論　説

Research on Cross-border M&As by Japanese Construction Companies

Yuki Itoh* and Yukiko Konno†

Abstract

The overseas expansions of Japanese construction companies are increasing. However, there are companies that sell overseas subsidiaries and withdraw. This study analyses Japanese construction companies' announcement regarding sales of overseas subsidiaries. In particular, using types of text mining, this study examines the tendency of companies to withdraw from an overseas business through M&A. The results suggest that divestitures are conducted as part of business restructurings and management resources are concentrated on construction projects.

1 Introduction

In Japan, the Tokyo Olympic Games in 2020 will accelerate infrastructure development of railway networks and expressways and increase demand in the construction industry. However, in the long term, the construction industry will likely shrink because of declining population.

Therefore, Japanese construction companies are planning overseas expansions. Overseas orders to Japanese construction companies began in 1954, as reparations to Southeast Asian countries after World War II. In the 1970s, they benefited from oil projects in the Middle East. Since the 1980s, they have grown in Asia, with the expansion of official development assistance (ODA). Although these orders decreased sharply owing to the Asian currency crisis and the effect of the Lehman Brothers shock, they gradually recovered and reached a record of 1.85 trillion yen (see Figure 1). Furthermore, when the TPP begins, it will create a huge economic zone, incorporating about 40% of the world's GDP and over 10% of the world's population. To acquire market share, Japanese construction companies are attempting to expand overseas.

Foreign direct investment (FDI) implies investing capital overseas in order to conduct business and provide more products in more markets. Barney (2011) points out that FDI has both economic and financial merit. Small and Medium Enterprise Agency (2012) highlighted that emerging countries are at

* Faculty of International Social Sciences, Yokohama National University; 79-4 Tokiwadai, Hodogaya-ku, Yokohama 240-8501 Japan; yi toh7@gmail.com

† Faculty of Economics, Kokugakuin University; 4-10-28 Higashi, Shibuya-ku, Tokyo 150-8440, Japan; konno.yukiko@gmail.com

high risks because of sudden changes by governments and theft of technology and design. In addition, tax systems, accounting standards, regulations on securities and political and economic systems vary from one country to another. This has different impacts for each industry.

Although the engineers belonging Japanese construction companies have high technical capabilities, Japanese construction companies can hardly win international competitive bidding. As a result, Japan Society of Civil Engineers (2010) notes that overseas expansion can be delayed owing to lack of management. Japan Society of Civil Engineers (2010) mentions that the ability to negotiate when contracting in different lifestyles such as business customs, culture, meteorological environment is required to succeed in overseas business.

Most previous studies about FDI focused on overseas expansion rather than on withdrawals from overseas projects. Porter (1976) mentioned that while scholars researching divestment may acknowledge that the decision to exit a business is a difficult decision, few empirical studies have been written about this topic (Belderbos and Zou (2006) and McDermott (2010)). Existing studies regarding Japanese construction companies' withdrawals from a foreign operations lack objectivity because they were based on interviews and questionnaires.

Furthermore, because few studies exist on this topic, this study analyses Japanese construction companies' announcement regarding sales of overseas subsidiaries. Specifically, this study examines the tendency of companies to leave overseas businesses, using M&A, with a Dictionary-based approach and a joining Correlational approach, which are types of text mining.

Additionally, by using the same method, this study analyses why Japanese construction companies expand overseas business by means of M&A. It is possible to analyse the aim of Japanese construction companies' overseas expansion.

This study is organised as follows: Section 2 reviews the literature, Section 3 describes the dataset, explains the empirical methodology and presents the empirical results and Section 4 discusses the findings, provides conclusion.

2 Literature Review

2.1 Studies on withdrawing from overseas businesses

Studies about withdrawals from overseas projects suggest that they are caused largely by subsidiaries' poor financial performance. However, other factors, such as the host country's economic situation, as well as horizontal and vertical integration, influence withdrawals.

Boddewyn (1979) noted that foreign business divestments are caused by economic factors, such as poor performance of a subsidiary or a division, inability of a parent company to sustain further losses or lack of capital to finance necessary modernisation or expansion. Duhaime and Grant (1984), who examined 40 firms in the Fortune 500, found that divestments related to a business unit's strength, its relationship to other units in a firm and its parent firm's financial position, compared to its competitors are important influencers.

Berry (2010) examined 190 U.S. firms over a 20-year period (1981?2000) and showed that lower-cost production and new market opportunities influenced firms' divestment decisions. Fisch and Zschoche (2012) examined 596 production locations of 189 German manufacturing firms and noted that the

decision to divest a foreign operation because of rising and uncertain labour costs was moderated by the ease of dismissing workers in Germany and the opportunity to shift production to locations.

Benito (1997) examined certain divestment factors of Norwegian foreign manufacturing companies and found that foreign divestment was inversely related to economic growth in the host country, and that related (horizontal) subsidiaries were less likely to be divested than unrelated (non-horizontal) subsidiaries. Soule et al. (2014) examined variations in the rate of divestment by Burmese multinational firms and opined that divestment occurred in response to Burmese politics, including protests, the level of political freedom and the transparency of institutions.

2.2 Studies about withdrawals by overseas construction industry businesses

There are some studies on FDI using Dunning's eclectic (OLI) paradigm, which is often used in for the construction industry (Seymour (1987); Cuervo and Pheng (2003); Pheng and Hongbin (2004); Pheng et al. (2004); Pheng and Hongbin (2006); Abdul-Aziz and Awil (2010a); Abdul-Aziz and Awil (2010b); Abdul-Aziz and Cha (2010); Han et al. (2010)).

Pheng and Hongbin (2006), in particular, examined multinational Chinese construction companies and analysed patterns between various factors and performance that resulted from several advantages. They suggested that the following:

(a) a company will likely perform well, in terms of its ownership advantages, when it has a better reputation and more access to resources, as compared to local contractors.
(b) a company will likely achieve better results in terms of its locational advantages if a large number of Chinese competitors become the most important consideration in the host countries.
(c) a company that conscientiously avoids or reduces information searches and business negotiation costs will perform well because of its internalisation advantages.

Pheng and Hongbin (2004) examined the top 225 international contractors, as ranked by the ENR's 2001 survey, and found that firms exhibited different patterns in the internationalisation process, depending on their business strategies, indigenous market situations and historical factors.

Abdul-Aziz and Awil (2010a) and Abdul-Aziz and Awil (2010b) examined international Malaysian housing developers and the 'locational disadvantage concept' and suggested that housing developers need to appropriately weigh targeted host countries' locational disadvantages before making acquisitions there. Moreover, Abdul- Aziz and Cha (2010) analysed patterns of cross-border contractors' M&As and suggested that M&As are used more to penetrate third markets than to increase a corporation's size.

Cuervo and Pheng (2003) examined Singapore's transnational construction companies and found that the most important foreign country factors were the host governments' attitudes, policies and regulatory frameworks, social, political, cultural and geographic factors and the cost of doing business.

However, these are studies about FDI in the construction industry and they do not focus on withdrawal behaviour. Therefore, this study focuses on withdrawal behaviour for Japanese construction companies.

3 Empirical Analysis

3.1 Analysis method

Using text data mining, this study analyses textual information and examines why companies either expand into or withdraw from overseas businesses. The study uses KH Coder software created by Higuchi (2014) and a co-occurrence network (Corman et al. (2002)), which creates a network by connecting concepts frequently used together in data. It also makes use of Fruchterman and Reingold (1991) method of drawing networks of words and words , and that of Kamada and Kawai (1989), which draws networks of words, variables and headings.

These methods reveal a strong co-occurrence by connecting words with lines and words with similar appearance patterns, depending on whether or not they are connected by lines.

3.2 Data and variables

Using documents published by Japanese construction companies and from Recof M&A database, this study analyses why companies withdrew from overseas businesses and sold foreign subsidiaries, between 1996 and 2016.

However, because M&A among Japanese companies is difficult to grasp as a withdrawal from an overseas business on FDI, the study excludes cases where Japanese construction companies sold overseas business to other Japanese companies. The sample totals seven companies, and the companies used in the empirical analysis are shown in Table 1.

By using the same method, this study also analyses why Japanese construction companies, from 1996 to 2016, acquired overseas companies through M&A. On comparing Japanese companies that expanded overseas at the same time, it is possible to analyse withdrawals after clarifying the aim of overseas expansion by Japanese construction companies. The study's sample size is 32, and the companies used in the empirical analysis are listed in Table 2.

3.3 Results

First, this study analyses what the factors that caused Japanese construction companies to withdraw from their respective overseas businesses. The analysis, a result of a co-occurrence network, is provided in Figure 2. The results indicate that restructuring business majorly influences divestiture. These are summarised as follows.

(a) 'Business restructuring' and 'part of' are the biggest circles and they are tightly linked. This suggests that divestitures are conducted as part of a restructuring. In addition, a 'group' is linked to 'part of" and divestitures involve the entire group.

(b) 'Management resources', 'concentration' and 'construction business' are tightly linked. This reveals that management resources are concentrated on construction projects.

In other words, it can be read that the divestiture is conducted as part of the business restructuring, and the management resources are concentrated on the construction project.

Next, this study analyses the purpose of overseas business expansion through M&A for Japanese construction companies. From the co-occurrence network, shown in Figure 3, it can be seen that most companies wish to expand and strengthen their businesses through overseas expansion. The results are

summarised as follows.

(a) ‘Business’ has the largest circle, and it is tightly linked with ‘expansion’, ‘strengthening’ and ‘development’. It suggests that acquisitions expand and strengthen businesses.

(b) The circle of ‘expansion’ is large, and ‘region’, ‘market’ and ‘organisation’ are strongly connected. This suggests that marketing areas are developed, the market is expanding and the organisation has expanded by entering new businesses.

(c) ‘Development’ is tightly linked to ‘overseas’, ‘housing’ and ‘business’. This suggests that the purpose of overseas expansion is not only to increase sales in the construction industry but also to enter the housing sector.

In other words, it is suggested that business expansion and business strengthening are conducted by expanding business areas through M&A.

4 Discussion and Conclusion

Using a dictionary-based and correlational approach, which are types of text mining, this study examines the tendency of companies to withdraw from an overseas business through M&A. The results suggest that divestitures are conducted as part of business restructurings and management resources are concentrated on construction projects. Also, they suggest that the purpose of overseas expansion through M&A is to entry into and expansion of new businesses.

To analyse factors related to withdrawals from overseas business in more detail, this study also considers previous research and cases of individual companies.

Divestiture of the New Industry International Group (Shenyang) Real Estate Development Co., Ltd. by Shinnihon Corporation is mentioned as a ‘Profit settlement of the first and second phase collaborative projects and resolution of the third phase collaborative project (under development)’. It is consistent with Duhaime and Grant (1984), who highlighted that the strength of a business unit affects divestitures. To explain its divestiture of Kitano Australia Pt Ltd., Kitano Construction Corporation stated that ‘the reconstruction is severe due to sluggish room prices’. This was a financial problem and consistent with Boddewyn (1979), who suggested that poor performance of an overseas business can be the primary reason for withdrawal.

Sumitomo Densetsu Co., Ltd. mentions ‘recession in the economic situation in Indonesia and a delay in the progress of surrounding infrastructure’ as the reason for its divestiture of P.T. Cikarang Hijau Indah. This is consistent with Soule et al. (2014), who pointed out that the politics of an expanding country can influence a withdrawal. Individual cases reveal that companies withdraw from overseas operations because of various factors, such as the strength of business units, poor performance and the host country’s economic situation.

Although there are few studies on withdrawal, the process can be analysed using textual data mining, as performed in this study. This study, more specifically, analyses why Japanese construction companies expand overseas business through M&A. By comparing construction companies with those expanding overseas at the same time, it is possible to analyse withdrawal after clarifying Japanese construction companies’ goals for overseas expansion. This study can suggest how to make regional diversification more efficient and how to design industrial support measures. Its results can promote active regional

diversification.

References

Abdul-Aziz, Abdul-Rashid and Ahmed Usman Awil (2010a)“Examining the Internationalisation of Malaysian Housing Developers Using the Eclectic Paradigm,”*International Journal of Construction Management*, Vol. 10, No. 1, pp. 1-15.

Abdul-Aziz, Abdul-Rashid and Ahmed-Usman Awil (2010b)“Locational considerations and international Malaysian housing developers,”*Journal of Financial Management of Property and Construction*, Vol. 15, No. 1, pp. 7-20.

Abdul-Aziz, Abdul-Rashid and Shih Yee Cha (2010)“Patterns of Mergers and Acquisitions (M&As) of Cross-Border Contractors from Selected Countries,”*International Journal of Construction Management*, Vol. 10, No. 4, pp. 1-21.

Barney, Jay B. (2011) *Gaining and Sustaining Competitive Advantage*: Prentice Hall.

Belderbos, René and Jianglei Zou (2006)“Foreign Investment, Divestment and Relocation by Japanese Electronics Firms in East Asia,”*Asian Economic Journal*, Vol. 20, No. 1, pp. 1-27.

Benito, Gabriel R. G. (1997)“Divestment of foreign production operations,”*Applied Economics*, Vol. 29, No. 10, pp. 1365-1378.

Berry, Heather (2010)“Why Do Firms Divest?”*Organization Science*, Vol. 21, No. 2, pp. 380-396.

Boddewyn, Jean J. (1979)“Foreign Divestment: Magnitude and Factors,”*Journal of International Business Studies*, Vol. 10, No. 1, pp. 21-26, Mar.

Corman, Steven R., Timothy Kuhn, Robert D. Mcphee, and Kevin J. Dooley (2002)“Studying Complex Discursive Systems,”*Human Communication Research*, Vol. 28, No. 2, pp. 157-206.

Cuervo, Javier C. and Low Sui Pheng (2003)“Significance of location factors for Singapore transnational construction corporations,”*Engineering, Construction and Architectural Management*, Vol. 10, No. 5, pp. 342-353.

Duhaime, Irene M. and John H. Grant (1984)“Factors influencing divestment decision-making: Evidence from a field study,”*Strategic Management Journal*, Vol. 5, No. 4, pp. 301-318.

Fisch, Jan Hendrik and Miriam Zschoche (2012)“The effect of operational flexibility on decisions to withdraw from foreign production locations,”*International Business Review*, Vol. 21, No. 5, pp. 806-816.

Fruchterman, Thomas M. J. and Edward M. Reingold (1991)“Graph drawing by force-directed placement,”*Software: Practice and Experience*, Vol. 21, No. 11, pp. 1129-1164.

Han, Seung H., Du Y. Kim, Hyoun S. Jang, and Seokjin Choi (2010)“Strategies for contractors to sustain growth in the global construction market,”*Habitat International*, Vol. 34, No. 1, pp. 1-10.

Higuchi, Koichi (2014) *Measure text analysis for social survey: Aiming at succession of content analysis and development*: Nakanishiya publication, [in Japanese].

Japan Society of Civil Engineers (2010)“Toward civil engineers who will be responsible for the future society,”Technical report, Japan Society of Civil Engineers.

Kamada, Tomihisa and Satoru Kawai (1989)“An algorithm for drawing general undirected graphs,”*Information Processing Letters*, Vol. 31, No. 1, pp. 7-15.

McDermott, Michael C. (2010)“Foreign Divestment,”*International Studies of Management & Organization*, Vol. 40, No. 4, pp. 37-53.

Pheng, Low Sui and Jiang Hongbin (2004)“Estimation of international construction performance: analysis at the country level,”*Construction Management and Economics*, Vol. 22, No. 3, pp. 277-289.

(2006)“Analysing ownership, locational and internalization advantages of Chinese construction MNCs using rough sets analysis,”*Construction Management and Economics*, Vol. 24, No. 11, pp. 1149-1165.

Pheng, Low Sui, Hongbin Jiang, and Christopher H.Y. Leong (2004)“A comparative study of top British and Chinese international contractors in the global market,”*Construction Management and Economics*, Vol. 22, No. 7, pp. 717- 731.

Porter, Michael E. (1976)“Please Note Location of Nearest Exit: Exit Barriers and Planning,”*California Management Review*, Vol. 19, No. 2, pp. 21-33.

Seymour, Howard (1987) *The multinational construction industry*: Croom Helm.

Small and Medium Enterprise Agency (2012) *2012 White Paper on Small and Medium Enterprises in Japan*: Nikkei Printing.

Soule, Sarah A., Anand Swaminathan, and Laszlo Tihanyi (2014)“The diffusion of foreign divestment from Burma,”*Strategic Management Journal*, Vol. 35, No. 7, pp. 1032-1052.

〔Yuki Itoh, Associate Professor, Faculty of International Social Sciences, Yokohama National University〕
〔Yukiko Konno, Associate Professor, Faculty of Economics, Kokugakuin University〕

〔2019年１月10日受理〕

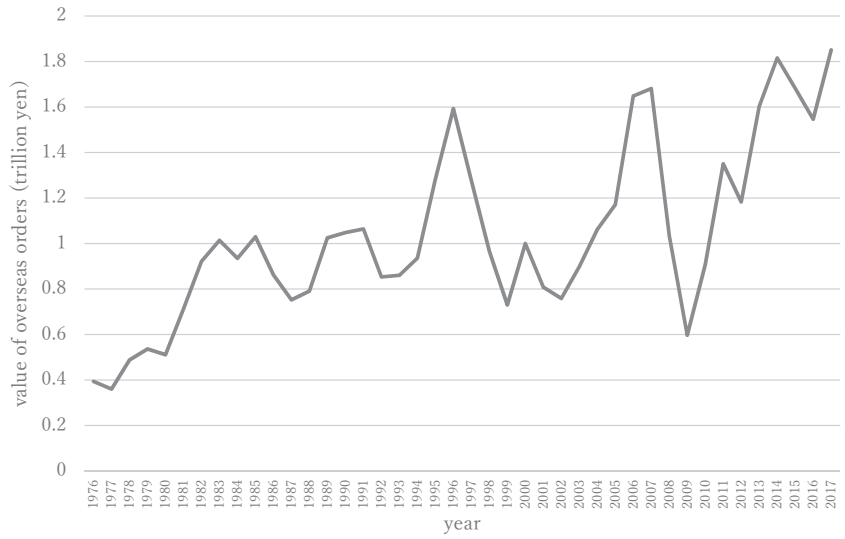

Figure 1: The value of overseas orders on 50 member companies of the Overseas Construction Association of Japan, Inc (OCAIJ). Data source: OCAIJ.

Table 1: Parent companies and subsidiaries for sale in the empirical analysis

Parent company	Subsidiary for divestiture	Location	Year
Sumitomo Construction Co., Ltd	Emerald Resort Pvt., Ltd.	Maldives	2001
Kumagai Gumi Co.,Ltd.	Coeur de Lion Holdings Pty Ltd.	Australia	2003
Kitano Construction Corporation	Kitano Australia Pt Ltd	Australia	2004
NAKANO CORPORATION	PT.NAKANO TOTAL INDONESIA	Indonesia	2005
Fujita Corporation	Shanghai Fujita Tianshan Housing Development Co., Ltd.	China	2006
Fujita Corporation	Fujita Property Guam Inc.	U.S.A.	2006
Fujita Corporation	Guam International Trade Center Inc.	U.S.A.	2006
Sumitomo Densetsu Co., Ltd.	P.T. Cikarang Hijau Indah	Indonesia	2008
SHINNIHON CORPORATION	New Industry International Group (Shenyang) Real Estate Development Co., Ltd.	China	2009

Table 2: Parent companies and acquired companies in the empirical analysis

Parent company	Acquired company	Location	Year
Namirei-Showa Co., Ltd.	Marine Contracting International A/S	Denmark	2002
Sumitomo Forestry Co., Ltd.	Dominance Industries, Inc.	Australian	2002
Hitachi Plant Technologies, Ltd.	Validation Masters, Inc.	U.S.A.	2006
SHINNIHON CORPORATION	New Industry International Group (Shenyang) Real Estate Development Co., Ltd.	China	2006
Sanki Engineering Co., Ltd.	ACURA CONSULTING PTY LTD	Australian	2006
Sanki Engineering Co., Ltd.	Aero-Strip, Inc.	U.S.A.	2006
OBAYASHI CORPORATION	Webcor, Inc.	U.S.A.	2007
KAJIMA CORPORATION	Batson-Cook Company	U.S.A.	2008
Hitachi Plant Technologies, Ltd.	Aqua-Tech Engineering and Supplies Pte. Ltd.	Singapore	2009
Toyo Engineering Corporation	Tri Ocean Engineering Limited	Canada	2010
OBAYASHI CORPORATION	Kenaidan Contracting Ltd.	Canada	2011
Taikisha Ltd.	Geico S.p.A.	Italy	2011
Commuture Corporation	Relative Services Pty Ltd	Australian	2011
Hitachi Plant Technologies, Ltd.	Lightning Eliminators & Consultants ASIA Pte Ltd.	Singapore	2011
Hitachi Plant Technologies, Ltd.	SAIHATI WEIR ENGINEERING SERVICES CO LTD.	Saudi Arabia	2011
Toyo Engineering Corporation	PT Inti Karya Persada Tehnik	Indonesia	2012
Hitachi Plant Technologies, Ltd.	Chengdu Water & Sewerage Company Pvt. Ltd.	China	2012
Kyudenko Corporation.	Asia Projects Engineering Pte Ltd	Singapore	2013
JESCO Holdings, Inc.	Hoa Binh Engineering JSC	Vietnam	2013
CHIYODA Corporation	Xodus Group (Holdings) Ltd.	Germany	2013
Sumitomo Forestry Co., Ltd.	Gehan Homes, Ltd.	U.S.A.	2014
Taikisha Ltd.	ENC Automation LLC	U.S.A.	2014
NTT FACILITIES, INC.	Pro-Matrix Pte Ltd	Singapore	2014
NTT FACILITIES, INC.	Electronic Environments Corporation	U.S.A.	2014
OBAYASHI CORPORATION	Kraemer North America, LLC	U.S.A.	2014
KAJIMA CORPORATION	ICON Co Pty Ltd.	Australian	2015
Sumitomo Forestry Co., Ltd.	Pan Asia Packing Ltd.	Thailand	2015
Sumitomo Forestry Co., Ltd.	DRB Enterprises, Inc.	U.S.A.	2015
MIRAIT Holdings Corporation	Lantrovision(S)Ltd	Singapore	2016
Kinden Corporation	Antelec Ltd.	India	2016
Sumitomo Forestry Co., Ltd.	Wisdom Group	Australian	2016
Daiwa House Industry Company, Limited	Stanley-Martin Communities, LLC	U.S.A.	2016

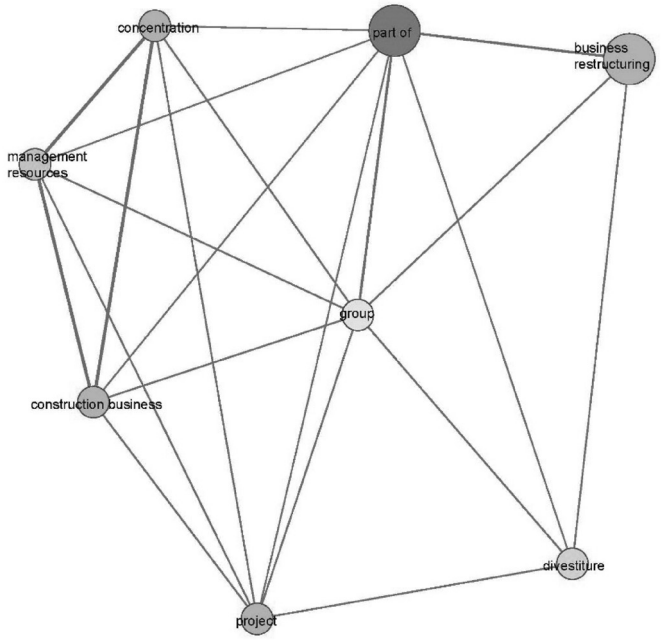

Figure 2: Co-occurrence network for reasons to withdraw from overseas business through M&A

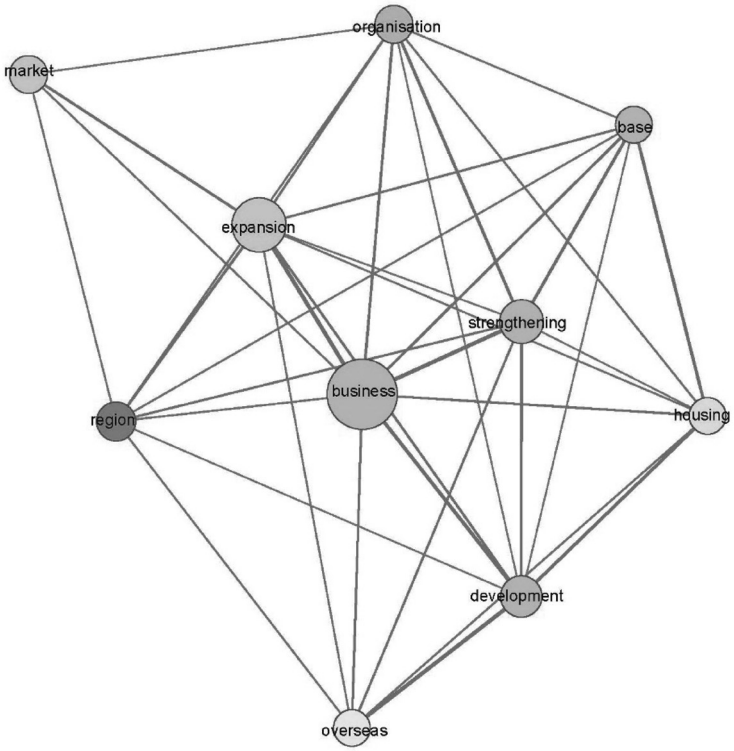

Figure 3: Co-occurrence network for reasons to expansion to overseas business through M&A