

## Board diversity and ownership structure in ASEAN countries: A bibliometric review

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### ABSTRACT

This study reviews the research on board diversity in ASEAN countries. A total of 326 articles published from 1996 to 2018 were obtained from Scopus citation database. A bibliometric analysis was conducted to map the knowledge base and intellectual structure of board diversity in the ASEAN region. Findings indicate that the publication of papers in this area of studies started to grow from early 2000. The active journals that publish articles within the domain of board diversity in ASEAN countries are mostly from university publishers, which have low citation count per document. The highest cited documents were published under Emerald and Elsevier. Influential authors who focused on board diversity come from Malaysia and Indonesia countries. Studies focusing in other ASEAN countries are limited. The hotspot topic was limited to observable attributes of board diversity, namely gender, age, and ethnicity. The literature that measured non-observable attributes of board diversity were lacking in the literature. Moreover, studies on ownership structure mostly focus on family ownership and foreign ownership. Only a few studies were done on government ownership and politically connected board. To the best of the author's knowledge, this study is one of the first bibliometric reviews conducted on board diversity in ASEAN countries. This study outlines the direction for future research with the aim to support the integration of good corporate governance practices in ASEAN.

**Keywords:** ASEAN, bibliometric reviews, board diversity, corporate ownership

### 1.0 INTRODUCTION

In corporate governance, boardroom diversity is a topic that receives substantial consideration from researchers and practitioners (Vance 1978; Abdullah and Ismail 2013; Khaw and Liao 2018). Numerous studies conducted in developed countries, mainly in the United Kingdom (UK) and the United States (US) have confirmed that identity diversity (Erhard et al. 2003), such as gender (Singh et al. 2001; Singh and Vinnicombe 2004; Huse and Solberg 2006), race (Carter et al. 2010), age (Hagendorff and Keasey 2012), and ethnicity (Carter et al. 2010) significantly influence corporate governance quality and firm performance. As stated in the Report of the, the National Association of Corporate Directors (NACD) Blue Ribbon Commission (2012), board diversity (i.e. gender, age, race and nationality) should be considered by firms in the selection of directors (NACD 2012). The main function of the board of directors is to monitor management and protect shareholders' interest (Xie et al. 2003). Thus, a diverse board is needed to create better understanding of the marketplace, produce more effective problem solving, enhance effective corporate leaderships, increase creativity and innovation and promote effective global relationships (Carter et al. 2003).

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However, board diversity is not limited to identity diversity, which is not only a directly observable attribute but also extends to skill-based diversity, which is a non-observable type of diversity, such as technical abilities, education, personality characteristics, functional background, tenure, values, and socioeconomic background (Milliken and Martins 1996). Skill-based diversity can be traced directly through individually measured skills or indirectly through the ownership pattern of the board. Ownership structure is the fraction of equity held by managers and owners of a firm (Jensen and Meckling 1976). Diversified ownership structure, such as institutional ownership, government ownership, family ownership, and political ownership will distinguish differently the board's skills, backgrounds, values and power. Such ownership structure will benefit the firm by providing access to resources and effective networking that are valuable for the firm's operation. In developing countries, ownership structure is more concentrated (Claessens et al. 2000) than firms in the US and the UK. Recently, the different snapshots of ownership pattern in developing countries, such as most ASEAN countries, have received considerable attention by policy makers, investors, and academic scholars. Most previous studies focused on the issues of agency conflict between minority and majority shareholders and competitive advantage of variety form of ownership structure in the board (Lin and Fu 2017; Al-Najjar and Kilincarslan 2016; Setiawan et al. 2016). Agency theory is the most popular theory used by scholars in explaining the agency conflict between minority and majority shareholders (Setiawan et al. 2016). The separation of ownership and control at the board level is the core agency problem faced by firms with highly concentrated ownership (Jensen and Meckling 1976). This conflict of interest will eventually lead to additional monetary and non-monetary costs, usually termed as the agency cost. In contrast, some studies related resource dependence theory as an underpinning theory in explaining the competitive advantage of different types of ownership structures (Desender et al. 2013; Chou 2015; Choi et al. 2012).

Despite studies that review the literature on board diversity, most of them focus on critical analysis and meta-analysis method (Byron and Post 2016; Post and Byron 2015). The amount of research that applies systematic reviews by using bibliometric analysis in this subject is limited and important to complement the findings from previous reviews research. Bibliometric technique will help researchers understand the knowledge base and map the intellectual structure by clustering the research and researchers of various concepts that have emerged in terms of observable and non-observable board diversity field of studies. By using bibliometric analysis, this study aims to evaluate literature on board diversity of firms operating in ASEAN countries. The characteristics of research activities, publication patterns, and research hotspots were performed to gain additional insights into the current research interests and proposed potential directions for future research. The study is organized as follows. Section one introduces the background of the study. Section two explains the data source and research methodologies. Section three presents the results, and Section four concludes the studies and provides recommendation for future research.

## **2.0 METHODOLOGY**

This study relied on quantitative study by using bibliometric analysis to arrive at the results. Bibliometric methods used in this study consist of citation analysis, keyword co-occurrence analysis and co-citation analysis. Citation analysis was applied to classify influential journals, authors, and articles within the domain of board diversity and ownership structure in ASEAN countries. Keyword co-occurrence analysis and co-citation analysis were used to synthesize and map the intellectual structure and knowledge base of observable board diversity and non-observable board diversity, specifically ownership structure in ASEAN countries.

### **2.1 Data sources**

Data used in this study were obtained from the Scopus database owing to its broad coverage in social science, mainly in corporate governance research (Vieira and Gomes 2009). The initial literature search was conducted on July 20, 2019 yielding 326 final data on journal articles. The search engine of “title, abstract, keywords” is used to collect data.

## 2.2 Analysis method

In conducting a systematic research review, this study followed the four steps of PRISMA guideline. which is identification, screening, eligibility, and included steps which was developed by (Moher et al. 2009). In the first step, identification was intended to find the full set of articles associated to board diversity and ownership structure of the corporate governance literature in ASEAN countries. The initial search was based on two retrieval terms, board diversity and ownership structure. Given that the research focus is limited to ASEAN countries, the terms “ASEAN” and “ASEAN countries” (Malaysia, Singapore, Indonesia, Thailand, Philippines, Vietnam, Laos, Brunei, Myanmar, and Cambodia) were added individually. However, the research field in Laos, Cambodia, Myanmar, and Brunei were excluded in this study due to weak of corporate governance practices and nonexistent capital market in some countries.

In the screening process, results were refined to eliminate unrelated studies. These included year, document type, subject area, and source type. This study covered the time range from 1996 to December 31, 2018. All documents published before 1996 are excluded because of the weak coverage of Scopus in economics and social science studies (Harzing and Alakangas 2016). Moreover, articles in 2019 are excluded because they are in the ongoing year of publication. This study only used article type and the source type was limited to journals. The reasons were to control a consistent degree of quality literature through peer-reviewed journal articles and to provide a comprehensive and systematic coverage of literature in the subject interest. To control the area of study, the subject areas were based on “accounting, business and management,” “finance, economics and econometrics,” “social sciences,” and “multidisciplinary.” After excluding 272 articles on the basis of these steps, 330 articles were remaining in the author’s database. We then read the title and abstract of all articles selected in this study to guarantee that the sample was completed and the evidence was from ASEAN countries. In this process, the final database included in this study was 326 peer-reviewed journal articles of board diversity and ownership structure in ASEAN countries since 1996 to 2018. Table 1 presents the breakdown of initial search for board diversity and ownership structure before and after refinement.

**Table 1.** Initial search results in the area of board diversity and ownership structure

Search Keywords	Search Results: Number of papers	
	Before refinement	After refinement
board diversity AND Malaysia	51	29
board diversity AND Indonesia	14	7
board diversity AND Thailand	11	4
board diversity AND Singapore	20	4
board diversity AND Vietnam	10	4
board diversity AND Philippines	8	0
board diversity AND ASEAN	3	1
<b>Total articles on board diversity</b>	<b>117</b>	<b>49</b>
ownership structure AND Malaysia	187	111
ownership structure AND Singapore	59	28
ownership structure AND Indonesia	102	59
ownership structure AND Thailand	56	34
ownership structure AND Philippines	22	11
ownership structure AND Vietnam	49	27
ownership structure AND ASEAN	10	7
<b>Total articles of ownership structure</b>	<b>485</b>	<b>277</b>

Total samples	602	326
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On the basis of the final sample, documents that include title, publication year, author’s names, affiliations, keywords, abstract, document types, citation data, pages and names of journals publishing the articles were retrieved. The data were downloaded into CSV Excel format and analyzed. The bibliometric analysis was done using VOSviewer software to view the intellectual knowledge base of these areas of studies.

### 3. RESULTS

The results of descriptive analysis and Bibliometric analysis are explained in the next subsections.

#### 3.1 Publication trend in the area of board diversity and ownership structure in ASEAN countries

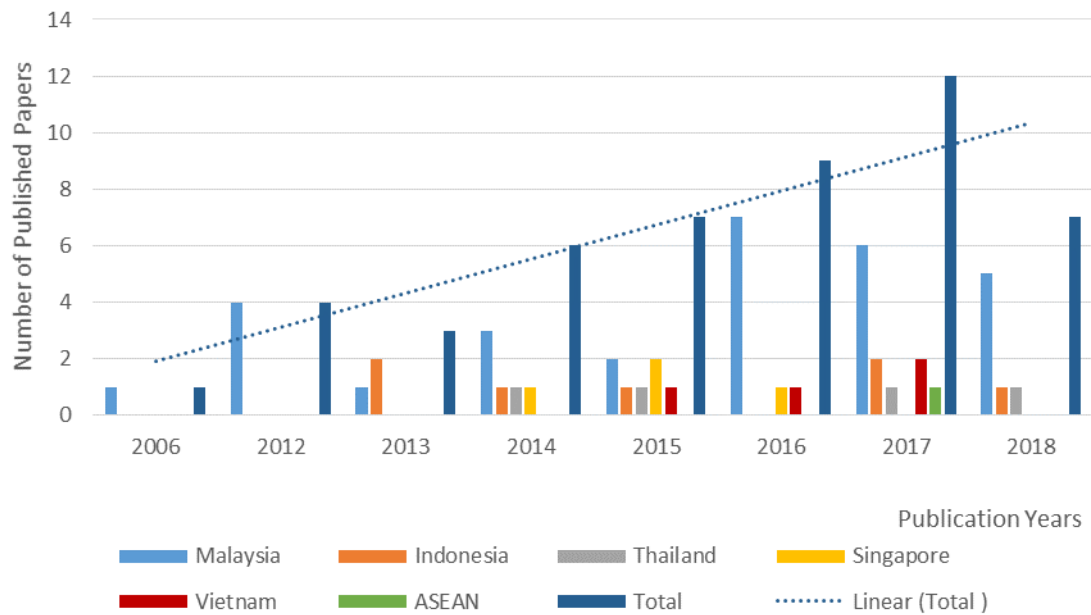
Our first analysis concern is the trend of publication in the literature of board diversity and ownership structure in ASEAN countries. Table 2 shows the trend in quantity of articles published in the area of board diversity and ownership structure in ASEAN countries. The trend is ranked according to the top 10 publishing journals per year. Given that the reform of corporate governance in most ASEAN countries were introduced after the Asian financial crisis in 1997–1998 (Cabalu 2005), the geometric growth of publication in the topics of board diversity and ownership structure begins from early 2000 and continues to increase yearly to date. The final search shows that 211 journals have contributed to the publication of 326 articles in both fields of studies. Table 2 shows that 10 journals have published 113 of these identified articles, representing 34 percent of all papers published.

**Table 2.** Top 10 journals contributing to the area of board diversity and ownership structure per year (n=326 articles)

Source title	Publication Year																		Total	
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017		2018
Corporate Ownership and Control						1			2	1	1	7	2	2	4	3	3			26
Asian Academy of Management Journal of Accounting and Finance							1			1			4	2	1	2	1	2	4	18
Jurnal Pengurusan										2			1	5	1			1	1	11
DLSU Business and Economics Review																1			7	8
International Journal of Applied Business and Economic Research																2	1	4		7
Pacific Basin Finance Journal		2										2				1	3		2	10
Asian Journal of Business and Accounting													2		3		1			6
Corporate Governance							2	3					1	1				1		8
Habitat International																	6			6
International Review of Financial Analysis	2					1									1	2				6
Gender In Management Organizations And Markets In Emerging Economies																	1	1		2
Tourism Management																2				2
Data In Brief																			2	2
Asian Review Of Accounting																	1			1

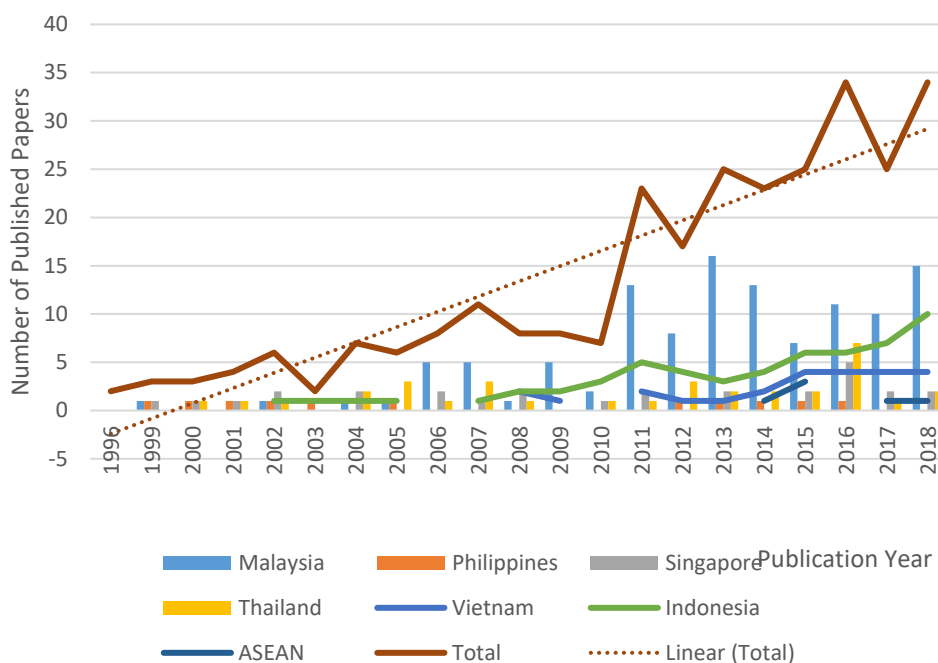
Source title	Publication Year																			
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total
Total	2	2	0	0	0	1	4	3	2	4	1	9	10	10	10	13	17	9	16	113

The graph presented in Figure 1 reveals that the number of published paper in the area of board diversity is increasing year by year. However, a slight drop was observed in 2018, which offer for further analysis. Most published papers provide evidence from Malaysian and Indonesian diversified boards. Evidence from Singapore was limited until 2016. Moreover, evidence from Thailand and Vietnam continue to increase recently. However, cross-country evidence within ASEAN is lacking and no study has been conducted in the area of board diversity in the Philippines. These research gaps can be explored for future research.



**Figure 1.** Publication Trend in the Area of Board Diversity in ASEAN countries (49 articles)

Figure 2 shows the trend of published documents on ownership structure increases year by year. Among the 277 papers published in the area of ownership structure, most focused on board structure environment in Malaysia. followed by Indonesia, Thailand, Singapore, and Vietnam. Only a few studies were done in the scope of ASEAN countries as a whole and in the Philippines. In addition, through the agenda of ASEAN Economic Community (AEC 2020), the ASEAN Development Bank (ADB) in partnership with the ASEAN Capital Markets Forum have jointly developed the ASEAN Corporate Governance Scorecard with the aim to integrate corporate governance standards within ASEAN countries (Wan Sallha et al. 2018; Asian Development Bank 2016). Thus, practitioners and researchers are open to empirically analyze the ownership structure of ASEAN countries as a whole to promote good ASEAN corporate governance practices.



**Figure 2.** Publication Trend in the Area of Ownership Structure in ASEAN countries (277 articles)

### 3.2 Journals within the domain of board diversity and ownership structure in ASEAN countries

The next objective is to illuminate the journal venues of board diversity and ownership structure in ASEAN countries. Data presented in Table 3 show that most articles in this field were published in the journal “Corporate Ownership and Control.” However, the coverage of this journal was discounted by Scopus since 2017. According to the publisher trend, the majority of publishers were university publishers with a low citation count per document (less than 1 point). The highest CiteScore was published under Emerald (Corporate Governance) and Elsevier (Pacific Basin Finance Journal, Habitat International and International Review of Financial Analysis), but received lower rank by volume of articles in these field of studies. Thus, authors who intend to search for a suitable journal for publishing board diversity and ownership structure in ASEAN countries should be aware about this criterion to increase their citation count per document.

**Table 3.** Top 10 most active journals that publish articles on ownership structure in ASEAN countries: Ranked by volume of articles from 1996–2018 (n=326 articles)

Rank	Journal	Publisher	Coverage	Documents	Scopus Citations	CiteScore
1	Corporate Ownership and Control	Virtus Interpress	2003 to 2016	540	61	0.11
2	Asian Academy of Management Journal of Accounting and Finance	Asian Academy of Management and Universiti Sains Malaysia	2006, from 2009 to 2018	50	23	0.46
3	Jurnal Pengurusan	Universiti Kebangsaan Malaysia	from 2006 to 2018	133	72	0.54
4	DLSU Business and Economics Review	De La Salle University	from 2008 to present	70	26	0.37
5	Pacific Basin Finance Journal	Elsevier	1993 to present	219	485	2.21

Rank	Journal	Publisher	Coverage	Documents	Scopus Citations	CiteScore
6	International Journal of Applied Business and Economic Research	Serials Publications	2008 to 2017	541	36	0.07
7	Corporate Governance	Emerald	2001 to present	145	328	2.26
8	Asian Journal of Business and Accounting	Faculty of Business and Accountancy, University of Malaya	2008 to 2018	47	26	0.55
9	Habitat International	Elsevier	1976 to present	532	2,305	4.33
10	International Review of Financial Analysis	Elsevier	1992 to present	365	823	2.25

We further analyze the top 10 most cited articles on board diversity and ownership structure within our database. The results in Table 4 complement the above argument that 9 out of 10 most cited articles in this area of studies were published in the journals from Elsevier and Emerald. All journals were active until present. The highest rank was Journal of Financial Economics, which also received the highest Scopus citation score of 7.34 point.

**Table 4.** Top 10 most active journals that publish articles on board diversity and ownership structure in ASEAN countries:

Ranked by total citation (n=326 articles)						
Rank	Journal	Publisher	Coverage	Documents	Scopus Citations	CiteScore
1	Journal of Financial Economics	Elsevier	1974 to present	376	2,692	7.34
2	International Journal of Accounting	Elsevier	1996 to 2018	76	109	1.43
3	Journal of Corporate Finance	Elsevier	1994 to present	394	1,279	3.25
4	Corporate Governance	Emerald	2001 to present	145	328	2.26
5	Journal of International Accounting, Auditing and Taxation	Elsevier	1992 to present	34	74	2.18
6	Managerial Auditing Journal	Emerald	1986 to present	117	191	1.63
7	Pacific Basin Finance Journal	Elsevier	1993 to present	219	485	2.21
8	Journal of Banking and Finance	Elsevier	1977 to present	645	1,989	3.08
9	Journal of Multinational Financial Management	Elsevier	1997 to present	86	146	1.7
10	Third World Quarterly	Taylor & Francis	1979 to 1990, From 1992 to present	424	1,089	2.57

### 3.3 Influential authors and articles

Bibliometric analysis is a method widely used by researches in conducting systematic reviews. It provides a visual map that can easily analyze the intellectual knowledge base by clustering scholars and documents that shape the area of thought in the same discipline. Citation analysis is

used in this study to identify the most cited authors and documents, which outlines the intellectual leadership in this area of study.

Table 5 documents the Top 5 contributing authors ranked by number of published articles for each area of study. Abdullah, S.N. appears to dominate the list in both area of studies. Moreover, Darmadi, S. and Locke, S. dominate board diversity, and Rusmin, R. and Utama, C.A. dominate ownership structure. Utama, C.A. co-authored with Utama, S. in several papers. All researchers have a background in business, management, and Accounting. In terms of nationality, majority of researchers were from Malaysia and Indonesia, except for Locke, S. who is from New Zealand. The results indicate that researchers from Malaysia and Indonesia dominate the study of board diversity and ownership structure in ASEAN countries. This reason may explain why more papers are published in the area of board diversity and ownership structure in Malaysian and Indonesian corporate firms. Thus, sponsorship funds need to be offered to researchers to motivate them to explore these disciplines in other ASEAN countries.

**Table 5.** Top 10 contributing authors and the number of published articles in the area of ownership structure

Rank	Authors	Number of Published Articles	Countries	Subject Area
<b>Area of study: Board Diversity</b>				
1	Abdullah, S.N.	3	Malaysia	Accounting, Business and Management, Finance, Economics and Econometrics
2	Darmadi, S.	3	Indonesia	Accounting, Business and Management, Finance, Economics and Econometrics, Art and Humanities
3	Locke, S.	3	New Zealand	Accounting, Business and Management, Finance, Economics and Econometrics, Social Sciences, Computer science, mathematics, Art and Humanities
4	Ahmad-Zaluki, N.A.	2	Malaysia	Accounting, Business and Management, Finance, Economics and Econometrics, Social Sciences, Art and Humanities, Engineering, Decision Sciences
5	Mustapha, M.Z.	2	Malaysia	Accounting, Business and Management, Finance, Economics and Econometrics, Social Sciences, Art and Humanities, Decision Sciences
<b>Area of Study: Ownership Structure</b>				
1	Rusmin, R.	5	Indonesia	Accounting, Business and Management, Finance, Economics and Econometrics and Social Sciences
2	Utama, C.A.	5	Indonesia	Accounting, Business and Management, Finance, Economics and Econometrics
3	Abdullah, S.N.	5	Malaysia	Accounting, Business and Management, Finance, Economics and Econometrics
4	Utama, S.	4	Indonesia	Accounting, Business and Management, Finance, Economics and Econometrics and Social Sciences
5	Puah, C.H.	4	Malaysia	Accounting, Business and Management, Finance, Economics and Econometrics, Social Sciences, Engineering, Computer science, energy, mathematics, environmental science, Art and Humanities

We then focus on citation analysis to obtain the most notable document in these fields of studies. Content analysis was also used to further analyze each document of the top 10 contributing authors. Results in Table 6 reveal that gender diversity has received greater attention by researchers in ASEAN studies. As stated by (Low et al. 2015), the presence of women directors



positively influence firm performance. However, in countries with higher female economic participation and empowerment, the positive effects of gender diversity appear to be diminished. This finding suggests that mandating gender quotas can reduce firm performance in countries with strong cultural resistance. (Rashid et al. 2012) and (Abdullah and Ismail 2013) have studied age diversity of the board. Their finding provides mixed results. Lastly, the identity diversity that received considerable interest by researchers was ethnic diversity. Most studies revealed a positive relationship with firm performance. The top 10 cited articles show that observable attributes of board diversity (identity diversity) have received greater interest from researchers from ASEAN studies. This finding provides new insights for future research on non-observable attributes of board diversity (skill-based diversity) in the ASEAN region.

**Table 6.** Top 10 contributing authors in the area of board diversity, ranked by number of citation (n=49 articles)

Rank	Author (Year)	Frequency Cited	Article Titles
1	(Low et al. 2015)	41	<i>Board gender diversity and firm performance: Empirical evidence from Hong Kong, South Korea, Malaysia and Singapore</i>
2	(Rashid et al. 2012)	33	<i>IC disclosures in IPO prospectuses: Evidence from Malaysia</i>
3	(Nguyen et al. 2015)	31	<i>Does boardroom gender diversity matter? Evidence from a transitional economy</i>
4	(Abdullah 2014)	24	<i>The causes of gender diversity in Malaysian large firms</i>
5	(Darmadi 2013)	21	<i>Do women in top management affect firm performance? Evidence from Indonesia</i>
6	(Abdullah and Ismail 2013)	20	<i>Gender, ethnic and age diversity of the boards of large Malaysian firms and performance</i>
7	(Ooi et al. 2015)	19	<i>Diversity in human and social capital: Empirical evidence from Asian tourism firms in corporate board composition</i>
8	(Ahmad et al. 2006)	16	<i>The Malaysian market for audit services: Ethnicity, multinational companies and auditor choice</i>
9	(Gul et al. 2016)	5	<i>Ethnicity, politics and firm performance: Evidence from Malaysia</i>
10	(Hassan and Marimuthu 2016)	5	<i>Corporate governance, board diversity, and firm value: Examining large companies using panel data approach.</i>

By using a similar procedure, Table 7 outlines the top 10 contributing authors, ranked by total documents cited in the area of ownership structure. Although the study of ownership structure in Singapore has a low number of publications, the rating of total citation was high. Mitton (2002), (Chau and Gray 2002), and (Mak and Li 2001) have received the highest number of citation. However, Singapore is a developed country that has a different economic structure compared with other developing ASEAN countries. As stated by Mitton (2002), companies that offered a favorable ownership structure with higher outside ownership concentration (e.g., most firms from developed countries) appear to have provided greater protection to their minority shareholders during the East Asian financial crisis. He suggested that weak legal protection in such countries may influence individual firms to use their power to preclude expropriation of minority shareholders. For example, (Bertrand et al. 2008) confirmed that pyramidal ownership structure of family firms have negatively influenced firm performance in Thailand. The most cited articles that have received considerable interest were done by (Ghazali 2010), (Mohd Ghazali and Weetman 2006), (Yatim et al. 2006), (Wiwattanakantang 2001), (Siregar and Utama 2008), and (Unite and Sullivan 2003). Their studies applied director ownership, foreign ownership, government ownership, and ethnicity ownership (Bumiputera-controlled firms) as proxies for ownership structure.

**Table 7.** Top 10 contributing authors in the area of ownership structure, ranked by number of citation (n=277 articles)

Rank	Authors (Year)	Frequency Cited	Article Titles
1	(Mitton 2002)	604	<i>A cross-firm analysis of the impact of corporate governance on the East Asian financial crisis</i>
2	(Chau and Gray 2002)	262	<i>Ownership structure and corporate voluntary disclosure in Hong Kong and Singapore</i>
3	(Mak and Li 2001)	185	<i>Determinants of corporate ownership and board structure: Evidence from Singapore</i>
4	(Bertrand et al. 2008)	166	<i>Mixing family with business: A study of Thai business groups and the families behind them.</i>
5	(Ghazali 2010)	160	<i>Ownership structure, corporate governance and corporate performance in Malaysia</i>
6	(Mohd Ghazali and Weetman 2006)	153	<i>Perpetuating traditional influences: Voluntary disclosure in Malaysia following the economic crisis</i>
7	(Yatim et al. 2006)	106	<i>Governance structures, ethnicity, and audit fees of Malaysian listed firms</i>
8	(Wiwattanakantang 2001)	105	<i>Controlling shareholders and corporate value: Evidence from Thailand</i>
9	(Siregar and Utama 2008)	97	<i>Type of earnings management and the effect of ownership structure, firm size, and corporate-governance practices: Evidence from Indonesia.</i>
10	(Unite and Sullivan 2003)	82	<i>The effect of foreign entry and ownership structure on the Philippine domestic banking market</i>

### 3.4 Co-citation analysis

Next, we used VOSViews software to visualize the graphical investigation and network analysis. Co-citation analysis was applied to gain in-depth insights into the breadth of scholarly impact and the intellectual structure of literature. The results in Table 8 show that three out of 49 articles on board structures in ASEAN have been co-cited in others papers within this sample. All authors have a major background in Business, Management and Accounting, Economics, Econometrics and Finance. All authors have h-index more than 5.

**Table 8.** Co-citation in the area of board diversity in ASEAN countries

Co-authorship Author	Frequently				Total Scopus		
	Documents	Cited	Countries	<i>h</i> -index	Document	Citation	Subject Area
Abdullah, S.N.	3	53	Malaysia	9	17	388	Accounting, Business and Management, Finance, Economics and Econometrics
Darmadi, S.	3	47	Indonesia	7	8	100	Accounting, Business and Management, Finance, Economics and Econometrics,

Co-authorship Author	Frequently				Total Scopus		Subject Area
	Documents	Cited	Countries	<i>h</i> -index	Document	Citation	
Locke, S.	3	68	New Zealand	10	52	337	Art and Humanities Accounting, Business and Management, Finance, Economics and Econometrics, Social Sciences, Computer science, mathematics, Art and Humanities

Table 9 lists the co-citation of ownership structure studied in ASEAN countries. The results revealed that among the 277 articles in the database, only four articles have been co-cited by other papers within this sample. All four authors have *h*-index more than 4, and they were from Malaysia, Indonesia and Australia. These authors are experts in Business, Management and Accounting, Economics, Econometrics and Finance and Social Sciences, except for Tower G. who also focuses on energy and mathematics. The most cited article was written by Abdullah S.N. with the title "Board structure and ownership in Malaysia: The case of distressed listed companies" with a total citation of 57 and was published in 2006 (Abdullah 2006). His study revealed that non-executive directors' ownership and outside blockholder ownership increases their monitor management effectively to ensure their wealth in the firms is intact. He applied agency theory in explaining all variables but also suggested to further research on ownership structure from the perspectives of resource dependency theory and stewardship theory. Similarly, Utama C.A. has applied blockholder ownership in his research but divided blockholder ownership into three categories of high, medium, and low. His study revealed that companies with high blockholder ownership have a higher level of company disclosure, which provides better corporate governance practices. In the perspective of state-owned enterprise ownership (SOE), Rusmin R. and Tower G., revealed that SOEs exhibited improved firm financial performance (Astami et al. 2010). The four studies done by these four co-authors all focus on institutional ownership. Studies that focus on individual ownership, such as family ownership and political ownership, in ASEAN countries remain unclear.

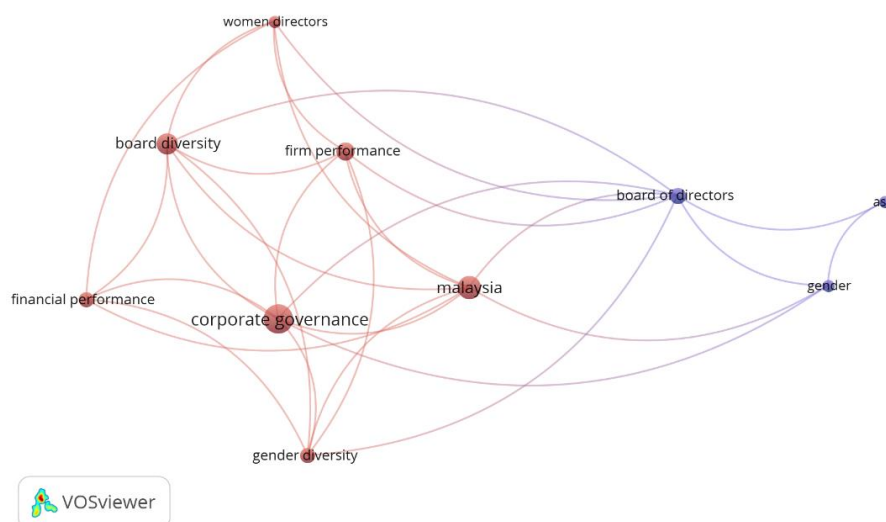
Table 9: Co-citation in the area of ownership structure in ASEAN countries

Co-authorship Author	Frequently				Total Scopus		Subject Area
	Documents	Cited	Countries	<i>h</i> -index	Document	Citation	
Abdullah s.n.	5	116	Malaysia	9	17	388	Accounting, Business and Management, Finance, Economics and Econometrics
Rusmin r.	5	10	Indonesia	7	20	110	Accounting, Business and Management, Finance, Economics and Econometrics and Social Sciences

Co-authorship		Frequently			Total Scopus		Subject Area
Author	Documents	Cited	Countries	<i>h</i> -index	Document	Citation	
Rower g.	6	37	Australia	13	50	498	Accounting, Business and Management, Finance, Economics and Econometrics, Social Sciences, Energy and Mathematics
Utama c.a.	5	25	Indonesia	5	12	38	Accounting, Business and Management, Finance, Economics and Econometrics and Social Sciences

### 3.5 Keyword statistics

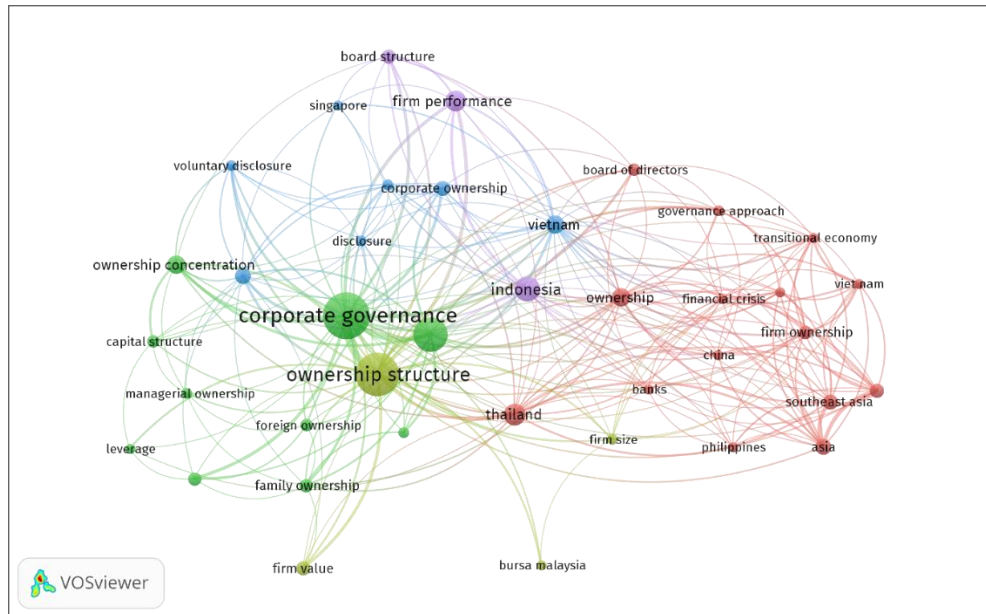
To address the last objectives of this study, a similar analysis was used to identify the most frequently studied topics in the knowledge base of board diversity and ownership structure in ASEAN countries. Figure 3 reveals two major cluster of studies. The first cluster linked gender diversity with firm performance in Malaysia, whereas the second cluster linked gender diversity with board of directors and Asia. We suggest that a broad area of board diversity be further explored by researchers to obtain additional information for achieving good corporate governance in ASEAN countries.



**Figure 3.** Keyword co-occurrence map in the area of board diversity research in ASEAN countries.  
Source: Authors' own construction

Lastly, Figure 4 illustrates the keywords frequently used by researchers in 277 papers. The results illustrate five main clusters of these studies. The first cluster links ownership structure with Singapore firms and focuses on disclosure quality. The second cluster links ownership

structure with Malaysian firms and the topics of interest focused on ownership concentration, family ownership, foreign ownership, and firm value. The fourth cluster focuses on the linkage between ownership structure in Indonesia with the topics of board structure and firm performance. Lastly, the fifth cluster focuses on ownership structure in the phenomena of financial crises, transition economy, Thailand, Philippines, and Vietnam. In terms of ownership structure, less studies were done on government ownership and politically connected board. These subjects are open for future research.



**Figure 4.** Keyword co-occurrence map in the area of ownership structure research in ASEAN countries.  
Source: Authors' own construction

#### 4. CONCLUSION AND SUGGESTION FOR FUTURE RESEARCH

This study systematically reviewed the relevant literature in the area of board diversity and ownership structure in ASEAN countries. We used knowledge map to visualize the intellectual structure of these fields and provide the direction for future research. The main features of this study included publication trends, journals, influential authors, and research hotspots in the area of board diversity and ownership structure in ASEAN countries.

In this field of research, numerous papers were published in the past decade (Ebenezer et al. 2019; Yusoff et al. 2016; Yusoff et al. 2021). However, in-depth research that reviews board diversity and ownership structure in ASEAN countries by using metrology and network analysis was rare especially on clustering the intellectual work and authors. In our review, we found four main findings. First, the number of papers published in these areas of study has grown exponentially since early 2000. However, in 2018, a slight decrease was noted in total documents published on board diversity. Second, the active journals that publish articles with the domain of board diversity and ownership structure in ASEAN countries were mostly university publishers with a low citation count per document (less than 1 point). The highest cited document in these areas of study was published under Emerald and Elsevier. Third, most influential authors among the reviewed studies research on the scope of Malaysia and Indonesia. Studies done in other ASEAN countries and comparative studies within ASEAN are limited. Fourth, in the hotspot research area, the element of board diversity that was studied by these researchers was limited to observable attributes of board diversity. The literature that directly measured unobservable attributes of board diversity, such as education, technical abilities, functional background, tenure,

personality characteristics, values, and socioeconomic background (Milliken and Martins 1996) were lacking. In addition, literature that indirectly measured non-observable attributes of board diversity by using ownership structure of the board mostly focus on family ownership and foreign ownership. Only a few studies were done on government ownership and politically connected board.

Thus, future research should address the following expects. (1) Through agency theory, resource dependency theory, and stewardship theory, the various aspects of board diversity and ownership structure can be analyzed further. (2) Increased publication in well-established journal publisher is needed to increase the number of citations per document. (3) Research can explore the intellectual discipline of these studies in other ASEAN countries, and comparative studies within ASEAN countries can be conducted to provide new information to legislation and practitioners in promoting the AEC agenda. (4) The function of board diversity on corporate governance boardroom can be further strengthened by empirically analyzing non-observable attributes of board diversity in ASEAN, which will provide a clear picture of the impact of diversified board in ASEAN countries. Lastly, (5) the effectiveness of government ownership and politically ownership in corporate board need to be further explored because political influence is increasing in most corporate boards ASEAN countries (Wong and Hooy 2018; Mohamad-Yusof et al. 2018; Gul et al. 2016). On the basis of these suggestions, in-depth research is needed to provide better understanding on the effectiveness of diversified board and ownership concentration in ASEAN countries.

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