



# Scientific Publication Analysis: Financial Reporting Quality Insight

Ag Kaifah Riyard bin Kiflee, Mohd Noor Azli bin Ali Khan, Mathew Kevin Bosi

**Abstract:** After most shocking accounting scandals happen to Enron and WorldCom, most of the countries around the globe started to analyse their existing financial standards realising the importance to have sturdy corporate governance in order to produce high quality financial report. To further understand the nature of the research topic, a broad of research association is necessary. This study focus on conducting bibliometric analysis, with the objective to determine the research trend especially in FRQ area based on total publications, co-authorship among countries and authors, and co-occurrence of authors keywords. Bibliometric analysis is a method of analysing database publication trend based on specific area such as FRQ, risk and economics. By using Scopus database, total of 396 articles is extracted between 1993 to 2018. The result suggested that, the interest on FRQ study start to bloom from 2008 and experience a steady increment until 2018. About 50 percent of the total global publication of FRQ research area was published by researchers from USA and China, leading the other countries like Indonesia, Korea and Malaysia. It is also documented that top research institute who actively publishes on FRQ research also coming from USA. The recent sub-theme of FRQ arguably focusing other area such earnings management and discretionary accruals. This study arguably important to professional bodies in their attempt to convince the directors the benefit associated by enhancing the quality of FRQ.

**Index terms:** FRQ, Bibliometric, Scopus, VOSviewer

## I. INTRODUCTION

As a result of extreme competition of corporate globalisation, industry and investment has resulted the business operation in need of more pertinent yet timely investment in order to keep their operation running [8-26]. To realise this, it is important for the company to produce high quality financial report which allow the

prospect and current investors, creditors and other users to correctly assess the performance of the company and make an inform decision in regards of loans and investment [15-25]. It also argued that, high quality information also important to assess the company prior performance, prospecting future revenue and reviewing the management operation decisions [1]. This kind of information arguably worth to the shareholders, the board of directors, creditors and [16]. It also mentioned that, disclosure high quality information could lessen the various conflict causes by poor disclosure which at the same time improves the quality of financial report and enhances the control [7-13].

[10] through their dynamic adverse model argued that company with higher quality of financial report have higher chances to raise more capital as compared to company with poor financial report quality. This bound to happen when higher quality financial report may boost the investment confidence from the stakeholders and improve the transparency issue who causes economic turmoil, adverse selection and moral hazard [24]. It was stated that when the quality of financial report is higher, the amount needed for external financing cost can be reduced and the possibility of mispricing is getting lower [18]. These showed that the adverse selection effect can be improve through higher reporting quality. This is consistent with a study conducted by [5] who investigate the quality of accounting information may enhance the investment efficiency. The study documented that, high quality of accounting report who abides with international accounting standard arguably related to the development of emerging capital market [27].

Despite the argument on the advantage of having a higher quality financial report, it was found that, very little study who focusses on exploring this topic from scientific publications perspective. Most of the publication on this topic rather focus on the research between quality of financial report and investment efficiency [6-18-21] and corporate governance [4-7]. The most closest to scientific publication research was conducted by [8], but this paper rather a review paper on financial quality information across the globe.

It was argued that, to conduct scientific publication analysis, one need to analyse the publication of articles from database available.

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Scopus argued is the largest database for abstract and peer-reviewed literature which covering a variety of topics. Despite the probability for the Scopus and WoS (Web of Science) articles to overlap during the journal indexing, but in practical, they were indexed in different journal [12-1]. Therefore, the decision to employ Scopus as the main database to extract respective articles for bibliometric analysis is arguably fit with the study objective. In addition, Scopus database also arguably much larger which cover a wide variety of topic than WoS and the application of this database may not discuss in the previous study of [8].

## A. Research Objective

The objective of this study is to determine the bibliometric analysis for financial reporting quality (FRQ) publication and address the following objective:

1. To analyse the publication distribution trend on FRQ for the last 15 years (2003-2018)
2. To highlight the most productive journals, authors and countries in FRQ
3. To address the key research in FRQ study such as the language, affiliation, and keyword

This study arguably beneficial for researcher, policy makers and individual who understand the value of FRQ. Moreover, it also argued that, through bibliometric analysis, researcher may discover potential research area for future study.

## II. APPROACH OF THE STUDY

In order to analyse scientific publication for FRQ, this study employed bibliometric analysis. Bibliometric analysis can be defined as a method of analysing the trend in one specific area based on the publications available in the database of academic literature such as WoS, Scopus, Science Direct, Emerald, JStor and Informit. This type of research analysis makes bibliometric analysis different from review paper or systematic literature review as both of this research type tend to discuss on certain topic area, focus on examining the recent development in the trend and determining the potential research area derived from the discussion [9].

### A. Data Extracting and Search Technique

All the articles related to FRQ were extracted by using Scopus database between 26 to 28 September 2019. The search theme applied in this study focusing on the articles who contain "financial\* reporting\* quality\*" both in its abstract and title. Based on the analysis, the oldest publication under FRQ is way back in 1993 and the recent publication was occurred in 2018. To extract the respective articles, the search string used was: ( TITLE-ABS ( "financial\* reporting\* quality\*" ) ) AND DOCTYPE ( ar ) AND PUBYEAR < 2019 AND (LIMIT-TO (SRCTYPE , "J" ) ). To ensure only research articles to be employed for the analysis, this study applied additional phrases in the command string which later resulted in 21 articles being irrelevant to this study. These 21 articles are

irrelevant to this study as these articles contained terms such as review, progress, advance, highlight, revisit, and critical in both title and abstract which is not important for the analysis purpose. After a thorough examination of these articles (read abstracts and full-texts), this study concluded that all of the 21 articles are review articles. All the EID, a scopus unique character identification is collected from those review articles and added in the next command string to ensure the same articles will not appear in the next search results.

It is notable that the best approach to obtain the most accurate data on the authors information is through their identification (ID) where this can be observed from the Scopus field code (AU-ID). It was argued that an author profile is a collection of variety information who placed in one single profile such as the author's name, ID, affiliation, number of publications, total citations and their h-index. All of these information is crucial to conduct a scientific publication analysis.

On the other hand, the information for single-country publication (SCP) was extracted by excluding other country affiliation. It is important to exclude rather than limit the country affiliation as limiting the country will not eliminate the publication affiliation with other country.

The search results of the key research were analysed according to their publications journals, prolific authors and affiliation in order to conduct appropriate bibliometric analysis. While total citations, h-index and CiteScore of publications was employed as a mean of ranking purposes in bibliometric analysis.

Fig.1 present the data collection process and steps in the filtering process. Further details of search string command used in Scopus are available in Table a1 (appendix).

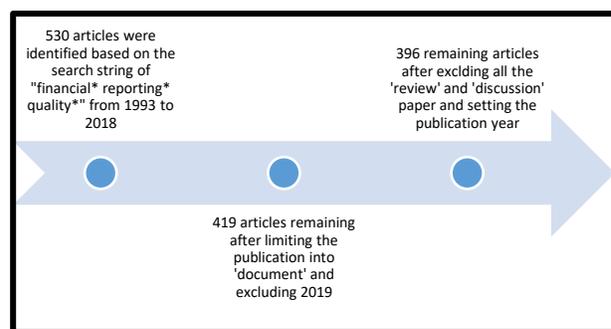


Figure 1

### B. Bibliometric Maps

All the information of co-authorship, citation and author keyword of 396 articles (after filtering process) was exported to VOSviewer (latest version 1.6.7, Centre for Science and Technology Studies, Leiden University, The Netherlands).

VOSviewer is a software use by the researcher to construct and visualising bibliometric maps in order to have better understanding over the topic. It was stated that the map created by VOSviewer is based on the items that aimed to be studied. To further extend the understanding on FRQ subject, this study will focus on examining countries and authors keywords from bibliometric perspective. It was noted that, for any pairs item stated in the bibliometric map, there will be at least a connection or relation established, indicating their interrelationship. It also argued that each relationship is represented by the strength, where each relationship strength is represented through the thickness of the line. Based on the bibliometric map, the thicker the line which connecting between the items, the stronger the relation between the two items.

For the analysis of co-authorship, the relationship between the countries is portrayed through the link who linkage between the countries whereby the strength of the relationship is measured through the number of affiliated publications between the countries. While the total strength is measured through the total number of co-authorship publications associated with other countries. While for co-occurrence analysis, the strength of relationship between the authors keywords is determined through the number of publications where the keyword used simultaneously [9]. To fully utilised the VOSviewer function, the details are available in the manual ([20]).

### C. Co-Authorship Analysis

For co-authorship analysis, total of 14 countries are identified which associated with 396 authors. The associated countries were divided into 5 main continentals which is: (1) Asia, (2) Europe, (3) America, (4) Africa, (5) Oceania.

### D. Co-Occurrence Analysis

While the co-occurrence analysis of authors keywords found that 35 keywords are frequently used by researchers based on 396 articles available. There are no articles being excluded during the process as all the available articles are fulfilling the analysis requirement whereby the final articles are not reviewed, critical or prospect articles. Before further analysis to be conducted by using VOSviewer, all the list keywords were analysed for synonyms and congeneric phrases. This is to ensure that all the keywords available later in VOSviewer is not redundant with each other. For example, audit committee, audit committees, audit committee (AC) is recognised as the audit committee.

During the analysis of co-occurrence in the VOSviewer, the minimum keyword occurrences set to be appeared in the VOSviewer is zero as the researcher intends to analyse all the top keyword employed by the FRQ researcher. To have better understanding over the map generated by VOSviewer, the overlay visualisation was chosen to highlight the average publication year, number of occurrences and keywords strength. It also argued that, one can identify the publication of

articles based on the colour who represent the keyword as the light colour indicated that articles are recently published.

### E. FRQ Research

To further understand the publication trend in FRQ study, the central theme who represents by the keyword of co-occurrences is compared with the sub-theme which is the total publication of FRQ study. For example, if the main search theme is financial reporting quality, all the keywords occurrences related to 'financial reporting quality' such as 'financial report', 'financial reporting' and 'financial reporting quality' is calculated. This to ensure that all the keywords related to the main search theme is counted for analysis. In addition, this study also analysed 15 top countries who actively published in FRQ study.

## III. DISCUSSION OF THE RESULT

### A. Publication Growth and Research Interest Trend

For the last 15 years of FRQ study, a total of 396 articles been published (refer Fig. 2 appendix). The oldest publication was recorded back in 1993, and for the next 6 years onwards which is from 1994 until 1999, there is no publication on FRQ. Based on the Figure 2, it is noted that strong interest in FRQ research started from 2007 to 2008. the graph suggest that the number of relevant articles is grew from 5 to 8 from 2007 to 2008, an increment of 200%. Despite the number of articles drop in several years, the trend does not stagnant for a long period. For example, it was reported the number of FRQ articles drop from 8 to 5 in 2009, however, this trend does not remain stagnant as the publications of FRQ articles is increasing on the following year. Ever since, the number of publications for FRQ articles is fluctuate however experiencing steady increment of at least 10 articles publish per year. Thus, based on the given statistics, it is expected that the number of articles publications will continue to increase. However, it is to noted that some of these articles are not free accessible where the users have to pay some subscription fee in order to get in hand of the articles. Therefore, this study suggested that to enhance the articles total citations, the articles should be listed out as open access in the respective journals. FRQ research area arguably is broad and the analysis on the subject area found that most of the FRQ research were conducted in Business, Management and Accounting. This can be proving through publication number for each of the following subject whereby most of the FRQ articles were publish under Business, Management and Accounting (355), followed up by Economics, Econometrics and Finance (253), Social Science (46), Art and Humanities (15) and Environmental Science (8). From the analysis, it is found that FRQ research is not limit to Business and Management area, but also fall into Art and Humanities and Environmental Science.

### B. Language

In addition, another analysis been conducted is the writing language used in the articles. Based on the analysis of the articles after excluding the EIDs, the result showed that the articles in this area were published in 3 different languages (refer Fig. 3 appendix).

The analysis revealed that most of the articles were written in English with 393 articles (99.24%), followed by Spanish with 3 articles being publish in this language (0.76%) and the last one is Korean with 1 articles published (0.25%). It was reported that when publisher intends to publish and index their articles in the Scopus, it is required for the writer to have an English abstract and title for their articles to fulfill the Scopus requirement.

### C. Top Journal Publication

Of 396 articles was extracted from Scopus, it was found that most of the articles were published in Accounting Review journal. This study however will only focus on analysing 15 top publishers in FRQ research area (refer Tab. 1 appendix). Among the 5 top publishers are Accounting Review, Auditing, Cotemporary Accounting Research, Journal of Accounting and Public Policy and Journal of Business Finance and Accounting. Each publisher publication is 20 (12.57%) (Accounting Review), 16 (10.06%) (Auditing), 16 (10.06%) (Cotemporary Accounting Research), 12 (7.55%) (Journal of Accounting and Public Policy) and 12 (7.55%) (Journal of Business Finance and Accounting) respectively. Although being ranked at 6<sup>th</sup> among the top 15 publishers for FRQ study, the analysis demonstrated that Journal of Accounting Research received among the top citation with total of 952 citations and surprisingly one of the journal article that were published back in 2003 is being cited for more than 825 times.

Based on the latest CiteScore score, only 1 from 15 top journals in FRQ study to have CiteScore more than 6. The highest CiteScore journal belong to Journal of Accounting Research with 6.23 CiteScore and the lowest CiteScore recorded is pertaining to Corporate Ownership and Control with 0.11 score of CiteScore. Despite ranked the first in term of CiteScore score, it was noted that the total citations and number citation for their top articles is quite lower compare to other journals such as Journal of Accounting and Economics and Accounting and Accounting Review. This might be due to the accessibility of the articles itself whereby the authors purposely not listed the article as open access articles which cause the number of citations become lower despite higher scoring for CiteScore score.

It also argued that CiteScore is one of the factors who might affect the authors decision to publish their work in a particular journal [9]. CiteScore in other definition is a scoring metric using to measure the impact of a journal based on the citation from Scopus database which is similar to Elsevier- Scopus for Clarivate Analytics Impact Factor that we can find at WoS. However, based on our opinion, the CiteScore is not only the main factor that should be considered when submitting the

articles. The most important thing is to ensure the work is delivered to right user/readers and later contribute to the extent of knowledge. To do this, we have listed top 15 journals which writers may consider to submit their work.

### D. Top Countries Publications and International Affiliations

Tab. 2 (refer appendix) represent the top 15 most productive countries who actively publish in FRQ around the globe. Based on the scientific publication analysis, it was found that about 40% of FRQ publication were coming from the United States (USA) indicating that USA is the key player in FRQ research area. This is followed by Australia with 36 publications, covering about 7% from the total publications is FRQ area. Among the top 15 countries that were taken into consideration for analysis, it was found that less half of the countries were having more than at least half (50%) for their single country publication (SCP). Among of the countries who having more than 50% in term of their SCP is USA (63.7%), Malaysia (50%), Korea (72.2%), Spain (76.5%), Indonesia (85.7%) and Iran (92.3%). This suggests that these countries have a strong internal publication and not relying on co-publication with other countries to produce FRQ research. On the way around, the least country with SCP is Canada with 7.7% whereby out of 26 publications made by the country itself, only 2 of the articles were self-published by Canada and another 24 articles were published in affiliation with another country. One of the advantages of internal publication is to encourage knowledge exchange among scholar in the country which at the same time it will allow for ranking promotion. For example, Iran, despite being ranked at 2<sup>nd</sup> before last among top 15 top countries who actively publish in FRQ with 13 publications, almost 90% of the country publication is coming from the internal collaboration which is good for the country ranking promotion. However, it was argued that international affiliation is rather beneficial in term of knowledge sharing among scholar globe and also broadening the network. It was stated, there are several factors who determine the variety of international collaboration. For example, high percentage of foreign postgraduate in one institution and university steady research funding may determine the variety of collaboration among the scholars. In addition, flexible and efficient research policy in one country may also determine the number and variety of international collaboration.

### E. Top research institute

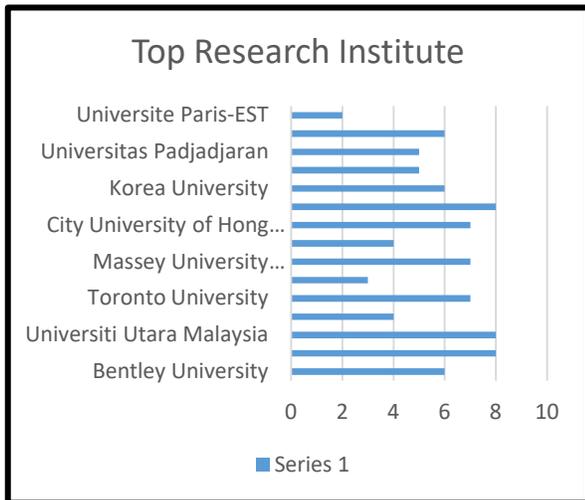


Figure 4

Based on the top research institute publication, it was found that Curtin University of Australia, Universiti Utara Malaysia of Malaysia, Toronto University of Canada, Massey University Auckland of New Zealand, and City University of Hong Kong are the among top research institute who actively publish articles related to FRQ. Most publication is coming from Bentley University (8) and Universiti Utara Malaysia (8) and followed by Toronto University of Canada, Massey University Auckland of New Zealand, and City University of Hong Kong with 7 publications respectively. It also argued that research institute role in publishing articles is important in determining the number of publications for each research area such as their steady funding for the researcher to conduct research.

**F. Co-Authorship**

Fig. 5 (refer appendix) represent the distribution of bibliometric map for countries. The VOSviewer map suggested that, the closer the position of the countries in the map, the stronger their relationship which represents through the thickness of the line. According to the analysis, it was found that Asia is the highest number of countries in the continents who actively published in FRQ research with 20 countries, followed by Europe with 16 countries and America, Africa and Oceania with 2 countries respectively. The co-authorship map suggested that the most affiliated countries were belonging to USA, which linked to 20 countries and associated with 82 co-authorships. It was then followed by Australia with 14 links to other countries and 42 co-authorships. Canada is the third place (12 links, 33 co-authorships), China (10 links, 33 co-authorships), UK (12 links, 16 co-authorships) and lastly Malaysia (9 links, 20 co-authorships). In addition, the study also found that, most of the selected countries were had affiliation less than 10 countries for their international collaboration.

**G. Top Authors**

This study listed out top 15 authors (refer Tab. 3 appendix) who actively publish in FRQ and the result showed that, the

authors are affiliated with 9 countries. USA is the leading with 6 authors affiliated, followed by Canada with 2 authors. While New Zealand, Australia, Iran, Pakistan, Taiwan, Indonesia and Malaysia is affiliated with single author respectively. The analysis also suggested that the earliest articles were produced in 2000 by Carcello Joseph V. from the University of Tennessee System, USA. In addition, the scientific analysis also revealed that more than 75% of the top 15 authors was acting as the first author and the rest is acting as co-authors. It also discovered that most of the authors also act as a single and corresponding author without collaborating with other researcher. Even though there is no specific rule for authors order, in normal practice, the last position basically belongs to supervisors or industry practitioners. The affiliations of the authors suggested the FRQ research stand from broad field such as business, management, accounting and economics field.

Based on the analysis, the top prolific author in FRQ research area was belonging to Habib Ahsan from Massey University, New Zealand with 6 articles in total publications, h-index of 3 and total citations of 64. The list is then followed by Alzoubi Ebrahim Saleem with total publications of 5 and h-index of 25 who affiliated with La Trobe University, Australia. Next prolific authors were belonging to Hope, Ole Kristian who affiliated with Rotman School of Management, Toronto, Canada with total publications of 5 and total citations of 347. It also to note that despite being ranked 6<sup>th</sup> among top 15 prolific authors, the total citation for Carcello Joseph V. is the highest among the other 15 top authors with 400 in total citations. This may be explained as Carcello Joseph V. are among the earliest researcher in FRQ area which makes his articles becoming the main reference for the current researcher to understand the phenomena and later contributed to the highest citation.

**H. Authors Keywords**

The analysis of Scopus database recorded a total of 882 authors keyword, where among of the keywords listed out, 161 keywords were used twice by the authors, 78 keywords were used three times by the authors and 53 keywords were employed for four times by the authors. After renaming some of the word into their closest synonym, the researcher set the threshold of occurrence into 5 which later resulting in 38 identified keywords in VOSviewer map.

**I. Key-Occurrence Terminology**

Based on the FRQ bibliometric map (refer Fig. 6 appendix), it was found that FRQ is the most frequent employed keywords by the FRQ authors with 114 occurrences and 413 links to other keywords by other authors. The study also at the same identified another term who frequently used in FRQ research area such as ‘corporate governance’ (230 occurrences, 61 links), ‘earning management’

(41 occurrences, 163 links) and 'audit committee' (30 occurrences, 124 links). Apart from the keywords mentioned, FRQ also seen to be co-occurred with another theoretical keyword such as 'discretionary accruals', 'earnings quality', 'information asymmetry', 'corporate social responsibility' and 'internal audit function'. The study also notices several attributes or other name that were used to refer to FRQ. Among of the examples of FRQ substrate was 'financial reporting delay' (1), 'financial reporting quality (frq)' (7), and 'financial reporting-quality'. These are kind of the examples of other names that were used by other authors to represent FRQ in their study. The writers may purposely use a different term to differentiate themselves from other writers in the same field by having their own identity. It also argued that, financial reporting quality is such a general notion that not only referring to financial information, but also at the same time referring to the importance of non-financial information that arguably crucial for decisions makings [8].

Previous study also argued that, the higher the quality of the financial report, the more benefit enjoys by the company as a result of higher investment place by the investor (Chang et al. 2009).

### J. Discussion

As one of the topics who getting attention these days, the need for higher quality financial report is more crucial in order to assist the user in making an inform decision. In order to assess the quality of financial report, often the relevance and performance of FRQ itself being assessed by the users.

IASB in their report argued that, the best way to assess the quality of financial report is by determining the ability of the financial report itself to fulfill the objective (market expectation) through the information disclosed in the company financial reports [8]. By strengthening the qualitative aspect of the financial report, it is arguably will enhance the usability of the financial report, which will affect the performance of the company.

The FASB and IASB in their Conceptual Framework for financial report have agreed on several elements that should be present in the financial report to consider one as a high quality financial report. Among the several qualitative elements that should be present in financial report are: relevance, reliability and understandability. Relevance (1 occurrence, 3 links) is closely related to the meaning of practicality and materiality. In other definitions, relevance also portrays the ability for the user to make an inform decision based on the information given. The financial report is said relevant when the information discloses by the company able to affect the users in making their economic decision [8]. In addition, the financial report also considers as relevant when the information discloses able to assist users in evaluating, planning, and confirming the past and current issue of the company.

The information disclosed in the annual report is considered as relevant when it able to assist the decision making by the investor where this is consistent with the conceptual frame

propose by Cheung, Evans and Wright (2010). One of the indicators for relevance in the annual report is the fair value. Employing fair value as a basis of measurement in an entity, indicating a high relevance of information discloses by the company through their financial report (Beest, Braam, and Boelens, 2009). According to (Beest, Braam and Boelens, 2009) an annual report can be considering as high relevance, when it disclosing forward looking information, being transparent about their company prospective business plan, and discussing significant event that may affect the entities.

Another critical factor in order to justify one financial report as high quality is in term of the information reliability. The information in the financial report arguably must be relevant in order to be useful to the user. The information was considered to be reliable, when the information disclose is free from bias and significant mistakes, and could be referred by users [8]. According to Cheung, Evans and Wright (2010), reliability is a measure based on the quality of faithfulness, verifiability and amount of neutral information disclose.

Understandability of information arguably one of the important qualities that should possess with the financial report issued by the company. Understandability of the information can be achieved through effective communication between the company to the market by using a financial report [8]. Therefore, the better the understanding of the information by the users, the higher the quality of the financial report (Cheung, Evans and Wright, 2010). It also argued that, understandability is one of the qualitative attributes that may increase when the information is clearly present.

### K. FRQ research and relation to sub-theme

Based on the number of articles and author keyword occurrences, it was found that there are positive correlations between the main search theme and the sub-theme search. The analysis showed that corporate governance practice is the most popular application with 825 articles available in the Scopus database and 230 occurrences in VOSviewer. Next on the list is an audit committee (1732 articles and 230 occurrences), discretionary accruals (857 articles and 12 occurrences) and earnings quality (788 articles and 20 occurrences).

Past empirical literature has shown that there are many proxies that can be used to measure the quality of the financial report. Previous studies have suggested that quality of financial report may affect by other factors. Governance, accounting profession, economic fluctuation, international effect, taxation, and political power are some of the factors who might affect and control the quality of information in the financial report (Gajevszky, 2015). The analysis result has shown researchers that, there are many factors who may affect the quality of a financial report which indirectly will affect the decision making of the users.

In addition, research interest in other areas also may determine from the link strength between two keywords. For example, earning management itself had link to 163 links (connected to 163 other keywords) such as ‘Islamic banks’, ‘frequency of meeting’, ‘multiple directorship’, ‘corporate social responsibility’, ‘earning quality’, and ‘accounting disclosures’. From the link strength between two keywords, it was found that relationship between earnings management-frequency of meeting is stronger than the relationship between earnings management- accounting disclosure with 2 and 1 link strength, respectively.

The analysis of sub-theme also found that publication in relation to earnings management, audit committee, discretionary accruals, and earning quality mostly came from the United States with China in the second place. However, in general there are another 3 top countries who actively produce articles related to FRQ such as Australia, United Kingdom and Canada. While other countries such as Taiwan, Malaysia and Korea also among the top publisher in FRQ related but only focusing on certain area of interest.



Figure 7



Figure 8

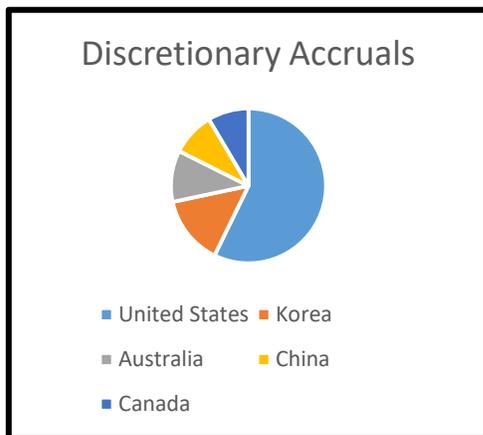


Figure 9



Figure 10

**L. Constraint of the study**

One of the flaws that can be observed from this research is by limiting the search key into “financial\* reporting\* quality\*” for both titles and abstract, the search result obtained may not cover all FRQ research study that available on Scopus. One of the reasons is, researchers might not use similar term in their study, but employed another term such as ‘financial reporting oversight’, ‘financial-reporting quality’, ‘financial reporting quality (frq)’ and ‘financial reporting’s quality’. Moreover, the analysis on co-occurrence only cover all the articles available

in the Scopus which is arguably is not comprehensive as it not covering other database such as Scientific Report, WoS, JStor and Elsevier.

It was recommended for future study to include another database such as Web of Science (WoS) or Elsevier. For examples, when employed WoS as database for research, the database automatically will suggest top articles in the field who knew as ‘hot paper’ which this feature is still missing in Scopus. This ‘hot paper’ basically is a top citations or top downloaded articles in certain field based on WoS system.

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It also expected that by using multiple database when conducting bibliometric analysis, the result generates is rather comprehensive.

### IV. CONCLUSIONS

This study has provided an overview of FRQ scientific research by using 396 articles available on the Scopus database. Based on the analysis, it was found that the publication on FRQ is experiencing an upward trend for the last 15 years and based on the current trend, it was expected the trend will continue to rise. It also suggested that USA and China are among the top countries who actively published in FRQ and also have strong international association. This can be an opportunity for researchers from other countries such as

Indonesia and Iran to have joint publication with researchers from country with fine international collaboration. Further study on this topic is arguably needed to improve the quality of financial report.

it was advising for the company to enhance the quality of their financial report as many benefit will associate such as higher performance and lower investment cost by the company It also suggested that exploring new research field in relation to FRQ is welcoming as there is another factor who might affect FRQ such as public scrutiny and technology information system.

### APPENDIX

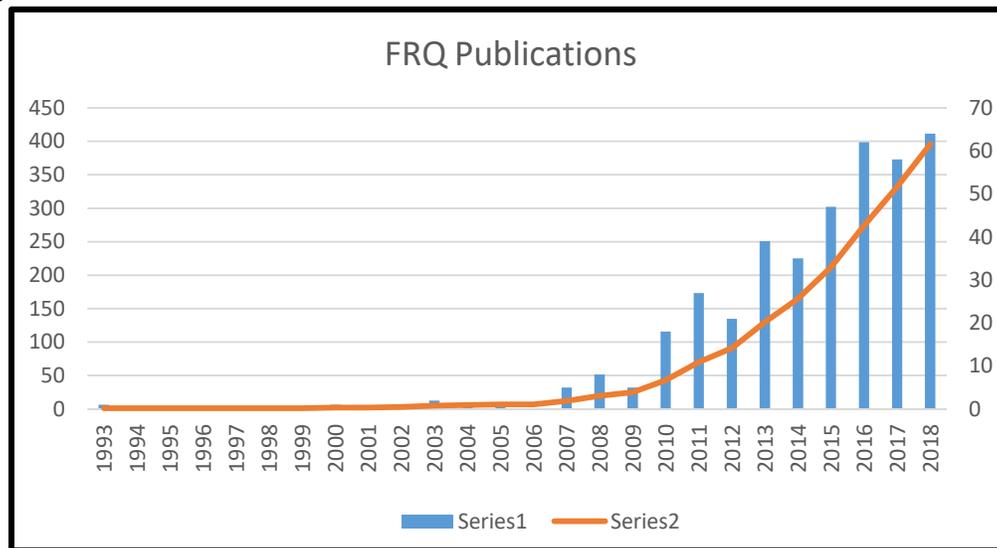


Figure 2

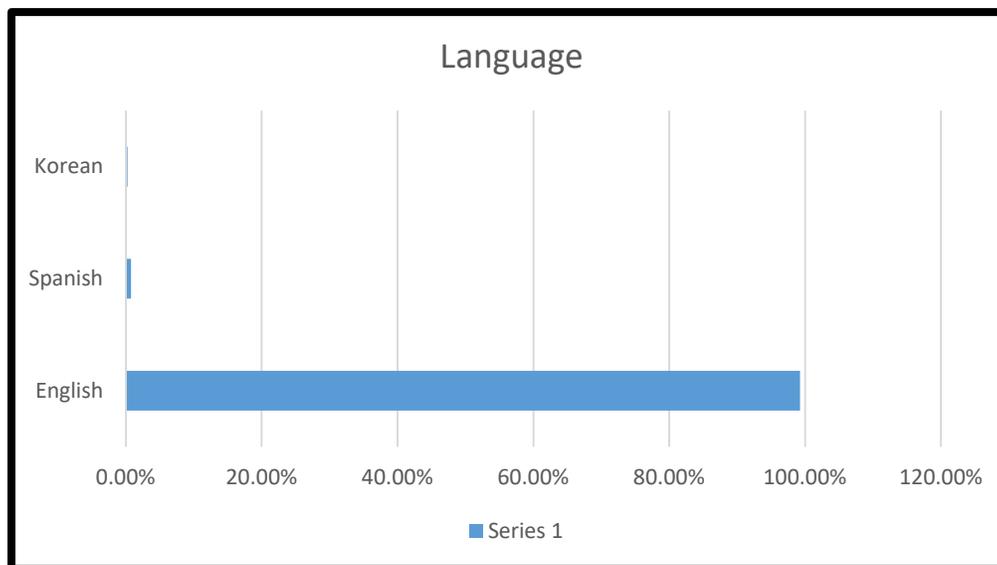


Figure 3

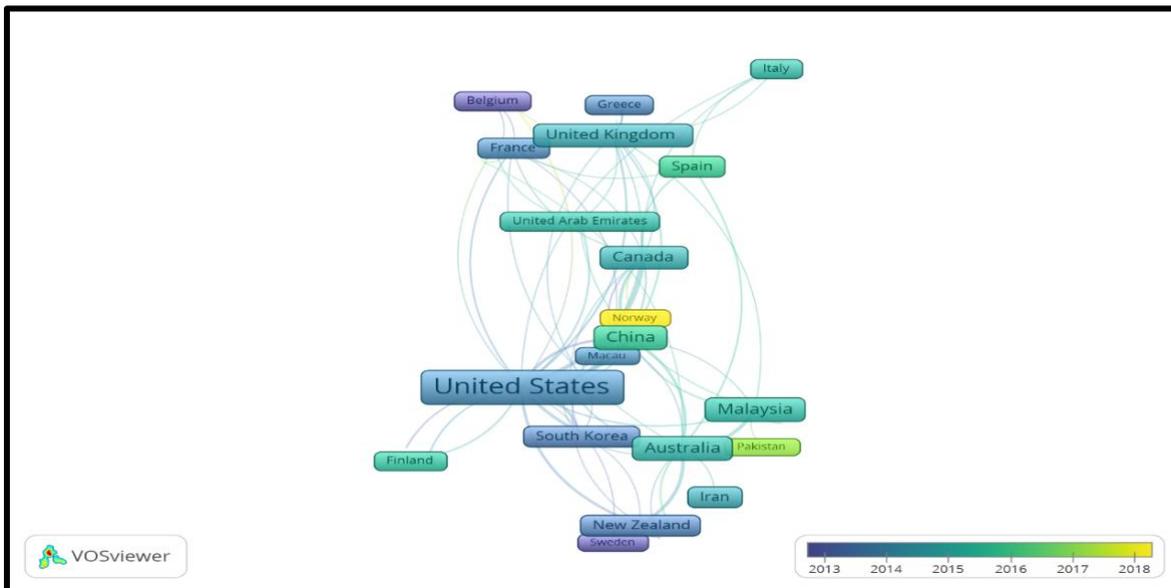


Figure 5

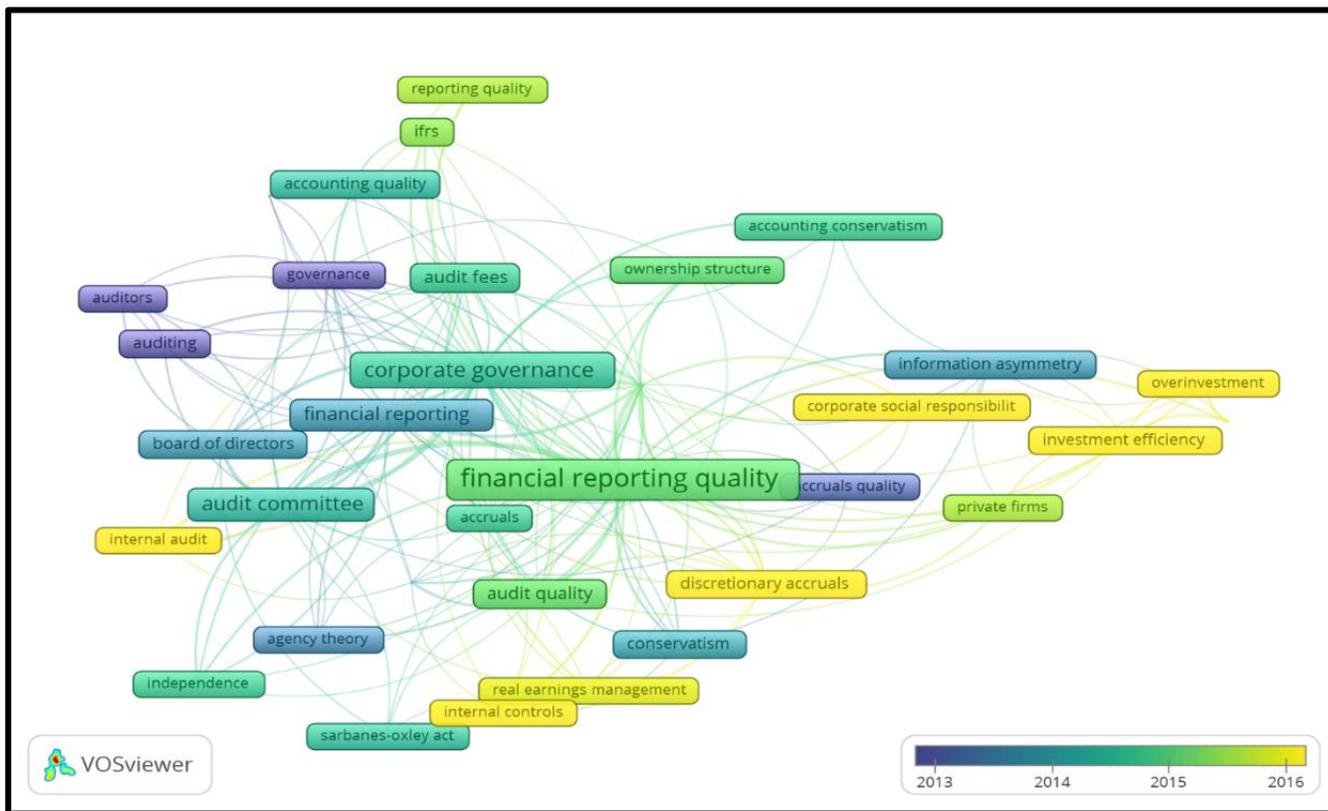


Figure 6

## Scientific Publication Analysis: Financial Reporting Quality Insight

**Table 1**

Rank	Journal	Number of publications	%	Number of citations	Cite score 2018	The most cited article	Times cited	publisher
1.	Accounting Review	20	12.57	852	4.57	Audit committee composition and auditor reporting	319	American Accounting Association
2.	Auditing	16	10.06	128	3.97	Types of non-audit fees and financial reporting quality	45	American Accounting Association
3.	Contemporary Accounting Research	16	10.06	579	3.02	Audit-Firm Tenure and the Quality of Financial Reports	355	Wiley-Blackwell
4.	Journal of Accounting and Public Policy	12	7.55	228	3.41	Do the Big 4 and the Second-tier firms provide audits of similar quality?	99	Elsevier
5.	Journal of Business Finance and Accounting	12	7.55	56	2.26	Exploring the causes of accounting restatements by family firms	12	Wiley-Blackwell
6.	Journal of Accounting and Economics	11	6.9	952	4.78	Incentives versus standards: Properties of accounting income in four East Asian countries	825	Elsevier
7.	Managerial Auditing Journal	11	6.9	99	1.63	Internal audit function, board quality and financial reporting quality: Evidence from Malaysia	26	Emerald
8.	Accounting Horizons	9	5.66	137	2.87	Mandatory audit firm turnover, financial reporting quality, and client bargaining power: The case of arthur andersen	61	American Accounting Association
9.	Journal of Accounting Research	9	5.66	297	6.23	The Impact of Financial Reporting Quality on Debt Contracting: Evidence from Internal Control Weakness Reports	140	Wiley-Blackwell

10.	Journal of Business Ethics	9	5.66	203	4.46	The Relationship Between Corporate Social Responsibility and Earnings Management: An Exploratory Study	68	Springer Nature
11.	Advances in Accounting	7	4.40	38	1.19	Audit committee financial expertise and properties of analyst earnings forecasts	10	Elsevier
12.	Corporate Ownership and Control	7	4.40	4	0.11	Ineffective corporate governance: Busyness of internal board monitoring committees	2	Virtus Interpress
13.	European Accounting Review	7	4.40	165	2.94	Earnings management and audit quality in Europe: Evidence from the private client segment market	116	Taylor & Francis
14.	Journal of Applied Business Research	7	4.40	10	0.42	Mandatory audit firm rotation and audit quality	4	Western Academic Publishers
15.	Accounting and Business Research	6	3.77	53	2.31	The impact of voluntary audit on credit ratings: Evidence from UK private firms	35	Taylor & Francis

## Scientific Publication Analysis: Financial Reporting Quality Insight

**Table 2**

Rank	Country	TPc	%	Tpi	Institutions	Single country publication (SCP)	SCP Percentage
1.	United States	171	37.1	6	Bentley university	109	109/171*100= 63.7
2.	Australia	36	7.8	8	Curtin university	8	22.2
3.	Malaysia	32	6.9	8	Universiti Utara Malaysia	16	50
4.	China	31	6.7	4	SouthWest University of Finance and Economics	12	38.7
5.	Canada	26	5.6	7	Toronto University	2	7.7
6.	United Kingdom	21	4.6	4	The University of Warwick	7	33.3
7.	Hong Kong	20	4.3	7	City University of Hong Kong	6	30
8.	Singapore	18	3.9	8	Singapore Management University	3	16.7
9.	South Korea	18	3.9	6	Korea University	13	72.2
10.	Taiwan	18	3.9	5	National Taiwan University	6	33.3
11.	Spain	17	3.7	3	Universidad Jaume I	13	76.5
12.	New Zealand	16	3.5	7	Massey University Auckland	5	31.3
13.	Indonesia	14	3	5	Universitas Padjadjaran	12	85.7
14.	Iran	13	2.8	6	Ferdowsi University of Masshad	12	92.3
15.	France	10	2.2	2	Universite Paris-Est	2	20

**Table 3**

Rank	authors	Rank authors	Scopus Author ID	Years of 1 <sup>st</sup> publication	Total publication	H-index	Total citations	Current affiliation	Country
1.	Habib, Ahsan	1	8524353500	2012	6	3	64	Massey University, Auckland	New Zealand
2.	Alzoubi, Ebraheem Saleem Salem	1	56196263100	2014	5	25	0	La Trobe University, Melbourne	Australia
3.	Hope, Ole Kristian	1	6506561141	2008	5	3	347	Rotman School of Management, Toronto	Canada
4.	Krishnan, Gopal V.	1	26660408200	2011	5	5	111	Bentley University, Waltham	United States

Rank	authors	Rank authors	Scopus Author ID	Years of 1 <sup>st</sup> publication	Total publication	H-index	Total citations	Current affiliation	Country
5.	Salehi, Mahdi	1	57189446351	2016	5	2	13	Ferdowsi University of Mashhad	Iran
6.	Carcello, Joseph V.	1	6603661422	2000	4	3	400	The University of Tennessee System	United states
7.	Mitra, Santanu	1	1602257880	2011	4	2	16	Wayne State University, Detroit,	United States
8.	Shevlin, Terry J.	2	6601990549	2007	4	4	129	University of California, Irvine	United States
9.	Thomas, Wayne B.	2	55429819400	2013	4	2	93	University of Oklahoma, Norman	United States
10.	Yasser, Qaiser Rafique	2	56410850900	2015	4	2	11	Preston University, Macerata	Pakistan
11.	Baber, William R.	1	6603803176	2012	3	3	44	Georgetown University, Washington, D.C.	United States
12.	Chan, Ann Ling Ching	1	26538464700	2013	3	3	27	National Chengchi University, Taipei	Taiwan
13.	Elayan, Fayez A.	1	6504768271	2016	3	1	5	Brock University, St. Catharines	Canada
14.	Fetry, Sylvia	1	57188843998	2015	3	0	0	Universitas Katolik Parahyangan, Bandung	Indonesia
15.	Hashim, Hafiza Aishah	1	55085453600	2010	3	1	4	Universiti Malaysia Terengganu	Terengganu

## Scientific Publication Analysis: Financial Reporting Quality Insight

**Table a1**

Search	Step	Query string *data retrieved on August 21, 2019	Search Result
Any articles related to FRQ	Insert the main keyword(s)	( TITLE-ABS ("Financial* reporting* quality*" ) )	530
Journal articles from the beginning until 2018(i)	Limit the search	( TITLE-ABS ( "financial* reporting* quality*" ) AND DOCTYPE ( ar ) AND PUBYEAR > 1959 AND PUBYEAR < 2019 AND ( LIMIT-TO (SRCTYPE , "j" ) )	417
Review Articles (ii)	Find the potentially review articles (21)  Screen the titles and abstracts to identify the real review articles  Collect EID of the review articles (21 papers)	( TITLE-ABS ( "financial* reporting* quality*" ) AND ( TITLE ( recent OR progress OR review OR critical OR revisit OR advance OR development OR highlight OR perspective OR prospect OR trends OR bibliometric OR scientometric ) OR ( ABS ( progress OR review OR bibliometric OR scientometric ) ) ) AND ( LIMIT-TO ( SRCTYPE, "j" ) ) AND ( LIMIT-TO ( DOCTYPE, "ar" ) ) AND ( EXCLUDE ( PUBYEAR, 2020 ) OR EXCLUDE ( PUBYEAR, 2019 ) )	21
FRQ research articles only (iii)	Add EIDs in (ii)	( TITLE-ABS ( "financial* reporting* quality*" ) ) AND NOT ( EID ( 2-s2.0-85045382129 OR 2-s2.0-85064757986 OR 2-s2.0-85047416784 OR 2-s2.0-85037599853 OR 2-s2.0-85030836226 OR 2-s2.0-85029458895 OR 2-s2.0-85019517796 OR 2-s2.0-84994128773 OR 2-s2.0-84926413530 OR 2-s2.0-84928027287 OR 2-s2.0-84939245962 OR 2-s2.0-84924957187 OR 2-s2.0-84921908035 OR 2-s2.0-84941951468 OR 2-s2.0-84922487744 OR 2-s2.0-84875063534 OR 2-s2.0-80655124612 OR 2-s2.0-73949104057 OR 2-s2.0-47349084865 OR 2-s2.0-34748910800 OR 2-s2.0-41849147186 ) ) AND ( LIMIT-TO ( SRCTYPE , "j" ) ) AND ( LIMIT-TO ( DOCTYPE , "ar" ) ) AND ( EXCLUDE ( PUBYEAR , 2020 ) OR EXCLUDE ( PUBYEAR , 2019 ) )	417-21=396

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