

A Systematic Review of Accounting Practices for Reporting Investments in Associates and Joint Ventures: Equity Method and Consolidation Method

Siti Aisyah Mustafa¹, Shafie Mohamed Zabri^{2,*}, Kamilah Ahmad³, Romzie Rosman⁴

^{1,2,3} *Faculty of Technology Management and Business, Universiti Tun Hussein Onn, Batu Pahat, Johor, Malaysia*

⁴ *Institute of Islamic Banking and Finance, International Islamic University Malaysia, Gombak, Selangor, Malaysia*

*Corresponding Author: shafie@uthm.edu.my

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Abstract

Purpose: This paper presents findings from empirical studies related to the adoption of accounting practices, namely the equity and consolidated methods of accounting, for reporting investments in associates and joint ventures.

Design/ Methodology/ Approach: This review considered 21 published articles sourced from Scopus and Web of Science (WoS) databases, with the publication date spanning from January 1980 to December 2022. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) method was employed for article retrieval.

Findings: Based on the search results, the empirical research was synthesised and segregated into three (3) major domains: usefulness, value relevance and level of compliance. Despite having mixed empirical evidence across countries, the equity method is more beneficial to investors due to its positive relationship with market values and lower volatility. While crucial for creditors, the consolidation method significantly impacts financial statements and explains price fluctuations. The review suggests that future research should address implementation challenges, incorporate more qualitative studies and explore Asian datasets, which are currently underrepresented.

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Originality/ Value: This review synthesizes 44 years of empirical research on accounting practices for reporting investments in associates and joint ventures, focusing on the equity method and consolidation method. It identifies three distinct thematic domains within this body of literature, providing a comprehensive mapping of its development.

Keywords: Investment in associates and joint ventures, accounting practices, equity method, consolidation method

1.0 Introduction

The study of accounting practices that account for investments in associates and joint ventures has received a great deal of attention in the literature. This observation is likely attributable to the inexorable link between securities market valuations and reported financial information, indicating that business stakeholders and market participants have been attentive to changes in reported accounting figures. Early works, such as that of Ball and Brown (1968), showed that stock prices adjust to the release of income reports. More recent studies, such as those by Alfraih (2016), Sotti (2017) and Busari and Bagudo (2021), also support the view that financial statements share a significant portion of relevance to investors. The changes in accounting figures could be due to the accounting method used to reflect these changes, in addition to the company's operating performance, financing decisions and investments. Previous empirical studies have documented findings that provide the basis for such a view, particularly with regard to capital investment reporting. Reported investment income, conditioned to respective accounting practices, is said to be 'useful' and has 'value relevant' if it is informative for investors to form a price. For example, Sarquis and Santos (2018) documented that the change in accounting for investments from proportionate consolidation to the equity method has led to an impairment in assessing companies' financial indicators and rankings. In a much earlier note, Badenhorst and Brümmer (2015) claimed that individual components of disclosed financial numbers have the greatest incremental value as a group compared to a single entity, implying that those investments in subsidiaries, associates, joint ventures or partnerships as a group have greater usefulness.

The current accounting method for reporting such investments in accordance with the mandatory requirements of the Financial Accounting Standards Board (FASB) is the equity method (The IFRS Foundation, 2024). In general, the equity method is an alternative to proportionate consolidation and cost methods for recognising investments in associates and joint arrangements, encompassing the recognition of profits as well as net assets and liabilities. The equity method, in contrast to proportionate consolidation, requires investors to recognise their investments as a single-line item in the balance sheet at cost (Sarquis et al., 2021). After acquisition, the carrying amount changes by an amount equal to the investor's shares in the listed associates and joint ventures. In contrast, equity income is recognised by investors in their income statements as they share the post-acquisition profits of the associates and joint ventures, regardless of distributed. The following expectations arise from these differences: First, the equity method is more efficient as it does not inflate core earnings. Second, the earnings of associates and joint ventures reported in one (1) line might provide new data to the market (Tutticci, 2002). Third, the difference in the level of control and influence exerted by investing companies over their investees also raises concerns about the usefulness of

these methods for financial reporting data, particularly in scenarios where companies hold joint arrangements with other entities. These expectations have resulted in an increase in the research examining the empirical implications of these methods.

Despite abundant studies on this topic, efforts to systematically review the research are still meagre. Therefore, this paper attempts to report empirical research findings on equity and consolidated methods of accounting for reporting in associates and joint ventures. Reports on the adoption of accounting methods and how they provide incremental value will demonstrate a baseline overview of the implications. The retrieval of current articles to construct a relevant review was guided by the main research question: Which method is more useful and value-relevant? The answer to this question will determine the magnitude of impact on which method carries informational content to the investors in such a way that it is reflected in stock prices and risk premiums. If it does, then we can assume that the market perceives the practice of not inflating earnings as well as net assets and liabilities reported in the financial statements through the receipt of dividends and profit from non-arm length transactions as informative. The current study's analysis will not only furnish new evidence to the corpus of accounting policy literature but also extend the existing line of qualitative findings by clustering empirical evidence that has not yet been the subject of academic studies. More importantly, the results of this study will provide important insights to various stakeholders, including the standard setters, as a reference to facilitate them in formulating relevant policies related to these methods.

Following the introduction, Section 2 presents the methodology utilised for conducting the review based on the PRISMA statement approach. Section 3 synthesises and demonstrates the results of the retrieved relevant articles. Sections 4 and 5 discuss the major themes related to the topic and provide concluding remarks, respectively.

2.0 Methodology

This section describes the approach used to retrieve the articles that relate to the equity and consolidated approaches to reporting investments in associates and joint ventures. The methodology called PRISMA was employed to perform the systematic review process using the resources retrieved from Scopus and manage the clustering of the criteria, the flow of the review process (identification, screening, eligibility and inclusion) and the data abstraction and analysis.

2.1 PRISMA

The PRISMA approach is an updated version of the QOURUM¹ statement introduced by an international group in 2009 to address meta-analyses and improve the suboptimal reporting of systematic reviews, a conceptual and practical advance that the QUOROM statement should have covered. It consists of a 27-item checklist and a flow diagram that guides authors in developing and writing systematic review protocols.

¹ QOURUM refers to Quality of Reporting of Meta Analyses.

2.2 Resources

This study retrieved articles from Scopus and WoS. Scopus is the second-largest abstract and citation database for peer-reviewed literature, consisting of scientific journals, books, conference proceedings and specialised publications. To date, Scopus comprises over 71 million records with more than 23,700 peer-reviewed journals from 5,000 publishers worldwide. The content is divided into four (4) main areas: Health Sciences (31%), which accounts for the largest share of the total content, Natural Sciences (28%), Social Sciences (25%) and Life Sciences (15%).

2.3 Criteria Clustering (Inclusion and Exclusion)

This study performed a criteria cluster to find the relevant articles and better manage the retrieved articles, whereby several eligibility criteria were defined. The search for articles based on the defined criteria was conducted using the refinement tool provided by each database. Four (4) criteria were used for the search: document type, language, source type and indexes. First, with regard to document type, only research articles were selected, excluding conference papers, book chapters and review articles. Second, articles published in non-English were excluded for reviewing convenience and to avoid difficulty in translating. In addition, only journal articles were included, and those in books, book series and conference proceedings were excluded. Lastly, only articles published in WoS and Scopus-indexed journals were reviewed.

Table 1: Criteria for Inclusion and Exclusion

Criterion	Inclusion	Exclusion
Document type	Research article	Conference paper, conference review, book chapter, review article
Language	English	Non-English
Source type	Journal	Book, book series, conference proceeding
Indexes	WoS and Scopus-indexed journal	Non WoS and Scopus-indexed journal

2.4 Systematic Review Process

As mentioned above, a simple identification, screening, selection and inclusion approach modelled on the PRISMA method was used. The systematic review process comprised four (4) phases and was conducted in June 2024. The first phase consisted of identifying the keywords used for the search. Based on previous studies and the keywords suggested in the databases' refinement tool, keywords related to the two (2) accounting methods were utilised. A total of 120 articles were found in Scopus, while 49 were found in the WoS, which were eligible for the review. The second phase was screening. Only articles that met the criteria listed in Table 1 were selected. Of the 169 articles, 53 were excluded, leaving only 116 for the review. The third stage was article selection, where the full articles were viewed and carefully scrutinised. A total of 103 articles were eliminated for failing to focus on the equity or consolidated method, lacking emphasis on associates or joint ventures, or were not empirical investigations. This removal resulted in only 21 articles eligible to be included and reviewed for the qualitative analysis.

Table 2: The Query String Used for Article Retrieval

Database	Keywords used
Scopus	TITLE-ABS-KEY (("equity" OR "consolidated") AND ("method" OR "practic*" OR "approach") AND ("investment") AND ("associates" OR "joint ventur*"))
Web of Science (WoS)	TS=("equity" OR "consolidated") AND ("method" OR "practic*" OR "approach") AND ("investment") AND ("associates" OR "joint ventur*"))

2.5 Data Abstraction and Analysis

The remaining articles were then assessed and analysed, focusing on studies that addressed the formulated questions. Data were extracted by first skimming the abstracts, followed by an in-depth review of the full articles to identify relevant themes. Qualitative content analysis was conducted to determine themes related to the equity or consolidated method for reporting investments in associates and joint ventures. The themes were organised around the established typology.

3.0 Results

The review results are presented in three (3) themes to reflect the usefulness, value relevance and compliance of both methods from the buy-side and sell-side perspectives. Below is a flow diagram detailing the application of the PRISMA method in retrieving the existing empirical studies to the qualitative synthesis conducted between 1998 and June 2024. The flow of the diagram is adapted from Moher et al. (2009).

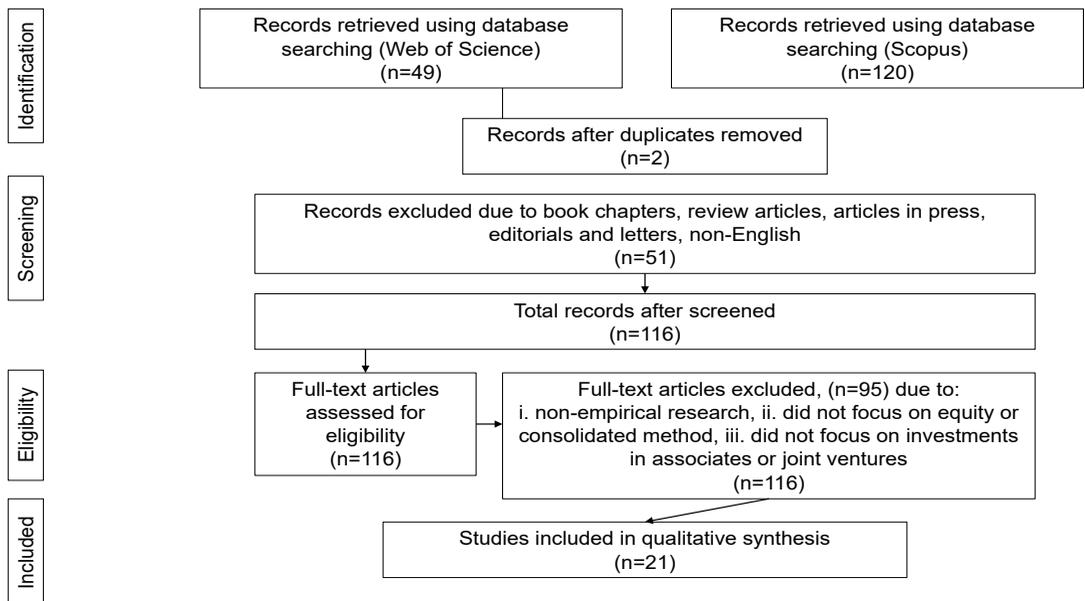


Figure 1: Flow Diagram

3.1 Study Characteristics

Twenty-one empirical studies were analysed, with four (4) originating from Australia (Bradbury et al., 2022; Tutticci, 2002; Morris & Gordon, 2006; Eddey & Sullivan, 1980), four (4) from the United States (Lee et al., 2013; Bauman, 2007; Stoltzfus & Epps, 2005; Graham et al., 1998), three (3) from Canada (Graham et al., 2001; Graham et al., 2003; Kothavala, 2003), two (2) from Singapore (Lim et al., 2003; Mazay et al., 1993) and one (1) each from Hong Kong (So et al., 2018), Brazil (Sarquis & Santos, 2018), China (Lai et al., 2019), Spain (Inchausti et al., 2017), Denmark (Schøler, 2016), the United Kingdom (O’Hanlon & Taylor, 2007) and the global dataset (Sarquis et al., 2021), respectively. Of these, 11 studies focused on firms with investments in joint ventures, five (5) on associated companies, and the remaining studies covered both types of investments, with sample sizes ranging from 1 to 8,962 listed firms. Due to the absence of control, studies on associated companies used only equity accounting rather than the consolidated method. Table 3 summarises an overview of previous empirical works related to equity and consolidated methods of accounting by the dataset used, concentration on investments, methods employed and their findings.

Table 3: General Description of the Articles Included in the Review

No.	Reference	Sample	Country	Type of Investment	Method	Theme
1.	Bradbury et al. (2022)	154 listed companies,	Australia	Associate	Multiple regression	Usefulness
2.	Sarquis et al. (2021)	551 firms, 26 countries	Global	Joint venture	Multiple regression	Compliance
3.	So et al. (2018)	Listed companies	Hong Kong	Joint venture	Multiple regression	Value relevance
4.	Sarquis and Santos (2018)	Single firm	Brazil	Joint venture	Comparison of information in financial statement	Value relevance
5.	Lai et al. (2019)	8,962 listed companies	China	Associate and joint venture	Probit regression	Usefulness
6.	Inchausti et al. (2017)	385 firms	Spain	Joint venture	Regression model	Value relevance
7.	Schøler (2016)	97 companies	Denmark	Subsidiary	OLS regression	Value relevance
8.	Lee et al. (2013)	8,302 firms	United States	Associate	Correlation coefficients	Usefulness
9.	Bauman (2007)	Manufacturing firms	United States	Associate and joint venture	OLS regression	Value relevance
10.	O’Hanlon and Taylor (2007)	Listed non-financial firms	United Kingdom	Joint venture	Regression model	Value relevance

Table 3: General Description of the Articles Included in the Review (continued)

No.	Reference	Sample	Country	Type of Investment	Method	Theme
11.	Morris and Gordon (2006)	100 companies	Australia	Associate and joint venture	Multiple regression	Compliance
12.	Stoltzfus and Epps (2005)	567 companies	United States	Joint venture	Multiple regression and financial ratios	Value relevance
13.	Graham et al. (2001)	172 firms	Canada	Joint venture		Usefulness
14.	Graham et al. (2003)	172 firms	Canada	Associate	Regression	Value relevance
15.	Kothavala (2003)	117 firms	Canada	Joint venture	Accounting ratios	Value relevance
16.	Graham et al. (2003)	78 ventures	Canada	Joint venture	DuPont and regression	Usefulness
17.	Lim et al. (2003)	122 firms	Singapore	Joint venture		Value relevance
18.	Tutticci (2002)	303 companies	Australia	Associate	OLS regression	Value relevance
19.	Graham et al. (1998)	133 firms	United States		Regression model	Value relevance
20.	Mazay et al. (1993)	200 firms	Singapore	Associate	Multiple regression	Value relevance
21.	Eddey and Sullivan (1980)	100 firms	Australia	Joint venture	Qualitative	Usefulness

3.2 Three Major Related Themes

3.2.1 Value Relevance

Early works in examining the value relevance of adopting an accounting method began in the 1990s (refer to Table 4). It was noticed that considerable efforts of prior studies to the analysis primarily focused on assessing whether asset prices moved in a direction that reflected the reported earnings and balance sheet under the equity method vis a vis its counterpart, proportionate consolidation when financial statements were disclosed to the market. If it did, such changes conditioned to which accounting treatment used would conceivably be perceived as 'value relevance'. Greater relevance of both methods indicated that the clausal structure between price and content in financial statements was more crucial, especially in investment decision setting, and vice versa. Nevertheless, the perspectives drawn in the previous studies differed in the context of types of investments involved – either in associates or jointly controlled entities, market coverage, securities in question, equities or debts and entities involved, buy-side or sell-side.

Among the pioneers, Graham et al. (1998) tested the association between stock price returns and disclosures of fair value investments in publicly listed stocks accounted for by the equity method. They found that stock price linked positively to differences between disclosed fair values and recognised book values, suggesting the irrelevance of information contained therein. Later, Graham et al. (2001) compared the effects of proportional consolidation and equity methods on firms with selected financial ratios and stock returns in 78 Canadian ventures. The former was more usable for an ex-ante analysis than the latter. In particular, a stronger linkage was evidenced between return on investment and profit margin, asset turnovers, leverage ratios and stock returns under the proportional consolidation method in relation to the application of the equity method. Supporting a similar view to Graham et al. (2001) are Kothavala (2003), Stoltzfus and Epps (2005), Bauman (2007) and Sarquis and Santos (2018). Kothavala (2003) compared value relevance between the alternative methods of accounting, proportionate consolidation and equity from the perspective of market risk. Yield spread and standard deviation to proxy for bond risk premium and stock price volatility were measured. Evidence that favoured proportionally consolidated financial statements was found, which possessed a greater risk relevance than equity method statements in explaining stock price fluctuations. Lim et al. (2003) also supported similar evidence. They examined the impact of additional information disclosure on information asymmetry in joint ventures among Singapore companies, as measured by bid-ask spreads. The results showed that such disclosures significantly reduced bid-ask spreads, with the reduction greater when investments were substantial. Smaller firms that invested experienced a greater reduction in information asymmetry than larger firms. These results suggested that providing additional information about joint ventures could reduce information asymmetry in equity markets, providing important insights for policymakers.

Nevertheless, in terms of bonds, equity method statements were more risk-relevant. Likewise, Bauman's (2007) findings supported Kothavala's (2003) results for bond ratings. In a similar line, Stoltzfus and Epps (2005) argued that the proportionate consolidation method gave higher value relevance to bond risk premiums when investees were debt-guaranteed by investors. Otherwise, the value was distorted. A much more recent work by Sarquis and Santos (2018) discovered that total assets, liabilities and revenues reported under proportionate consolidation were substantially higher than the equity method, resulting in a significant impact on the largest private firm in Brazil in terms of financial indicators, its rankings and other financial analyses reported.

Table 4: Comparison of the Value Relevance Between the Two Methods

No.	Reference	Value Relevance	Key Findings
1.	So et al. (2018)	Equity method	Proportionate consolidation offers less value to investors than the equity method.
2.	Sarquis and Santos (2018)	Proportionate consolidation	<ol style="list-style-type: none"> Total assets, liabilities and revenues reported using the consolidation method are higher than the equity method. This variation affects financial indicators, industry rankings and the need to renegotiate covenants.

Table 4: Comparison of the Value Relevance Between the Two Methods (continued)

No.	Reference	Value Relevance	Key Findings
3.	Inchausti et al. (2017)	Inconclusive	The choice of the accounting regime does not affect the bias, accuracy or dispersion of earnings forecasts, target prices or stock recommendations, regardless of whether firms provide information in the notes. It is inconclusive whether such variation is attributable to the method chosen.
4.	Schøler (2016)	Equity method	The equity method exhibits lower volatility than alternate measures, even when industry differences and transparency levels are controlled.
5.	Bauman (2007)	Proportionate consolidation method	The consolidation method better explains bond ratings than the equity method.
6.	O'Hanlon and Taylor (2007)	Negative valuation impact of disclosures of the liabilities of equity-accounted investees	A negative valuation impact of disclosures of the liabilities of equity-accounted investees.
7.	Stoltzfus and Epps (2005)	Proportionate consolidation method	Switching to proportionate consolidation would provide creditors with more value-relevant information when companies guarantee the debt of a joint venture.
8.	Graham et al. (2003)	Significant positive relation between the equity method's fair value disclosures and investor firms' market values and security returns.	A significant positive relation between the equity method's fair value disclosures and investor firms' market values and security returns.
9.	Kothavala (2003)	Proportionate consolidation for price volatility and equity method for bond ratings	The proportionate consolidation method better explains price fluctuations, whereas the equity method better explains bond ratings.
10.	Lim et al. (2003)	Equity method	Supplementary information disclosure significantly reduces bid-ask spreads, with greater reductions when investments are substantial.
11.	Tutticci (2002)	Equity method	The equity method has greater value relevance than the cost method.
12.	Graham et al. (1998)	Equity method	<ol style="list-style-type: none"> Standard setters should consider requiring the recognition of fair values for equity method investments, especially in publicly traded stocks. Concerns over control premiums or seller discounts do not limit market participants from using fair value disclosures for firm valuation.

3.2.2 Usefulness

A total of seven (7) out of 21 studies focused on the usefulness of both methods. Studies by O'Hanlon and Taylor (2007), Lee et al. (2013) and Lai et al. (2019) provided empirical consensus on the lack of usefulness of the equity method. O'Hanlon and Taylor (2007) conducted an observation on the viewpoint of investees in UK-listed firms. They found a negative valuation impact of disclosures of the liabilities of equity-accounted investees. The usefulness of investee-liability disclosures was more pronounced for guaranteed joint venture liabilities than for guaranteed associate liabilities. According to Lee et al. (2013), opacity effects showed that the equity method yielded less accurate and more dispersed annual earnings forecasts. Lai et al. (2019) indicated that firms with declining core incomes were more likely to engage with equity method investments and that equity method earnings did not improve earnings persistence, though found to be relevant.

Contrary to the above studies, findings by Tutticci (2002), So et al. (2018) and Bradbury et al. (2022) offered many tangential thoughts on this, where their conclusions pointed towards incremental usefulness of the equity method. Tutticci (2002), for instance, using a sample of 303 Australian companies investing in associates during the pre-recognition of the regulatory period and found that the equity method was value-relevant over the cost method. However, the market did not perceive the information in the supplementary notes was reliable or relevant. Supporting a similar view to Tutticci (2002) are recent works by So et al. (2018) and Bradbury et al. (2022). Bradbury et al. (2022) argued that the equity method was useful when alternative methods, such as fair value and proportionate consolidation, were not available. So et al. (2018), on the other hand, claimed that proportionate consolidation did not offer higher value relevance than the equity method. The equity method's vertical aggregation of a portion of the operations, assets and liabilities of the jointly controlled entities with those of the venturer was more informative to investors than the proportionate consolidation method.

Table 5: Summary of Studies on the Usefulness of Equity Method and Consolidated Method Accounting

No.	Reference	Usefulness	Key findings
1.	Bradbury et al. (2022)	Equity method	The equity method is useful when other alternate measures are not available – fair value or proportionate consolidation.
2.	So et al. (2018)	Equity method	Proportionate consolidation's horizontal aggregation of a portion of the operations, assets and liabilities of the jointly controlled entities with those of the venturer is less informative to investors than the equity method's vertical aggregation.
3.	Lai et al. (2019)	Equity method earnings do not improve earnings persistence though relevant.	<ol style="list-style-type: none"> 1. Firms with declining core earnings are more likely to have equity method investments than firms with increasing core earnings. 2. Firms with lower core earnings report higher equity method earnings. 3. Moreover, equity method earnings do not improve earnings persistence but are found to be relevant.

Table 5: Summary of Studies on the Usefulness of Equity Method and Consolidated Method Accounting (continued)

No.	Reference	Usefulness	Key findings
4.	Lee et al. (2013)	Equity method yields less accurate and more dispersed annual earnings forecasts	<ol style="list-style-type: none"> 1. Opacity effect: The disclosure of the equity method leads to increased information asymmetry, which results in higher forecast errors and a greater dispersion of forecasts among analysts. 2. Diversification effect: The diversification of the income streams of investors and investees improves the predictability of earnings and thus reduces forecasting errors and the dispersion of forecasts among analysts.
5.	O'Hanlon and Taylor (2007)	Negative valuation impact of disclosures of the liabilities of equity-accounted investees.	Negative valuation impact of disclosures of the liabilities of equity-accounted investees.
6.	Graham et al. (2001)	Proportionate consolidation method	The proportionate consolidation method has predictive value over equity when accounting for joint ventures.
7.	Eddey and Sullivan (1980)	Equity method	The equity method is preferred against the proportionate consolidation method.

3.2.3 Level of Compliance

Table 6 demonstrates the level of compliance and adoption of both methods by Sarquis et al. (2021) and Morris and Gordon (2006). Sarquis et al. (2021) revealed widespread non-compliance with disclosure requirements outlined in IFRS 12. Firm-level characteristics, such as size, leverage level and ownership focus, are more influential in explaining compliance levels than country-level variables. Additionally, the materiality of joint ventures is positively linked to compliance and vice versa. Morris and Gordon (2006) examined the adoption of the equity accounting method in both regulated and unregulated environments. Before introducing Australian Accounting Standard (AAS 14) in 1984, many Australian companies voluntarily used equity accounting in their consolidated accounts. AAS 14 and the subsequent Accounting Standard Review Board (ASRB) 1016 mandated that equity accounting be disclosed separately, either in supplementary disclosures or footnotes, not consolidated accounts. Companies adopting equity accounting tended to do so when it increased reported earnings. Before AAS 14, adopters often had declining Earnings per Share (EPS) and were less likely to be audited by large firms, and leverage was a factor in adoption. Post-AAS 14, adopters showed equity accounting in ways that either increased reported earnings or disclosed it in footnotes when it decreased earnings. Higher associate investments were more common among post-AAS 14 adopters, indicating that adopting the method is 'opportunistic' rather than efficient motives. In a much earlier note, Mazay et al. (1993) found that non-compliance with the standard occurred through using the equity method in primary statements or the cost method without supplementary disclosures. The findings advocated the contractual efficiency motive, linking accounting choices to the proportion of listed associates and the materiality of investments and guarantees but not to the ownership degree. These results contradicted Morris and Gordon's

(2006) study, which suggested that opportunistic behaviour drove the choice of accounting method.

Table 6: Level of Compliance of Accounting Methods

No.	Reference	Level of Compliance/ Adoption	Key Findings
1.	Sarquis et al. (2021)	Low	<ol style="list-style-type: none"> 1. Firm-level characteristics, such as size, leverage, ownership concentration and materiality of joint ventures, influence the level of compliance with IFRS 12 disclosure requirements. 2. Larger, less leveraged firms, lower ownership concentration and more material joint ventures exhibit higher compliances.
2.	Morris and Gordon (2006)	Opportunistic adoption	The adoption of equity accounting predominates when it boosts earnings upwards and vice versa, suggesting opportunistic practice.
3.	Mazay et al. (1993)	Contractual efficiency motive	The adoption of the accounting method is more of a contractual efficiency motive, linking accounting choices to the proportion of listed associates, the materiality of investments and the existence of guarantees, but not to the ownership degree of associates.

4.0 Discussion

This review attempted to systematically analyse and synthesise the existing studies on equity and consolidated methods of accounting practices for reporting investments in associates and joint ventures. A rigorous review obtained from two (2) databases has resulted in 21 articles related to both methods. Within the scope of this review, three (3) major themes of empirical studies related to accounting practices for reporting such investments emerged: usefulness, value relevance and level of compliance. In relation to value relevance, research examining the integrative function of equity and consolidated methods in terms of value relevance, including how each method impacts the behaviour of security prices, earnings forecasts and risk premia, has increased since the work of Ohlson (1995). Nevertheless, the results of the empirical works are ambivalent. In particular, two strands of evidence are notable: the proponents and opponents of the method. The first argued that the equity method offered greater value relevance than its alternatives. The second emphasised that the equity method was less useful in explaining asset price changes, provided a less accurate profit forecast and was less relevant to risk. Examples of studies supporting the former included Bradbury et al. (2022), So et al. (2018), Graham et al. (2003) and Tutticci (2003). They generally documented evidence of the increasing usefulness of the equity method and the importance of variables, such as book value, earnings and accounting ratios. Meanwhile, Sarquis and Santos (2018), Lai et al. (2017), Scholer (2016), Bauman (2007), Stoltzfus and Epps (2005) and Kothavala (2003) were studies that supported the latter. These studies highlighted the dominance of alternative methods, especially proportionate consolidation, to possess value relevance greater than the equity method when judging security returns, forecasts and risks. Whereas in terms of the

level of compliance, Sarquis et al. (2021) found that compliance with the standard is generally low, influenced by firm characteristics, such as size, leverage, ownership concentration and the materiality of joint ventures. Morris and Gordon (2006) observed that adopting equity accounting was often opportunistic and used primarily to increase earnings. This is contrary to the report by Mazay et al. (1993), which argued the choice of accounting method was driven by contractual efficiency motives, linked to the proportion of listed associates, the materiality of investments and the presence of guarantees, but not the number of ownerships in associates.

This systematic review provided insightful information on the adoption of accounting methods for regulators, especially on how it affects the financial indicators of the firms and their value relevance on both stock price and risks. Nevertheless, there are several limitations worth noting. First, absent concentration pertaining to challenges or issues in implementing each method in-house necessitates further investigations. This aspect remains unknown. Second, the majority of studies are quantitative in nature. Future works should consider qualitative designs as they might offer more detailed explanations towards understanding the effects of practising each method. In addition, unequal attention to the Asian dataset (with the exception of Lai et al., 2017 on China) leaves room for an interesting case study.

5.0 Conclusion

This systematic review demonstrated the usefulness, value relevance and degree of compliance with different accounting methods in reporting on investments in associates and joint ventures. Despite the ambiguous results of empirical evidence in various country contexts, investors view the equity method as more valuable due to its positive relationship with market values and lower volatility. On the other hand, the proportionate consolidation method provides important information that affects financial statements, is crucial for creditors, and explains price fluctuations. The review recommends several directions for future studies. First, the lack of focus on implementation challenges requires further investigation. Second, predominantly quantitative studies suggest a need for qualitative research to understand the effects of each method better. Finally, insufficient evidence of Asian data suggests a potential area for future case studies.

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