussed in Section 2, we argue that internationalization and contextualization are two reasons that contribute to similarity and uniqueness respectively.

### 5.1. *Internationalization*

In the last few decades, internationalization is a very obvious trend of entrepreneurship research. Echoing Aldrich (2012), we argue that internationalization is one main reason that brings entrepreneurship research in China more and more similar to such research in Western countries. In his article, Aldrich (2012) summarized six inter-related forces, which include social networking (professional associations and conferences), publications (books and Journals), training and mentoring, funding, recognition and awards, and globalization. Especially, globalization is affecting all the other five forces, influencing the scope of knowledge diffusion and mutual learning. These six forces play a vital role in providing a mechanism through which scholars can learn about research methods and results in other regions as well as facilitating knowledge diffusion, setting visible role models and borrowing among entrepreneurship researchers (Aldrich 2012), which lead to similarities in a field's development across regions. In China, internationalization in entrepreneurship is also affecting all the other five mechanisms and providing Chinese researchers an opportunity to learn from their Western counterparts. For instance, more and more Chinese researchers now present in international conferences, join in academic associations and visiting in top-ranked universities to build their social networks. Also, more and more Chinese universities try to compete on the international arena, and as a result, researchers are frequently required to publish in international journals. Thus, Chinese researchers have to read publications by Western scholars more and more frequently. When it turns to training and mentoring, an increasing number of PhD students are trained in Western countries and thus able to do research in a 'Western' way. Thus, we can conclude, Chinese researchers are greatly influenced by internationalization and may share similar core concepts, principles, and research methods with scholars in the West, and eventually lead to similarities in research.

We can also find evidence for similarity in publications by Chinese researchers. In their study, Zhai, Su, and Ye (2013) found that Chinese researchers borrowed a lot of concepts and theories developed in mature economies. They try to explain or learn existing theories, which to some extent is reflected by the fact that most highly cited Chinese works are literature reviews (Zhai, Su, and Ye (2013)). These similarities in Chinese entrepreneurship research are also found in organizational theory and general management discipline. For instance, when Peng (2005) examined strategic management research in China, he found that Chinese researchers focused on theories developed in mature economies and mainly studied topics previously examined by Western researchers. In a similar vein, Klaus Meyer (2006) found that despite its potential to enrich management knowledge, Asian management research relied heavily on Western research and the uniqueness of its indigenous context has been downplayed. In a separate study, White

(2002) criticized Asian management research for almost exclusively focusing on simplistic comparisons and for a lack of understanding of the Asian context. As a result, Asian management research has mainly focused on global topics with the result that the research closely resembles the research from Western countries.

## 5.2. Contextualization

However, Chinese entrepreneurship research is not entirely homogenous with that in Western countries. As Zahra (2007) argued, context is the main driver that accounts for complexity, uniqueness and richness of entrepreneurship research. Following his argument, we hold that the unique Chinese context is the main reason for differences in Chinese entrepreneurship research. As we mentioned in Section 2, social and institutional contexts have their own special characteristics in China; thus, these issues would attract scholarly attention of Chinese researchers.

For instance, take institutional environment as an example; Chinese researchers describe weak property rights, weak contract enforcement and the extensive involvement of government in business affairs. Lu and Tao (2010) described the Chinese institutional environment for entrepreneurship as rather unfavourable compared with that in Western countries. They concluded that entrepreneurial decision-making in China is shaped by the institutional environment for private ownership and by the personal attributes of the potential entrepreneurs. Based on Scott's three dimensions of institution (regulative, normative and culture-cognitive), Ren (2010) divided the development of the Chinese institutional environment for entrepreneurship into three stages. He concluded that, although still very weak, all three dimensions of institution have improved (Scott 2008).

Chinese researchers have also paid attention to institutional transition in recent decades, in particular its effect on entrepreneurship. For example, Zhou (2011) used province-level panel data in an examination of the positive effect of a major institutional change – regional deregulation – on entrepreneurial growth. Qin Zhang (2013) analysed three aspects of changing institutions – government intervention, market development and legal systems – and their impact on the discovery of productive, unproductive or destructive entrepreneurial opportunities. These studies of Chinese entrepreneurship add to our knowledge of a very different institutional context and enhance our understanding of entrepreneurial behaviour.

The topics of social relationships and social capital appear in US and European research, but they have special importance in China. As noted above, *guanxi*, which refers to interpersonal relationships involving social obligations, is very important in China. Researchers in China mainly investigate the influence of *guanxi* on entrepreneurial decision-making and entrepreneurial behaviour. Shi (2011), for example, examined the role of *mianzi* (one's reputation within his/her *guanxi* network; Park and Luo 2001). In his study, Shi argued that owing an entrepreneurial firm could help entrepreneurs acquire wealth and social influence. In this way, the entrepreneurs protect their *mianzi*. However, if they fail, they will be considered as losers. In this case, they lose *mianzi*. In Shi's opinion, the protection of *mianzi* and the loss of *mianzi* strongly influence entrepreneurial decisions.

Chinese researchers have also examined the influence of social relationships on entrepreneurial behaviour, particularly for acquiring essential resources (Park and Luo 2001), achieving entrepreneurial success (Qing Zhang and Cao 2010; Zhong and Huang 2012) and encouraging entrepreneurial behaviour (Han, Yang, and Bao 2013). A common conclusion in these studies is that social relationships are an important element in the study of entrepreneurship in China. The special characteristics of Chinese entrepreneurship

indicate that, to some extent, social, economic and political considerations governed what issues were chosen for studies. Thus, context drives research practices (Aldrich 2000). These differences in environmental contexts have slowed the progress towards the convergence and enriched entrepreneurship knowledge.

Differences driven by unique context also exist in other research fields. For example, in examining management and organizational research in China, Peng et al. (2001) found much scholarly effort has been devoted to articulating the special character of Chinese culture and its influence on organizational behaviour. This effort has led to the study of several unique research topics. Similarly, Y Li and Peng (2008), in their investigation of strategic management research in China, argued that Chinese researchers tend to dive deeply into Chinese culture in an attempt to develop China-specific theories based on Chinese traditions and realities.

In summary, our analysis shows that Chinese researchers often choose research topics that Western researchers have studied. However, Chinese researchers have begun to analyse the implications of their indigenous context. The same trend also exists in Chinese management research. According to Klaus Meyer (2006), Chinese management research often focuses on 'general theories' and pays little attention to contextual variables. Meyer concludes that if Chinese researchers are to make greater contributions, they should start out to explain context-specific variables and effects.

## 6. Suggestions for future Chinese entrepreneurship research

In this article, we illustrated the context of China, the similarities and differences of Chinese entrepreneurship research as well as how it has been influenced by both entrepreneurship research in Western countries and its unique context. Since this research focuses on group level (e.g. cluster of researchers), it is beyond the scope of this article to examine individual-level issues, such as which researcher followed which research stream and possible reasons for his/her choice. But it would be interesting to know how research training, education and 'fashionable' research topics influence researchers' interest. Thus, future research can use individual-level data and provide some insight.

Despite the fact that they are following the research in Western countries, Chinese researchers have the potential to contribute to the global discourse. In agreement with Klaus Meyer (2006) and Xiaohua Yang and Terjesen (2007), we think that to realize their full potentiality as entrepreneurship researchers, Chinese scholars should shift from theory application to incorporation of context into theory refinement or development. For example, they can add new concept to existing models, develop new theoretical models, create appropriate variable measurements and address policy implications in the Chinese context. Besides, different dimensions of context outlined by Welter (2011), Trettin and Welter (2011) and Zahra and Wright (2011) provided a guiding framework in bringing context into research.

We recommend two kinds research that can better incorporate context: indigenous research and comparative research (Klaus Meyer 2006, 2007; Tsui 2004; White 2002). Indigenous research requires researchers to pay more attention to local phenomena and to issues of concern to local entrepreneurs. Many studies published in domestic journals are indigenous research. However, these studies have two major shortcomings. First, scholars often take context for granted and thus fail to investigate contextual boundaries or to systematically analyse contextual influences. Second, sometimes researchers in China describe a 'unique' phenomenon in China, and fail to connect that phenomenon with existing global knowledge. This disconnects Chinese entrepreneurship research from entrepreneurship research conducted elsewhere.

Research on rural migrant worker entrepreneurship is a typical example that exhibits both shortcomings. First, the presence of rural migrant workers, in the special context of China, results from the urban–rural split in the central planned economy. Following the political reform that relaxed certain economic policies, many rural areas have undergone urbanization. In this process, many farmers, who lost their land, were encouraged to migrate to cities such as Shanghai and Beijing. Over time, these migrants have characteristics that differentiated them from the traditional peasant farmers and other urban residents. For example, some migrants acquired start-up funds for enterprises, learned up-to-date technology and established a natural connection with rural markets. Concurrent with the development of small cities, many rural migrant workers have returned to their hometowns and have begun new economic ventures.

Chinese researchers have explored the special character of rural migrant worker entrepreneurship but have failed to explain its special context. And, although rural migrant worker entrepreneurship has much in common with the international topics of ‘migrant entrepreneurship’ and ‘ethnic entrepreneurship’, Chinese researchers fail to connect it to global knowledge. This is just one example of how Chinese entrepreneurship research lacks global influence.

In her study on Chinese management research, Tsui (2004) suggested two ways to better incorporate context. Her first suggestion is ‘Making the Familiar Appear Novel’. The idea is that Chinese researchers can adapt concepts or models developed in Western countries to the Chinese context by adding dimensions to the concepts and variables to the models. Her second suggestion is ‘Making the Novel Appear Familiar’. Given the new phenomenon of entrepreneurship in China, researchers can identify concepts or relationships that are important in Chinese contexts, and then discuss them in light of the existing literature on related phenomena.

Comparative research is another way to further contextualize Chinese entrepreneurship research. Scholars can compare/analyse entrepreneurial activities or behaviour in China and other regions, and analyse how and why they vary. They can also link these comparisons with different contextual conditions. For example, certain entrepreneurial behaviour may be viewed as a function of characteristics of context; certain relationships may be moderated by contextual attributes (Tsang and Kwan 1999). With this perspective, researchers can identify boundaries and extend existing theories. In addition, Chinese researchers can compare entrepreneurial activity and behaviour across regions in China. It has been documented that the huge diversity and segmentation exists in Chinese society. Thus, it offers considerable potential for the analysis of the effects of varying contexts (Schlevogt 2001; Tsui 2004).

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### **Notes**

1. The USA and Europe were included in the comparison framework because they are the two largest entrepreneurship research outlets in the world. For example, in his research, Shane (1997)

ranked institutes for entrepreneurship research, and, without exception, all top 20 productive institutes are located in the USA and Europe. In a more recent study, Brush, Manolova, and Edelman (2008) found that the USA is the largest entrepreneurship outlet, while European entrepreneurship research is expanding greatly. Moreover, in a separate study, Schildt, Zahra, and Sillanpää (2006) documented the number of entrepreneurship research publications by country. From 2000 to 2004, US researchers published 374 articles, European researchers published 313 articles and researchers from other regions published 109 articles. It is evident that the USA and Europe are two largest entrepreneurship research outlets which produce more than 80% of all entrepreneurship-related articles.

2. The Chinese Social Science Index database, which covers more than 500 important Chinese academic journals in the social science field, is the most authoritative database for social science research in China.
3. This is mainly reflected by the time that Chinese researchers joined global entrepreneurship discourse.
4. Industrial entry barriers exist in both developed and developing economies. However, industrial barriers in China are mainly caused by Chinese Government's emphasis on state ownership. For example, by 2009, private firms were still allowed to enter only 41 out of more than 80 total industries in China (*Xinhua News*, 30 December 2009).
5. '创业\*' and '新创企业' mean 'entrep\*', 'start-up'/'startup', 'new firm\*' and 'new venture\*' in Chinese.
6. For detailed information regarding articles included in all bibliometric maps, feel free to contact qinghuazhai@hotmail.com.
7. There are at least two major reasons for the different citation patterns of Chinese researchers. First, researchers from China may experience difficulty in accessing 'older' journal articles and books. Second, China began its entrepreneurship research comparatively late. It means that recent findings influence Chinese researchers more than older findings. For these reasons, Chinese researchers cite more recent publications and fewer 'older' publications.
8. All articles in the CSSCI database are in Chinese, with almost no contribution from Western researchers. Thus, we analyse only the research collaboration for articles indexed in the SSCI database.

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