An overview of contemporary ethnic entrepreneurship studies: themes and relationships

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Abstract

Purpose – The aim of this study is to explore the status of contemporary ethnic entrepreneurship studies in 1999-2008 in order to map the intellectual structure of ethnic entrepreneurship research and to provide insights for future research in this field.

Design/methodology/approach – This study collected citation data from SSCI, resulting in a data set of 403 journal articles and 18,656 cited references. Then using co-citation analysis, this study identified the core research themes in the ethnic entrepreneurship literature in 1999-2008.

Findings – The results showed that contemporary ethnic entrepreneurship studies clustered around a few key research themes and their research foci have shifted from research on enclave economies, ethnic enterprises, and social embeddedness to research on immigrant entrepreneurs, immigrant networks, and transnational entrepreneurs.

Research limitations/implications – With the qualification of citation and co-citation analysis, this study profiles the changing paradigms of contemporary ethnic entrepreneurship studies and traces the development of ethnic entrepreneurship research, and thus provides important insights on future ethnic entrepreneurship research, including transnational entrepreneurs, theory refinement and theory development on ethnic entrepreneurship, as well as ethnic culture and entrepreneurship. Limitations of using SSCI data are also discussed.

Originality/value – The intellectual structure of ethnic entrepreneurship literature has received relatively little attention in spite that a large number of studies have been done in this field. This study provides researchers with a new way of profiling key themes and their relationships in ethnic entrepreneurship, which will help the academia and practitioners better understand contemporary ethnic entrepreneurship studies.

Keywords Co-citation analysis, Entrepreneurship studies, Ethnic entrepreneurship, Knowledge network, Intellectual structure, Entrepreneurialism, Research

Paper type Research paper

With the increasingly globalized world economy and the large scale of labor migration across the globe, the past years have seen an emerging need to understand ethnic entrepreneurship and the driving forces for ethnic entrepreneurial activities (Chen and Tan, 2009; Down, 2010; Drori et al., 2009). Studies in this newly emerged academic field have produced impressive literature on ethnic entrepreneurship and immigrant entrepreneurial activities (Bagwell, 2008; McPherson, 2008; Panayiotopoulos, 2008; Rusinovic, 2008). Great efforts have thus been made to explore the literature of ethnic entrepreneurship studies in order to help better understand related research subjects.
and their contributions to the development of ethnic entrepreneurship research (Low and MacMillan, 1988). However, there is lack of recent studies on contemporary ethnic entrepreneurship and it is not clear how contemporary ethnic entrepreneurship research has evolved, what is the status of current ethnic entrepreneurship studies, and what are the main research themes and their relationships. The objective of this study is to bridge this gap by exploring the status of contemporary ethnic entrepreneurship studies in 1999-2008 and further to profile different research themes in the development of ethnic entrepreneurship.

In addition, while ethnic entrepreneurship has established itself as an academic discipline, an emerging field of study (Chen and Tan, 2009; Drori et al., 2009), its establishment has been a slow process probably because ethnic entrepreneurship researchers prefer to publish their work in more established discipline-specific journals. Another major factor that may slow down the development of ethnic entrepreneurship as an independent field lies in the subject’s high degree of interaction with other disciplines, a result of its high interdisciplinarity. This overlapping blurs the boundaries of ethnic entrepreneurship and as a result its distinct theoretical model and analytical tools are unjustly attributed to other competing fields. With limited resources contributing to ethnic entrepreneurship research, the cross-fertilization of ideas on ethnic entrepreneurship will be very difficult to achieve. Therefore, an overview of contemporary ethnic entrepreneurship research is greatly needed to better understand how ethnic entrepreneurship research evolves and what its potential future research directions are. This study is to provide such an overview by mapping major research themes in ethnic entrepreneurship research in 1999-2008 and thus provides a useful tool for scholars to conduct integrated studies on ethnic entrepreneurial activities. Citation and co-citation analysis will be used as the principal method to identify the invisible network of knowledge underlying ethnic entrepreneurship literature. The results of this study will be able to provide ethnic entrepreneurship researchers with a unique map to examine ethnic entrepreneurship-related publications and to provide a systematic and objective mapping of different research themes and relationships in the development of ethnic entrepreneurship research.

Studies of academic literature: citation and co-citation analysis

A large number of techniques can be used to study a body of literature. Most frequent is the simple literature review whereby a highly subjective approach is used to structure early works, which often leads to more controversies than solutions on the merit of certain academic works. Objective and quantitative techniques have recently become popular with more online databases available for citation and co-citation analysis and for systematic review to examine the invisible knowledge network in the communication process of a given field (Pilkington and Teichert, 2006; Ma et al., 2008). These techniques receive increasing attention because they are objective and unobtrusive (Garfield, 1979; Pilkington and Teichert, 2006).

Among various methods developed in the last three decades, citation and co-citation analysis is the earliest and the most widely used method to quantify academic communication process. Merton (1979) claimed: “Citation indexing has been a standard of scientific bibliography for more than a decade but its sociological and historical research potentials have not yet been fully realized” (p. 1). Within a given academic discipline, researchers typically cluster into informal networks that focus on common questions in common ways (Price, 1963), and within these networks, one scholar’s ideas and results may be picked up by another, tested, extended, and refined. Therefore, the
history of exchanges between members of these networks, represented by the network of citations, describes the intellectual structure of a field. When one scholar cites prior work of another, citation and co-citation analysis provides a tool of documenting this process. Citation and co-citation analysis is based on the premise that authors cite papers they consider important to the development of their research. Consequently, heavily cited papers are likely to have exerted greater influence than those less frequently cited.

Many authors have also studied the strengths and limitations of citations, the “raw materials” of citation analysis. Cronin (1984) has submitted the citation process to a detailed theoretical scrutiny that includes a review of the role and the content of citations. He cautioned on the use of citation and citation-based analysis as a research method because one occasionally encounters citations that are casual, perfunctory, or immaterial. There are also instances when a study is cited in a negation mode, which could cause misunderstanding on the value of the cited publication. Sometimes scientific merits may not always be the sole reason why an author will cite a published paper. Factors such as the reputation of the cited author and the visibility, prestige, and accessibility of the cited publications may affect the work an author chooses to cite (Cronin, 1984; Ma, 2005).

In spite of the reservations of Cronin (1984) and other authors, scholars have begun to use citation and co-citation analysis to examine the knowledge network of various management literatures. For example, Ponzi (2002) mapped the intellectual structure and interdisciplinary breadth of knowledge management in its early stage of development, using principle component analysis on a co-citation matrix. Ramos-Rodriguez and Ruiz-Navarro (2004) examined the intellectual structure of strategic management research with a similar analysis on papers published in the Strategic Management Journal. Acedo and Casillas (2005) explored the research paradigms of international management research with an author co-citation. More recently, Ma et al. (2008) examined the dynamic change in the research paradigms of conflict management studies, and Nerur et al. (2008) examined the intellectual structure of strategic management field by applying factor analysis, multidimensional scaling, and co-citation analysis. The current study will follow this line of research to examine the intellectual structure of contemporary ethnic entrepreneurship research and to map its invisible knowledge network and key research clusters in the past ten years in order to provide a broader picture of contemporary ethnic entrepreneurship studies.

**Mapping contemporary ethnic entrepreneurship studies**

**Method**

This study used citation data, including journal papers, authors, publication journals, publication date, and cited references to explore the intellectual structure of ethnic entrepreneurship research between 1999 and 2008. This time period was chosen because the ethnic entrepreneurship studies in this period represent the most updated and probably also the most important research in the field of ethnic entrepreneurship (up to the date when the data were collected for this study). This time period was further divided into two stages, the first five years from 1999 to 2003 and the second five years from 2004 to 2008 in order to better reveal the changes in key research themes in the last ten years. Citation and co-citation analysis was the main method for this study. With citation and co-citation analysis, the invisible knowledge network of ethnic entrepreneurship literature was mapped to describe the knowledge distribution process in ethnic entrepreneurship studies.
In this study, Social Sciences Citation Index (SSCI) was used for analysis. SSCI is a widely used database, which collects citation data published in over 2,000 leading academic journals covering more than 50 disciplines. Using SSCI provided the most comprehensive and widely accepted databases of ethnic entrepreneurship publications.

Unlike prior studies, the data used in this study were not drawn from journals chosen by peer researchers (Holsapple et al., 1993; Walstrom and Leonard, 2000). Instead, the entire database of SSCI from 1999 to 2008 served as the universe for analysis. In order to generate the data needed, the “key word” method was used to search papers’ titles and abstracts collected in SSCI. Using “ethnic entrepreneurship,” “ethnic entrepreneur,” “ethnic business,” “ethnic enterprise,” “immigrant business,” “immigrant enterprise,” “immigrant entrepreneur,” “immigrant entrepreneurship,” and all possible derivatives and combinations of these terms as key words, this study generated a database of 403 journal papers included in SSCI on ethnic entrepreneurship, which further cited 18,656 publications as references. The cited references in these publications included books and journal papers.

Results

Citation analysis. To identify the key publication and scholars who laid down the ground work for ethnic entrepreneurship research, citation data were tabulated for each of the source documents. The citation analysis produced interesting background statistics, as shown in the following tables. Table I lists the most cited journals in ethnic entrepreneurship research in 1999-2008, among which American Sociological Review, International Migration Review, and American Journal of Sociology were the top three most cited journals, followed by Ethnic and Racial Studies and Journal of Ethnic and Migration Studies for both the first five years (1999-2003) and the second five years (2004-2008). This result indicated that these five journals had established their prominent statuses in the field of ethnic entrepreneurship as the main research outlets. The general pattern of the most cited journals showed that ethnic entrepreneurship research featured sociology-specific journals prominently, together with ethnic, race, and migration-related journals, with a cluster of social, urban, and regional research-related journals also evident. It is important to notice that entrepreneurship-specific journals seemed missing from the most cited journal list,

<table>
<thead>
<tr>
<th>Journal/book</th>
<th>Citation</th>
<th>Journal/book</th>
<th>Citation</th>
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<tbody>
<tr>
<td>International Migration Review</td>
<td>119</td>
<td>International Migration Review</td>
<td>150</td>
</tr>
<tr>
<td>American Journal of Sociology</td>
<td>117</td>
<td>American Journal of Sociology</td>
<td>103</td>
</tr>
<tr>
<td>Ethnic And Racial Studies</td>
<td>58</td>
<td>Ethnic and Racial Studies</td>
<td>81</td>
</tr>
<tr>
<td>Ethnic Entrepreneurs (B)</td>
<td>54</td>
<td>Journal of Ethnic and Migration Studies</td>
<td>73</td>
</tr>
<tr>
<td>Journal of Ethnic And Migration Studies</td>
<td>52</td>
<td>Journal of Business Ethics</td>
<td>67</td>
</tr>
<tr>
<td>Social Forces</td>
<td>49</td>
<td>Social Forces</td>
<td>57</td>
</tr>
<tr>
<td>Urban Studies</td>
<td>49</td>
<td>Immigrant Entrepreneurs (B)</td>
<td>56</td>
</tr>
<tr>
<td>Intl Journal of Urban and Regional</td>
<td>47</td>
<td>American Economic Review</td>
<td>52</td>
</tr>
<tr>
<td>Research</td>
<td>40</td>
<td>Annual Review of Sociology</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Journal of Small Business Management</td>
<td>52</td>
</tr>
</tbody>
</table>

Table I.
Top 10 most cited journals/books in ethncial entrepreneurship literature
which indicates that ethnic entrepreneurship research is still largely in the domain of sociology and ethnic studies. In other words, research on ethnic entrepreneurship has emphasized more on the demographic features of ethnic entrepreneurs and their social impact on regional development, and less on their roles as entrepreneurs involving in business activities.

The most cited scholars and the most influential publications were then identified by their total counts of citations within relevant time frames. The results in Table II showed that the most cited scholars in the field of ethnic entrepreneurship between 1999 and 2003 were Light, Waldinger, Portes, Ram, and Bonacich. The most cited scholars in the second five years (2004-2008) remained the same except a slight change in the ranking of these scholars wherein Portes replaced Waldinger as the second most cited scholar in ethnic entrepreneurship research. These scholars were superstars in the field of ethnic entrepreneurship research, had the most influence on the development of ethnic entrepreneurship research, and to certain extent, collectively defined this field.

Tables III and IV list the most influential publications in the first five years and the second five years, respectively. For the first five years, the most cited ethnic entrepreneurship publication was Waldinger et al.’s (1990) book, Ethnic Entrepreneurs: Immigrant Business in Industrial Societies, followed by Light and Rosenstein’s (1995) book, Race, Ethnicity, and Entrepreneurship in Urban America, and Barrett et al.’s (1996) paper, Ethnic Minority Business: Theoretical Discourse in Britain and North America. For the second five years, the most cited ethnic entrepreneurship publication remained the same, but the second most cited publication was Light’s (1972) book, Ethnic Enterprise in America: Business and Welfare Among Chinese, Japanese and Blacks, followed by Light and Gold’s (2000) book, Ethnic Economies. The change in the ranking of highly cited publications reflects the shift of research paradigms in the field of ethnic entrepreneurship (to be discussed later in the co-citation analysis). Compared with the ranking of scholars in Table II, the publication-based ranking in Tables III and IV places more emphasis on the quality (as opposed to the quantity) of the publications produced by a given scholar than the ranking of scholars based on the frequencies with which a particular author has been cited, which thus provides more insights on the pattern change of research themes in ethnic entrepreneurships research.

<table>
<thead>
<tr>
<th>Author</th>
<th>1999-2003</th>
<th>Author</th>
<th>2004-2008</th>
</tr>
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<tbody>
<tr>
<td>Light, I.</td>
<td>106</td>
<td>Light, I.</td>
<td>108</td>
</tr>
<tr>
<td>Waldinger, R.</td>
<td>74</td>
<td>Portes, A.</td>
<td>76</td>
</tr>
<tr>
<td>Portes, A.</td>
<td>65</td>
<td>Waldinger, R.</td>
<td>49</td>
</tr>
<tr>
<td>Ram, M.</td>
<td>42</td>
<td>Ram, M.</td>
<td>33</td>
</tr>
<tr>
<td>Bonacich, E.</td>
<td>30</td>
<td>Bonacich, E.</td>
<td>30</td>
</tr>
<tr>
<td>Aldrich, H.E.</td>
<td>29</td>
<td>Kloosterman, R.</td>
<td>28</td>
</tr>
<tr>
<td>Wilson, K.L.</td>
<td>29</td>
<td>Sanders, J.M.</td>
<td>23</td>
</tr>
<tr>
<td>Sanders, J.M.</td>
<td>26</td>
<td>Bates, T.M.</td>
<td>21</td>
</tr>
<tr>
<td>Barrett, G.</td>
<td>23</td>
<td>Rath, J.</td>
<td>21</td>
</tr>
<tr>
<td>Zhou, M.</td>
<td>22</td>
<td>Zhou, M.</td>
<td>21</td>
</tr>
</tbody>
</table>

Table II. Top 10 most cited scholars in ethnic entrepreneurship literature
Co-citation analysis is a bibliometric technique that information scientists use to map intellectual structure of an academic field (Small, 1993). It involves counting paired documents or co-cited documents, from a chosen field. Co-citation analysis compiles co-citation counts in matrix form and statistically scales them to capture a snapshot at a distinct point in time of what is actually a changing and evolving structure of knowledge network (Pilkington and Teichert, 2006; Small, 1993).

Social network analysis techniques were then used to graph the relations in the co-citation matrix and to identify the strongest links and core areas of interest in ethnic entrepreneurship research (Pilkington and Teichert, 2006). In essence, a co-citation matrix is very similar to a social network, a network of linked publications, which

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Co-citation data were tabulated in this study for every source document using the Excel package. Many of the authors had very few citations and were either unlikely to have had a significant impact on the development of ethnic entrepreneurship or were too recent to have had time to impact on the literature. To facilitate our analyses and to improve the probability of success, all publications included in the final data set had at least seven citations. Based on the total number of citations, top publications in the field of ethnic entrepreneurship were identified (please refer to Tables III and IV), and a co-citation matrix was built before a pictorial map was drawn to describe correlations among different scholars. In doing so, the procedure recommended by White and Griffith (1981) was followed.

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makes it appropriate for the use of social network analysis techniques to analyze interlinked co-citation relationships. The co-citation matrix representing key publications from ethnic entrepreneurship research can be shown diagrammatically as a network with locations determined using Euclidian distances. Using the graphing programmer NETDRAW (Version 2.0 which comes with the social network analysis software suite UCINET, Borgatti et al., 2002), this study mapped the core research themes in the field of ethnic entrepreneurship. Figures 1 and 2 show these core research themes in ethnic entrepreneurship studies, based on sampled papers with links of greater than or equal to two co-citations shown in the network (The numbers in the figures represent ID numbers of different publications as listed in Tables III and IV). Different node shapes come from performing a faction study of these authors, which seeks to group elements in a network based on the sharing of common links to each other. The diagrams suggest that research on ethnic entrepreneurship was concentrating on the interactions between ethnic and immigrant enclaves, social embeddedness, ethnic entrepreneurs, immigrant self-employment, and transnational entrepreneurs. The few publications centered in Figures 1 and 2 had the most influence on ethnic entrepreneurship research. Their heavy citations and intensive interlinks with each other undoubtedly indicated their prestigious status in the development of ethnic entrepreneurship research and their clustered research themes collectively defined future research directions of ethnic entrepreneurship studies.

<table>
<thead>
<tr>
<th>ID</th>
<th>Publication</th>
<th>Citations</th>
<th>ID</th>
<th>Publication</th>
<th>Citations</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Bonacich, E. (1973)</td>
<td>18</td>
<td>30</td>
<td>Yoon, I.J. (1991)</td>
<td>9</td>
</tr>
<tr>
<td>10</td>
<td>Kloosterman, R. et al. (1999)</td>
<td>14</td>
<td>35</td>
<td>Light, I. et al. (1994)</td>
<td>8</td>
</tr>
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</table>

Table IV. Top 51 publications selected for co-citation analysis: 2004-2008
The intellectual structure of Stage I (1999-2003): Figure 1 clearly indicates that the most influential research on ethnic entrepreneurship clustered together around five core research themes in the first five years. The first main research theme was on ethnic and immigrant enclave economies wherein researchers explored different aspects of ethnic enclave economies and relevant issues. For example, Nee et al. (1994) (No. 47 publication in Figure 1) conducted a longitudinal analysis on the employment transitions of Asian immigrants in the greater Los Angeles area, within and outside the ethnic economy, and the results showed that many newcomers to this area actually first turned to ethnic economy in their gradual establishment. Their study also showed that while self-employment or starting ethnic businesses remained very common among immigrants, many immigrants preferred to seek jobs outside their ethnic economy for higher wages and better work conditions. Zhou and Logan (1989) (No. 40 in Figure 1) examined ethnic labor market advantages in the context of Chinese immigrants. In addition, Logan et al. (1994) (No. 46 in Figure 1) compared ethnic economies in metropolitan Miami and other major cities, and Sanders and Nee (1996) (No. 19 in Figure 1) analyzed Asian and Hispanic immigrant self-employment in New York city and Los Angeles, both of which had significant impact on the development of ethnic entrepreneurship research.

The second research cluster in the first five years was on ethnic minority business, and scholars attracted to this theme discussed ethnic businesses of a variety of ethnic minorities. For instance, Metcalf et al. (1996) (No. 26 in Figure 1) compared four
subcategories of South Asian ethnic businesses: Indians – Hindus and Sikhs, African-Asians, Pakistanis, and Bangladeshis, and cultural attributes were then used to explain different performance of different ethnic minority groups. Their study found that business practices and attitudes of Indian, Pakistani, and east African-Asians were dramatically different in that self-employed women were keen to stress the importance of family cohesion and men were happier if their women worked in their family businesses rather than elsewhere (Metcalf et al., 1996). Basu’s (1998) study (No. 28 in Figure 1) examined the motives of business entry among different ethnic groups and the results showed that Indian entrepreneurs seemed to have different motives in their decision to start a business, in comparison with Bangladeshi and Pakistani entrepreneurs. Furthermore, self-employment among ethnic groups were found often influenced by their ability to access financial resources, which was further complicated by the complexity of informal loan arrangements, usually operated within certain ethnic groups (Basu, 1998). Therefore, Basu (1998) contended that the nature of ethnic entrepreneurial entry predominantly depended on the access to informal sources of capital and information, as well as on the entrant’s previous experiences. Similarly, Phizacklea (1990) (No. 49 in Figure 1) explored the ethnic fashion clothing industry and claimed that this industry survived because it was greatly assisted by the presence of ethnic minority entrepreneurs and cheap labors. Jones et al. (1992) (No. 23 in Figure 1) explored the issue of ethnic minority business from a different perspective: they did a review on academic studies of ethnic minority business and found this field was dominated by large-sample quantitative studies, which, on the one hand, told us much about the broad anatomy of these sub-economies, but on the other hand, tended to miss some of the nuances of entrepreneurial motivation and behavior in the enquiry (Ram and Jones, 1998) (No. 17 in Figure 1).
The third research theme in this period was on the constraints for ethnic enterprises. Ram and Deakins (1996) (No. 35 in Figure 1) suggested that the high rates of self-employment among ethnic groups might be due to the racial discrimination they experienced in obtaining suitable employment opportunities rather than to some “cultural predispositions” toward self-employment. In addition, Deakins et al. (1997) (No. 42 in Figure 1) stressed that constraints for successful diversification and development were mainly about accessing resources, especially financial resources, and accessing new markets. Use of social networks was then recommended to form a bridge into the mainstream businesses (Deakins et al., 1997). Furthermore, in her study on global cities, Sassen (1991) (No. 21 in Figure 1) argued that ethnic minority entrepreneurs should be cherished for their active contribution to economic and urban regeneration.

Another group of scholars examined social network and social embeddedness in order to deal with the constraints for ethnic enterprises’ success, which formed another research cluster in this period. For example, Granovetter (1985) (No. 22 in Figure 1) argued that social networks were key determinants of economic action for ethnic businesses. Social embeddedness implied that entrepreneurial behaviors were constrained by ongoing social relations, and therefore the degree of embeddedness was an important resource influencing ethnic enterprises’ future capability and expected performance. In a similar vein, Portes and Sensenbrenner (1993) (No. 14 in Figure 1) suggested that, while a strong partnership is expected to contribute to an ethnic firm’s capability and flexibility, the embedded mutual obligations of a cohesive partnership could also become a liability, hindering an organization’s desire and ability to pursue new opportunities outside the relationship. They contended that human capital, such as skills, education and experience, and market capital, which included tangible material goods and social capital, jointly facilitated ethnic entrepreneurial activities.

The last research cluster in this period focussed on mapping the demographic picture of ethnic entrepreneurs in the USA. Razin and Light (1998) (No. 38 in Figure 1) investigated the characteristics of ethnic entrepreneurs in 16 largest metropolitan regions in the USA. For instance, they found that Taiwanese ethnic entrepreneurs had relatively high rates of self-employment, particularly in cities such as Miami, San Diego, Houston, and Atlanta. In addition, Light’s (1979) cultural theory (No. 44 in Figure 1) offered a theoretical framework for the analysis of recent immigrants’ entrepreneurial activities, who argued that diverse socio-cultural backgrounds and resources immigrant groups brought to the USA were very helpful if they chose to become an entrepreneur.

The intellectual structure of Stage II (2004-2008): Figure 2 showed that ethnic entrepreneurship research also clustered together in the second five years and four major research themes were extracted from the ethnic entrepreneurship literature. The first research cluster was still focussed on ethnic enclave economies, with more scholars attracted to this topic and more refined debates on the implications of ethnic enclaves, often from a positive perspective. For example, Sanders and Nee (1987) (No. 22 in Figure 2) argued that self-employment in an enclave economy appeared to be well rewarded for a set of human capital characteristics. In a similar vein, Zhou (1992) (No. 23 in Figure 2) showed Korean immigrant women tended to view the nail salon occupation as a good employment option because its flexible working hours gave them more time to manage childcare or household responsibilities, similar to Chinese women workers engaged in the garment industry in New York's Chinatown.
In addition, Portes and Zhou (1996) (No. 29 in Figure 2) challenged the argument that ethnic self-employment failed to produce an earning advantage. Instead, their study found a substantial advantage attached to self-employment, and they also found this advantage was concentrated among successful entrepreneurs. Wilson and Portes (1980) (No. 17 in Figure 2) also argued in their enclave hypothesis for the benefits immigrant enterprises brought to the owners, and contended that even facing substantial obstacles, immigrant entrepreneurs were still able to overcome these difficulties by relying on family, friends, and neighbors as factory, labor, and product markets. Taken together, this cluster of integrated research on ethnic enclave economies in ethnic entrepreneurship has raised the question whether ethnic enclaves help improve the poor socioeconomic situations of immigrants.

The second research cluster was around immigrant self-employment, mainly about self-employment among immigrants and about the differences in self-employment rates between immigrants and mainstream labor forces (Borjas, 1986; Borjas and Bronars, 1989; Evans and Leighton, 1989; Light, 1979; Sanders and Nee, 1996). Based on the data from the 1970 and 1980 US censuses, Borjas and colleagues found that the self-employment rates of immigrants exceeded 15 percent for some immigrant groups in the USA, with many immigrant groups’ self-employment rates exceeding those of local Americans (Borjas, 1986; Borjas and Bronars, 1989) (No. 20 and No. 34 in Figure 2). Later on, Fairlie and Meyer (1996) (No. 11 in Figure 2) examined the data from the 1990 US census and found no support for the home-country self-employment hypothesis as advocated by other scholars (e.g. Yuengert, 1995) (No. 39 in Figure 2). In other words, immigrant groups who had emigrated from countries with high self-employment rates did not necessarily have high self-employment rates in the USA. Fairlie and Meyer (1996) further showed that it was not the disadvantaged groups, but the more advantaged immigrant ones, who had the highest self-employment rates (Light, 1979) (No. 43 in Figure 2).

The third major research cluster in this stage was around the survival and growth of ethnic enterprises (Basu and Altinay, 2002; Kloosterman et al., 1999; Metcalf et al., 1996; Ram et al., 2003), which as Storey (1994) (No. 49 in Figure 2) argued were greatly influenced by the interaction between the characteristics of entrepreneurs, the nature of firms, and the chosen strategic areas. A comparison of ethnic minority businesses with mainstream businesses demonstrated that class culture often trumped ethnic culture in influencing the outcomes of ethnic businesses (Mulholland, 1997) (No. 46 in Figure 2). Therefore, disadvantaged groups such as working class people and migrant laborers, provided that they chose to start their own businesses, could be transformed into international business magnates (Mulholland, 1997). In addition, Mulholland (1997) suggested that class-related social capital was more important than ethnically derived capital and that there were more similarities between ethnic groups than within them in terms of entrepreneurial activities.

The last research cluster between 2004 and 2008 was on transnational entrepreneurs and immigrant networks, around which a group of scholars examined immigrants and ethnic minorities and their use of social and international networks in ethnic businesses. Based on the middleman theory of ethnic minorities (Bonacich, 1973) (No. 5 in Figure 2), Waldinger (1996) (No. 16 in Figure 2) proposed a two-stage model of immigrant niche with its first stage as a phase of specialization by skills, predispositions, and linguistic factors, and the second stage, called “occupational closure,” embodying the significance of ethnic networks in the areas of information, supply of labor force, and resource mobilization. In addition, Portes
et al. (2002) extended this line of research to transnational network and transnational entrepreneurship (No. 21 in Figure 2), and they examined a specific form of entrepreneurship in which immigrant entrepreneurs took advantage of opportunities that cross-national borders. Their studies showed that the differences in individual entrepreneurs, their ethnic networks, and the broader social context affected the activities of transnational entrepreneurs.

Future research directions
The changing paradigms of ethnic entrepreneurship research from the first five years (1999-2003) to the second five years (2004-2008) reveal some important insights for future ethnic entrepreneurship studies. First, future research on ethnic entrepreneurship will be most likely to attract more scholars and resources to research on immigrant networks and transnational entrepreneurs, with a few studies already focusing on this aspect of ethnic entrepreneurship (e.g. Jones et al., 2010). The high interdisciplinary of ethnic entrepreneurship research could become an asset to provide new ideas and new perspective which could push the field forward. The emerging research cluster in the second five years (as in Figure 2) shows that scholars have gone beyond studying ethnic entrepreneurs as a disadvantaged group and their business activities in the host countries and started to explore immigrant entrepreneurs’ unique social networks and their connections with their countries of origin which often facilitate their success in transnational entrepreneurial activities. Immigrant entrepreneurs’ knowledge of the culture, language, and market in their countries of origin, which used to be marginalized or considered irrelevant in the host societies, now becomes their competitive advantages in their border-crossing entrepreneurial activities. In addition, transnational entrepreneurship is a multi-faceted process which immigrant entrepreneurs are engaged in to discover and enact business activities across national borders. Given that a significant proportion of immigrant entrepreneurs have become transnational in order to ride the wave of globalization, this research cluster can offer a fertile ground to advance existing entrepreneurial research at the intersection of the ethnic entrepreneurship literature and the international entrepreneurship literature (Chen and Tan, 2009; Drori et al., 2009; Tan, 2002).

Another research theme for future ethnic entrepreneurship studies is about national culture and ethnic entrepreneurship, which is also closely related to the first one, transnational entrepreneurs (Tan, 2002). As shown in Table IV, Hofstede's (2001) work on national culture has emerged as one of the key publications in the knowledge network of contemporary ethnic entrepreneurship research (ranked as the ninth most cited publication) in the second five years (2004-2008). Within the increasingly globalized world economy, cross-border entrepreneurial activities and overseas business opportunities are gradually becoming an integral part of many ethnic and immigrant enterprises, and consequently, what is the relationship between the national cultures from which immigrant entrepreneurs originate and their entrepreneurial activities requires academic inquiry (e.g. Smallbone et al., 2010). Research has begun to compare cross-cultural differences in ethnic businesses and related concepts as discussed in previous sections in an attempt to build a comprehensive theory on ethnic entrepreneurship. With more research on immigrant networks and transnational entrepreneurs, this line of research on national culture and ethnic entrepreneurial activities is likely to attract more scholars and resources in future and it will be a fruitful forum for future ethnic entrepreneurship studies.
A third-related topic for future ethnic entrepreneurship studies will be theory development and theory refinement in the ethnic entrepreneurship field. Given that theory development in ethnic entrepreneurship research has been an important research topic in the past few years, such as research on ethnic enclave economies and renewed research efforts in redefining ethnic enclave economies and relevant theoretical exploration, it is expected that the theorizing process in ethnic entrepreneurship will be continued and scholars will keep searching for a better framework that could integrate different concepts and ideas in ethnic entrepreneurship field (recent studies including: Jones and Ram, 2010; Ram et al., 2011; Weitzel et al., 2010). For instance, one of the most significant opportunities now facing those doing ethnic entrepreneur research and transnational entrepreneur research is to engage in more systematic pursuit of theory building research and to use the emerging phenomenon of transnational entrepreneurs as a context to generate new theories. This theory building process might be particularly important to recognize the degree to which transnational entrepreneurs are not just immigrant entrepreneurs but are distinctive agents of change relative to other entrepreneurs whose business activities have also crossed national borders (Chen and Tan, 2009). Another direction for theory development and refinement in ethnic entrepreneurship research is to examine ethnic entrepreneurs more from their dispositions as an entrepreneurs and less from their ethnic background so as to provide more insights on their entrepreneurial activities’ managerial implications for practitioners. Past research has been focussing on their ethnic background, which can be seen from the fact that the majority of ethnic entrepreneurship-related publications were published in sociology and ethnic studies-related journals, and somehow neglected the fact that ethnic entrepreneurs were also entrepreneurs which could be important change agents for the host societies, just like their mainstream counterparts.

To explore whether more recent publications have followed these directions in their pursuit of a better understanding of ethnic entrepreneurship research[1], we collected the data of 2009-2011 (as of October 2011) using the same method. The preliminary analysis of the data, including 285 journal publications and 14,696 cited references, provides strong support for future research directions as discussed in previous sections. First of all, within less than three years, this field has produced more than half of the total journal publications and more than two-thirds of the total cited references generated in the past ten years. The large number of publications on ethnic entrepreneurship confirms our prediction that, along with the increased interests in ethnic entrepreneurial activities in the globalized world market and the large scale of labor migration across the globe, more scholars will join this field and more resources will be attracted to ethnic entrepreneurship research, which will help theory development and theory refinement in the field of ethnic entrepreneurship.

Second, using the same method, we applied co-citation analysis to the ethnic entrepreneurship research between 2009 and 2011, and consequently obtained seven independent research clusters (please refer to Table V and Figure 3). Compared with previous research in the past ten years, the research on ethnic entrepreneurship in 2009-2011, on the one hand, still placed much emphasis on ethnic enclave economies (Cluster I in Figure 3) and immigrant self-employment (Cluster II in Figure 3) wherein Constant and Zimmermann (2006) and Hout and Rosen (2000) continued the efforts in refining the theory on immigrant self-employment, and on the other hand, scholars had also tried to revised traditional theories on immigrant self-employment by examining this issue from new perspectives (Cluster VI in Figure 3 on immigrant self-employment...
and social network) (Bates, 1994; Sanders and Nee, 1996). At the same time, as predicted in previous discussions, theory development and theory building was also ongoing in the field of ethnic entrepreneurship, as illustrated by Cluster IV on immigrant segmented assimilation (Portes and Zhou, 1993) and Cluster V on immigrant and social capital/human capital (Coleman, 1988; Portes, 1998). Therefore, the development of ethnic entrepreneurship research in 2009-2011 has been consistent with the prediction on theory development, theory refinement, and new theory building as discussed in previous sections.

In addition, the other two research clusters on ethnic entrepreneurship in 2009-2011, Cluster III on transnational entrepreneurs and immigrant networks (Granovetter, 1973; Portes et al., 2002; Saxenian, 2002) and the newly emerged Cluster VII on culture and immigrant entrepreneurship (Basu, 1998; Basu and Altinay, 2002) are consistent with our prediction that immigrant networks and transnational entrepreneurs as well as national culture and immigrant entrepreneurship will become important topics for future ethnic entrepreneurship research, and thus further confirm our prediction on future research directions in ethnic entrepreneurship research.

Conclusions
Research on ethnic entrepreneurship has been developing rapidly in the past years, yet the status of ethnic entrepreneurship literature has received little attention.
An overview of contemporary ethnic entrepreneurship research is thus in great need in order to provide a broader perspective on the nature and scope of entrepreneurship studies within ethnic groups and to bring new insights and methods for future studies. This study exposed researchers to a new way of profiling key research themes and their relationships in ethnic entrepreneurship field, which will help academia and practitioners better understand ethnic entrepreneurship studies. Using citation data from SSCI between 1999 and 2008, this study investigated ethnic entrepreneurship research and identified the invisible network of knowledge production in ethnic entrepreneurship field. The co-citation analysis showed that the field was organized around five different research clusters between 1999 and 2003, including ethnic and immigrant enclave economies, ethnic minority business, constraints of ethnic enterprises, social embeddedness, and ethnic entrepreneurs; and the research on ethnic entrepreneurship between 2004 and 2008 clustered around four major themes, including revisited research on ethnic and immigrant enclave economies, immigrant

**Figure 3.**
Research clusters in ethnic entrepreneurship literature: 2009-2011

**Notes:** The numbers in this figure represent publication IDs. Please refer to Table V for their corresponding publications.
self-employment, survival and growth of ethnic enterprises, and transnational entrepreneurs and immigrant networks. The preliminary analysis for the research between 2009 and 2011 provide strong supports for future research directions derived from the research patterns over the past decade.

The results of this study show that the past research on ethnic entrepreneurship has largely focussed on the change in social and economic status of ethnic entrepreneurs as well as the socioeconomic factors that may affect ethnic entrepreneurial activities, reflecting the struggling process for ethnic and immigrant entrepreneurs as an underrepresented group to seek for survival in the new lands. Scholars, mainly from sociology and ethnic studies, have made great contribution to the development of ethnic entrepreneurship. With the increasingly globalized world economy, ethnic and immigrant entrepreneurs become more important and they could act as important change agents. Future research from various disciplines should be able to make more meaningful findings in this aspect.

Conclusions and limitations
The academia has seen extensive research on ethnic entrepreneurship in recent years. This study explored the status of contemporary ethnic entrepreneurship research in the past ten years with a co-citation analysis method, and thus provides an overview of key research clusters in the field of ethnic entrepreneurship. In interpreting the results, readers are cautioned that the method of co-citation analysis and the database SSCI have their own limitations. In particular, while it gains more acceptance and popularity among academics, SSCI includes relatively a small number of entrepreneurship journals, partly because the field of ethnic entrepreneurship is still young and interdisciplinary. This somehow limits the publications included in this study. Future research should consider including other databases to cover more ethnic entrepreneurship-related studies. Given that the availability of relevant citation data are always lagging behind the actual publication of a particular document, future research is also encouraged to integrate content analysis into co-citation analysis in order to overcome the limitations associated with citation-based analysis. Content analysis can help determine the presence of certain concepts or ideas within texts or sets of texts. Researchers quantify and analyze the presence, meanings, and relationships of such concepts and ideas, then make inferences about the messages within the texts. With content analysis, the time lag, often associated with citation analysis, is not a problem anymore since current texts can always be used for analysis (while citation-based analysis requires current texts should be cited before they can become useful data points), yet content analysis alone often fails to provide reliable assessment on the merit of relevant publications as their values are best evaluated when they are cited and start to have impact on the literature of a particular field. Combining citation-based analysis and content analysis has the potential to provide more up-to-date understanding of current literature of a given academic field.

In addition, the implications of this study and the value of citation-based analysis and co-citation analysis should also be considered within the limit of citation itself because one occasionally encounters citations that are casual, perfunctory, or immaterial. There are also instances when a study is cited in a negation mode, which could cause misunderstanding on the value of the cited publication. Sometimes scientific merits may not always be the sole reason why an author will cite a published paper. Factors such as the reputation of the cited author and the visibility, prestige, and accessibility of the cited publications may affect the work an author chooses to cite.
(Cronin, 1984; Ma, 2005). In particular, time is an important factor that may put some new titles at a disadvantage. The fact that a publication is late to be understood, appreciated, and applied by others does not necessarily mean that the importance of this publication is minimal. Other methods should be incorporated in future studies to minimize possible misinterpretations.

Notwithstanding the qualifications, the results of this study have important implications. With the results of this study, scholars who are interested in ethnic entrepreneurship studies but are not quite familiar with the intellectual structure of contemporary ethnic entrepreneurship research will have a short-cut to keep abreast of core research themes without having to spend a great deal of their valuable time on “start-up” stage. The invisible knowledge network and the development path identified above can easily help them walk through the ethnic entrepreneurship literature by providing them with the most influential publications and researchers from different periods. This study will enable senior scholars to undertake more interdisciplinary research by providing a broader understanding of emerging thoughts and methodological development in ethnic entrepreneurship and enable junior scholars in ethnic entrepreneurship to concentrate on the core knowledge nodes in ethnic entrepreneurship research in the literature. More established scholars who plan to update their knowledge on ethnic entrepreneurship or who are developing collaborative or interdisciplinary work into the field of ethnic entrepreneurship can also benefit from this study.

In addition, instead of relying on armchair scholars’ opinions as the basis for various professional evaluations, this study used citation and co-citation analysis to provide an objective assessment of a large number of academic publications on ethnic entrepreneurship, which introduces a useful element of objectivity into the professional evaluation process. While citation and co-citation analysis may sometimes require more time and effort than peer judgments made on nothing but personal opinions, professional evaluations are certainly important enough to justify such an investment. Moreover, since citation practices provide an empirical basis for understanding and transmitting the norms in a field, researchers can also benefit by understanding the citing processes and outcomes because they both reveal the evolution of thoughts in a discipline and provide a sense of the future. As the research field evolves, theories are continuously advanced, competing, and research paradigms emerge.

Note

1. Thanks to one anonymous reviewer’s suggestions, we conducted an ad hoc analysis on the data between 2009 and 2011 to test our predictions as proposed in “Future Research Directions.” The results from 2009 to 2011 provide support for the predicted research directions.

References


**Further reading**


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