

A Systematic Literature Review of Study Populations and Sampling Designs Used In Studying Adoption of International Accounting Standards and Accounting Quality Research

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Abstract:

The aim of this study was to review the literature to identify and report on the study populations and sampling designs used in International Accounting Standards and Accounting Quality articles. A systematic search of academic literature was conducted for relevant literature on IAS/IFRS and Accounting Quality published between January 2005 and December 2020. The main search used Emerald Publishing Group, EBSCOhost, Palgrave MacMillan Journals, Sage Journals Online, Taylor & Francis Online Journals and Wiley Online Library databases. Articles were included if they were assessed as having medium or higher evidence for a representative sample. All full-text papers that met the eligibility criteria were examined in detail and relevant data extracted. The searches identified a total of 50 publications for inclusion: The main search identified 5 (10.0%) that indicated the sampling technique used in the study while 45 (90.0%) articles did not state their sampling technique. Key design considerations were: an a priori aim to recruit a representative sample; a reliable sampling frame; using multiple non-probabilities sampling methods; and, if possible, including a probability sampling component. 12 research design types were utilized in the 50 samples reviewed in this study. Descriptive research design was at 64%. These findings encourage more rigorous reporting of future studies so that the representativeness of research designs and sampling frames and techniques used in these researches can be more readily assessed. It further showed that the inclusion of sampling frame and sampling techniques are integral part of research and must be included in future similar studies.

Key Word: IAS, IFRS, Accounting Quality, study population, sampling and sampling techniques

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I. Introduction

Study population

The population can be referred to as the universe comprising all the elements or items that one could possibly look at. It is the entire group of people, events, things of interest that a researcher wishes to investigate (Sekaran, 2008). Research workers in 19th century attempted to study entire population. Population size is the number of individuals in the population while population density is the number of individuals per area or volume of habitat. It is not practical to study entire populations especially where the units within the population is very large. This will require a lot of resources ranging from financial, time, researchers and equipment. These constraints therefore dictate that components of populations should be selected carefully for studies with the objective of generalizing the findings to the entire population. Such study requires sampling that would generate more meaningful data for inquiry..

Sampling

The complexities exhibited by study populations make it very tiring to fully study them. This calls for use of sampling as a technique to facilitate the study of individuals within such a population. We cannot study entire populations because of feasibility and cost constraints, and hence, we must select a representative sample from the population of interest for observation and analysis. A sample is part of the population that is selected for study or review. It is extremely important to choose a sample that is truly representative of the population so that the inferences derived from the sample can be generalized back to the population of interest (Anol B. 2012) Representative samples are subgroups of individuals that contain all the characteristics of interests from the study population. The sample frame represents a list of the target population from which the sample is chosen. Sometimes the frame can consist of the entire target population, but this is uncommon (Enticott et al, 2017).

There are various types of sampling methods. The sampling method adopted in any study is guided by several factors key among them being the aim of the study and the data type involved.

Sampling methods

Sampling can be broadly classified into probability which involves random selection, allowing you to make statistical inferences about the whole group and non-probability sampling which involves non-random selection based on convenience or other criteria, allowing you to easily collect initial data. According to Iiker and Kabiru (2017), probability sampling is most preferred due to its ability to include each element of the target population in the study. Probability sampling methods include: systematic sampling, stratified sampling, cluster sampling, random sampling and multi stage sampling. Under these methods all the units of analysis have the potential of being included in the study. Non-probability sampling on the other hand includes: quota sampling, accidental sampling, judgmental or purposive sampling, expert sampling, snowball sampling, modal instant sampling and heterogeneity sampling (C. R. Kothari, 2004) and (Iiker and Kabiru 2017)

International Accounting standards (IAS/IFRS)

International accounting standards (IAS) refers to a set of accounting standards issued by the International Accounting Standards Committee formed in 1973. These standards were aimed at promoting convergence in financial reporting across the globe in order to make it easy for businesses to communicate in one language. Prior to these efforts each country had developed their own set of accounting standards which relied on generally accepted accounting principles (GAAPs). According to Barth et al (2008) most firms across the world adopted the IASs between 1993 to 2001. These IAS were later replaced by International Financial Reporting Standards (IFRSs) by International Accounting Standards Board (IASB) in 2001 in an effort to improve financial reporting quality. As of 31st December 2020, 120 countries had adopted the IFRSs. This number is expected to hit 150 in the near future. Some countries have not adopted the IFRSs and continue to use GAAPS such as USA, China and Japan. The IASB and the Financial Accounting Standards Board (FASB) of USA have been working on various convergence projects aimed at addressing outstanding quality and reporting issues as well as regulatory requirements which are aimed at ensuring consistency and understandability of the IFRSs across the globe. The adoption of IFRS must be studied under the context of country specific requirements. Most early adopters were voluntary before they were legally compelled to do so. The adoption was influenced by the level of development of the country's financial reporting systems and the strength of their domestic regulatory requirements.

Accounting Quality

Accounting quality refers to the quality of financial information derived from the financial reporting systems of various firms. This quality plays a critical role in influencing business decisions of different users of accounting information such as prospective investors, tax agencies, creditors and suppliers of funds, customers and shareholders alike. The adoption of IFRS in many parts of the globe has attracted a lot of attention between the accounting standards and accounting quality (Ebaid 2016). The promoters of IFRS adoption opine that the application of IFRS enhances cross border uniformity, improves corporate transparency and accountability, enhances understandability of financial reports globally, improves financial reporting quality and easy transfer and access to capital in global markets than local standards (Bae et al, 2008; Barth et al, 2008; Ding et al, 2007; Daske and Gebhardt, 2006)

Prior to the new focus of studies examining whether the effect of adoption of IFRS is mandatory or voluntary (Barth, Landsman, & Lang, 2008; Clarkson, Hanna, Richardson, & Thompson, 2011; Daske, 2006; Iatridis, 2010; Kargin, 2013; Tsoligkas & Tsalavoutas, 2011), many studies occur in a setting where IFRS is used in different contexts (Agnes Cheng, Lee, & Yang, 2013; Chandrapala, 2013; Cuijpers & Buijink, 2005). More recent studies have confirmed the improvement in the descriptive power of the accounting numbers following the adoption of IFRS (Barth et al., 2008; Bartov, Goldberg, & Kim, 2005; Iatridis, 2010; Jermakowicz, Prather-Kinsey, & Wulf, 2007; Landsman, Maydew, & Thornock, 2012; Salameh, 2013). Escaffre and Sefsaf (2010) concluded that the effect of adopting IFRS on the quality of accounting numbers depends on institutional factors in each country, which is confirmed by Zogning (2013). This result may be attributed to the existence of additional information under IFRS. Accounting quality is measured through several metrics such as loss recognition, reduced earnings management, and reduced management opportunistic discretions. Opponents of convergence of financial reporting argues that due to different regulatory frameworks in different countries, the application of US GAAPs could produce more accounting quality than IFRS

General objective

To systematically conduct a literature review on study populations and sampling designs employed by various authors on the study of adoption of international accounting standards and effect on accounting quality.

Research Questions

- i. To review the type of population studied by various authors while researching on adoption of international accounting standards and effects on accounting quality.
- ii. To assess the sampling frame and sampling techniques adopted in the study of adoption of international accounting standards and effects on accounting quality.

II. Material And Methods

We conducted a PRISMA (Preferred Reporting Items for Systematic reviews and Meta-Analysis) for conducting and reporting a systematic review. A systematic search for all academic literature identified available studies that met the criteria. To ensure inclusivity of literature, we included papers that used qualitative, quantitative and mixed methods designs. The review process is detailed in the discussion that follows below.

Main Search strategy

Searches for English language papers published from January 2005 to December 2020 were conducted in the following databases

1. Emerald Publishing Group
2. EBSCOhost
3. Palgrave McMillan Journals
4. Sage Journals Online
5. Taylor & Francis Online Journals
6. Wiley Online Library

The following accounting subject heading was searched: *International Accounting Standards and Accounting quality*. The searches did not discriminate any part of the world since the adoption of the standards had gained worldwide application from 2005. The original searches were conducted in January 2021. An additional criterion was added on the topic and a second search conducted between 1st and 3rd February 2021 for: *International Accounting Standards and Accounting Quality since the COVID-19 Pandemic*. This was aimed at screening the publications to see the effect of the pandemic and consequently to review these articles only. There were a few publications for the year 2020 but did not include the pandemic in their title and therefore the review ignored the pandemic title.

Initial Inclusion Criteria

Abstracts and titles were tested for initial inclusion by confirming that they contained the key search words; *IAS/IFRS and Accounting Quality*. Full text articles were retrieved for all records that passed the screen. They were then examined and met the eligibility criteria if they were:

1. Published in the English language
2. Peer-review publication
3. Primary article providing original data
4. Focus on IAS/IFRS
5. Published between January 2005 and December 2020

Based on these criteria, two databases were excluded. EBSCOhost was excluded on account of only abstracts were accessible and not the full text of the papers searched. Wiley Online Library was excluded on the basis that all access was based on the review paying for limited access. Palgrave McMillan Journals was excluded on account of non-accessibility. This would have been very expensive on account of the nature and extent of the review work involved.

Final Inclusion Criteria

The final sample size was set at 50 given the magnitude of the articles involved, the time available and the nature of the review. Full text articles that met the initial inclusion criteria then underwent an assessment for study quality which consisted of an analysis for level of evidence for obtaining a representative sample. The final inclusion criteria required articles to have achieved a high level evidence of obtaining a representative sample.

Data Collection

Articles identified as eligible for analysis were read and key information extracted by the reviewers. This included the study focus (IAS/AFRS & accounting quality), design target sample size and study target population. Actual data collection was conducted on four databases which met the condition for full text access to review publications namely: Emerald Publishing group, Sage Journals Online and Taylor & Francis Online.

III. Result and Discussion

Based on the searches, the selected sample was distributed as per table 1 below

Table 1: Search sample adopted for study.

DATABASE	NUMBER OF SEARCHES RETURNED	PROPORTION	TARGET SAMPLE %TAGE	SELECTED SAMPLE
Emerald Publishing Group	95000	24%	11.8	15
Sage Journals Online	90455	22%	11.2	15
Taylor & Francis Online	217467	54%	27.0	20
TOTAL	402,922	100%	50	50

The searches identified a total of 402,922 articles which qualified to be included in the review. Based on the proportion of searches per database, we selected the 50 sample not according to the proportion of each database since that would have given very insignificant number for some databases.

Table 2: Publications describing studies included in this review (n=50)

Author(s)	Country	Study design & Focus	Sampling method used	N and Response rates(Rr)
Kaya et al, 2015	Germany	Descriptive, accounting	Not indicated	n=128
Meeks et al, 2009	None	Descriptive, accounting	Not indicated	n=0
Ezenwoke et al, 2020	Nigeria	Descriptive, accounting	Not indicated	n=73
Camfferman, 2020	Netherlands	Descriptive, accounting	Not indicated	n=0
Guerreiro et al, 2015	Portugal	Qualitative, accounting	Not indicated	n=18
Sellami & Gafsi, 2019	Tunisia	Descriptive, accounting	Not indicated	n=110
Christensen et al, 2015	Germany	Cross-sectional, accounting	Not indicated	N=310
Aljosa et al, 2017	Slovenia	Qualitative, accounting	Not indicated	N=20,796
Akwasi and Sellani, 2005	USA	Descriptive , accounting	Not indicated	N=0
Soderstrom & Sun, 2007	USA	Descriptive, accounting	Not indicated	N=0
Todd M. Hines, 2007	USA	Descriptive, accounting	Not indicated	N=0
Eierle et al, 2018	Germany	Survey, accounting	Disproportionate stratified random sampling	N=4000 Rr 8.05%
Katherine Schipper, 2005	USA	Descriptive, accounting	Not indicated	N=0
Wang & Yu, 2015	Hong Kong	Descriptive, accounting	Not indicated	N=432
Najeb Masoud, 2017	Jordan	Panel Data Analysis, accounting	Not indicated	N=66
M Negash, 2009	South Africa	Systematic review, accounting	Not indicated	N=4
Cho et al, 2015	Korea	Cross-sectional, accounting	Not indicated	N=1,781
Geoffrey Whittington, 2005	United Kingdom	Descriptive, accounting	Not indicated	N=0
Hou et al, 2016	China	Descriptive, accounting	Not indicated	N=8,899
Glaum et al, 2013	Germany	Structural Equation Model, accounting	Not indicated	N=1,908
Cuadrado-Ballesteros & Bisogno, 2021	Italy	Descriptive, accounting	Not indicated	N=33
Cortese & Walton, 2018	United Kingdom	Descriptive, accounting	Not indicated	N=0
Didier Bensadon, 2015	France	Case Study, accounting	Not indicated	N=1
Chalmers et al, 2011	Australia	Descriptive, accounting	Not indicated	N=20,025
Jones & Caruana, 2015	Malta	Qualitative, accounting	Not indicated	N=28
Manes-Rossi et al, 2016	Italy	Descriptive, accounting	Not indicated	N=0
Fulier & Klein, 2015	Germany	Case study, accounting	Not indicated	N=0
Frintrup et al, 2020	Austria	Web-based survey, accounting	Not indicated	N=50
Matolcsy et al, 2016	Australia	Descriptive, accounting	Judgmental sampling	N=280
Cameran et al, 2014	Italy	Descriptive, accounting	Not indicated	N=1,218
Hsu et al, 2015	Taiwan	Descriptive, accounting	Not indicated	N=420
Sun & Vichitsarawong, 2014	USA	Descriptive, accounting	Not indicated	N=102
Wu & Zhang, 2014	USA	Descriptive, accounting	Not indicated	N=2800
Brusca & Martinez, 2015	Mexico	Descriptive, accounting	Not indicated	N=37
Ferrari et al, 2012	Germany	Descriptive, accounting	Not indicated	n=746
Lopez et al, 2020	Chile	Descriptive, accounting	Not indicated	N=0
Nurunnabi et al, 2019	Saudi Arabia	Survey, accounting	Not indicated	N=136 Rr=72%
Bakr et al, 2019	Saudi Arabia	Interpretive, accounting	Snowball sampling	N=35
Yamani & Almararwah, 2018	Saudi Arabia	Quantitative & Qualitative, accounting	Not indicated	N=33

Author(s)	Country	Study design & Focus	Sampling method used	N and Response rates(Rr)
Negash et al, 2017	USA	Descriptive, accounting	Not indicated	N=54
Amidu & Issahaku, 2017	Ghana	Descriptive, accounting	Not indicated but all banks were studied	N=329
Taylor, 2009	Australia	Descriptive, accounting	Stratified Random sampling	n=150
Kamarudin et al, 2013	Malaysia	Descriptive, accounting	Not indicated	n=4010
Mhedhbi & Zeghal, 2013	Canada	Descriptive, accounting	Not indicated	N=31
Shigufta Hena Uzma, 2015	India	Qualitative , accounting	Not indicated	N=0
Sassi & Bahri, 2019	Tunisia	Descriptive, accounting	Not indicated	N=177
Krismiaji & Suhardjanto, 2014	Indonesia	Descriptive, accounting	Purposive sampling	N=454
Noor Houqe, 2017	New Zealand	Literature review, accounting	Not indicated	N=0
Morais & Dionisio, 2017	Portugal	Panel data analysis, accounting	Not indicated	N=2078
Ibrahim El-Sayed Ebaid, 2016	Egypt	Descriptive, accounting	Not indicated	N=74

Diversity of coverage of choice topic.

The topic used to conduct this review has wide application in most countries of the world based on the number of countries representing all the geographical continents. Adoption of international accounting standards has attracted a lot of interests from accounting scholars, practitioner, regulators and other stakeholders since the first attempt by the International Accounting Standards Board issued such guidelines in 2001.

Study design types.

Different study designs were employed in the reviewed papers by different authors. An examination of the study design types showed that Descriptive Research design was popularly deployed at 64%. This was followed by Qualitative research design at 8%. Cross-sectional, survey design, panel data analysis design and case study designs were used at 4% each. Others such as systematic review, structured equation model, web-based survey, interpretive design, qualitative and quantitative design and literature review were used at 2% each. There was no clear identification of the design type in the papers thus making the work of the researcher fairly complicated to tease this out.

Sampling Techniques

Purposive sampling were used in 4% of the studies while disproportionate stratified sampling, snowball sampling and stratified random sampling were used in 2% of the studies each. 90% of the studies did not disclose the sampling techniques they used thus making it difficult to assess the procedures used in sample selection. Most of the studies used established databases to access secondary information on the study topic. The 10% usage of sampling techniques in accounting research from a sample of 50 studies is an indication of lack of appreciation of the various sampling techniques available for use. This low adoption of sampling techniques could be attributed to inability to differentiate sampling techniques.

Other design issues

The type of articles reviewed made it difficult to clearly pinpoint the types of research design most applicable. The multiplicity of articles retrieved under the various databases made it very challenging to develop effective search criteria for the paper type. There mix up of research papers, opinion papers, literature reviews, working papers in all the databases.

IV. Discussion

The reviewed articles showed that it is possible to achieve a representative sample if a good topic is used to conduct a search using unlimited databases. Almost all the studies had used research designs to facilitate the achievement of the study objectives expect for a few. The research question number one has been answered by the study result which has showed that varying populations were studied by authors of articles under the study. Table 2 has detailed the types of designs adopted to study population and sampling techniques. The research question number two on sampling techniques used has revealed that accounting researchers are not good at disclosing the type of sampling technique utilized in their studies. The majority 90% did not indicate the sampling techniques in their articles compared to 10% who used atleast four different sampling techniques.

Limitations of the study

This study met a number of limitations for obvious reasons. First and foremost, the large number of sample of 50 required more time and resources to perform an effective review. The timelines set for this review coincided with New Year activities which took up time. Secondly, the search criterion was not specific to the type of articles to be included in the review thus inhibiting specialisation. This meant that any paper could appear in the initial search from the databases as long as it was under the specified topic. Thirdly, access to the specified databases specifically EBSCOhost, Palgrave Macmillan Journals and Wiley Online Library was not possible due to some reasons. This reduced the probability of selecting a good representative sample of articles for inclusion.

V. Conclusion

This review suggests that research designs in accounting research can significantly improve the relevance of the research findings if they are well strategized in the papers. It further showed that the inclusion of sampling frame and sampling techniques are integral part of research and must be included in future similar studies. Finally, the findings suggest that more classification of the search criteria is important if more reliable results are to be derived from similar studies.

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