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Using a Disclosure Index Instrument to Quantify Attributes of Corporate Disclosure

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Abstract

Corporate disclosure is a theoretical concept that cannot be measured directly. However, the literature provides two approaches to measure it. The first approach investigates actual information disclosure and tries to operationalize the concept of disclosure into its main attributes such as quantity and quality. The second approach relies on the fact that corporate disclosure is an unobservable variable and uses some observable variables to proxy for it such as firm size. Each approach has its advantages and disadvantages. Also, the choice of research philosophy affects how a researcher approaches and measures corporate disclosure. As a positivist, I approach corporate disclosure as an objective and measurable phenomenon that has identifiable causes and consequences. I measured attributes of corporate disclosure using the first approach, mainly a disclosure index method, whether self-constructed or developed by a third party. I have made extensive use of the disclosure index method in my doctorate project and several publications. In this Case Study, I explain what a disclosure index is, the different variations of a disclosure index, how to develop a disclosure index for your study using examples from my research, and how to test its reliability and validity. The purpose is to help readers develop their own disclosure indices for their research.

Learning Outcomes

After reading this case study, students should be able to

- understand what a disclosure index is;
- identify the source of variation in a disclosure index;
- evaluate the benefits and challenges associated with developing a disclosure index;
- understand the process of developing a disclosure index; and
- assess the reliability and validity of their measure of disclosure.

Case Study

Project Overview and Context

Corporate disclosure is a deliberate release of information about a business that is of interest to stakeholders such as the business model, its financial and nonfinancial performance, and its operations and governance (Healy & Palepu, 2001). This information is released via various mediums such as annual, interim, and sustainability reports; corporate websites; press releases, and conference calls. The main purpose of corporate disclosure is to enhance the transparency and accountability of corporations and help stakeholders make informed decisions. Therefore, corporate disclosure has been subject to numerous empirical academic investigations to examine its determinants and consequences (e.g., Ali et al., 2023; Brown, Hinson, & Tucker, 2024; Chi, Wu, & Zheng, 2020). However, scholars face the methodologic challenge that corporate disclosure is a latent construct that cannot be measured directly.

My research focuses on investigating the causes and consequences of corporate disclosure, whether financial or nonfinancial. As a positivist, I consider corporate disclosure to be an objective and measurable phenomenon and use a quantitative method to measure it. I have used the disclosure index method in my research, whether self-constructed or developed by a third party such as the Bloomberg database. The choice between using a third-party disclosure score/rating or developing your own index depends on the research purpose, design, context, and data availability. For example, the studies by Hassan (2018) and Hassan and Romilly (2018) are quantitative studies on corporate environmental disclosure using multicountry samples and covering many years. The Bloomberg database develops environmental disclosure scores/ratings for many companies worldwide and over time using its own disclosure index. Therefore, it was more cost-effective for these studies to use Bloomberg proprietary environmental disclosure scores to enable a multicountry longitudinal analysis. In contrast, Hassan (2006), Hassan, Giorgioni, and Romilly (2006), and Hassan et al. (2009, 2011, 2012) aimed to investigate the determinants and consequences of corporate financial disclosure for companies listed on the Egyptian stock exchange, where there were no third-party measures of financial disclosure. Therefore, I had to manually develop a disclosure index for those companies using their annual reports to quantify some attributes of corporate financial disclosure.

Each method of developing a disclosure index has its advantages and disadvantages (Hassan & Marston, 2019). For example, third-party disclosure indices develop standardized disclosure scores or ratings for companies across countries and time (e.g., Arif et al., 2024; Nicolo' et al., 2024). This enables the reproducibility and comparability of results obtained from different studies that used these disclosure scores. However, these standardized disclosure scores or ratings may overlook institutional and legal differences between different countries and perhaps over time, which may render them invalid (i.e., they do not measure what they intend to measure) for the purpose of your study. In contrast, the validity of a self-constructed disclosure index is relatively higher because it is developed to fit the purpose of the study (e.g., Mnif & Gafsi, 2024; Nimer, Qader, & Darwish, 2024). However, a self-constructed disclosure index is a labor-intensive and time-consuming method that results in using small samples. Whether you are using third-party disclosure scores/ratings or have developed your own disclosure index, you should be aware of and transparent about their limitations. Also, whatever the method used to quantify corporate disclosure; researchers should remember that they are mere proxies of corporate disclosure that cannot be measured directly. Hence, evidence of the reliability and validity of your measure of disclosure should be provided to make valid inferences from your results.

Section Summary

- *Corporate disclosure is a deliberate release of information about a business. One way to measure it is to use the disclosure index method.*
- *There are two types of disclosure indices: third-party disclosure scores or ratings and self-developed disclosure indices.*
- *The choice between the two types of disclosure indices depends on the purpose and context of the study and data availability.*
- *Each type of disclosure index has its own advantages and disadvantages.*
- *Whatever the measure of disclosure you are using, you need to test its reliability and validity.*

Research Design

Because third-party disclosure scores or ratings can be obtained from proprietary databases or public sources, I will focus here on the research design for developing a self-constructed disclosure index, which I have used in my doctorate project (Hassan, 2006) as well as several published studies (e.g., Hassan, Giorgioni, & Romilly, 2006; Hassan et al., 2009, 2011, 2012). These studies *quantitatively* investigated the determinants and consequences of the *quantity and quality* of corporate *financial* disclosure, both *mandatory* and *voluntary*, for companies listed on the Egyptian stock exchange. To deliver on this purpose, I needed a quantitative method (research design) to measure (research purpose) certain attributes (the quantity and quality) of corporate financial disclosure, both mandatory and voluntary (nature and type of disclosure), that suits listed companies on the Egyptian stock exchange (research context).

To decide on the appropriate method to measure the quantity and quality of corporate financial disclosure (both mandatory and voluntary) in the Egyptian context, I evaluated whether the measures used in previous studies suit the purpose and context of my research project as well as whether the data required to construct these measures are available for companies listed on the Egyptian stock exchange. I found that some of the measures used in prior studies were not available in the Egyptian context, such as disclosure ratings from the Association for Investment Management and Research. Others were not possible to use for different reasons, such as the format and language of data to be used to develop a measure of corporate disclosure. For example, textual analysis was not suitable to use in this case because annual reports of listed companies on the Egyptian stock exchange were only available as scanned copies and in the Arabic language. Available software to conduct textual analysis at the time could not process scanned copies or documents in Arabic. Thus, after careful consideration of potential measures or methods used in the literature to quantify attributes of financial disclosure, whether mandatory or voluntary, the disclosure index method proved to be the most suitable research instrument in this context.

Corporate disclosure can be mandatory or voluntary. *Mandatory* disclosure refers to the information that companies are required to disclose by regulations or laws. *Voluntary* disclosure is any information a company chooses to disclose beyond the compulsory one. The choice between mandatory and voluntary disclosure will be guided by the research purpose. For example, studies that investigate the benefits of corporate disclosure usually focus on voluntary disclosure. This is because companies tend to release more information voluntarily if the benefits of releasing this information exceed its costs. My research project focused on corporate financial disclosure whether mandatory or voluntary. This is due to the lack of effective enforcement mechanisms for listed companies on the Egyptian stock exchange at the time, which meant that noncompliance with mandatory or compulsory disclosure was the norm. This, in turn, meant that there would be variability in the level of compliance with mandatory disclosure among listed companies, which enabled an analysis of this type of disclosure. Therefore, I considered both types of disclosure for my research project. This is also important because the nature and type of information disclosure might determine the disclosure medium you need to consider. For example, the main medium of financial disclosure, both mandatory and voluntary, is corporate annual reports.

You also need to consider the attributes of disclosure that you want to measure, such as quantity, quality, tone, timing, complexity, and prominence. This is so because the attribute of disclosure has its bearing on the suitable method to measure disclosure. For example, although sentiment analysis is usually used to measure the tone of disclosure, a disclosure index method is usually used to measure the quantity and quality of disclosure (Hassan & Marston, 2019).

I also had to consider which disclosure medium or mediums I needed to investigate to develop my measure of corporate disclosure. Such a choice was guided by a review of prior studies as well as considering the purpose and context of the study. Prior studies showed that annual reports are commonly used to investigate various attributes of corporate financial disclosure. For example, Shohaieb (1990) investigated whether corporate annual reports have great influence in decision making by seeking out the views of eight groups of users and preparers of financial reporting in Egypt. He found that annual reports ranked first among different sources of information. In addition, corporate annual reports were the main formal medium of financial reporting by listed companies, which, to some extent, suggested the availability of the required data for a large sample of companies. Therefore, I decided to measure the quantity and quality of financial information, both mandatory and voluntary, disclosed in corporate annual reports for listed companies on the Egyptian stock exchange.

Section Summary

- *To develop a self-constructed disclosure index, you need to make an informed decision based on a review of relevant prior studies.*
- *You should consider the purpose of the study to identify the nature of information disclosure (financial or nonfinancial), the type of disclosure (mandatory, voluntary, or both) and the attributes of disclosure (quantity, quality, tone, etc.) to be investigated.*
- *You should consider your research design, whether it is quantitative or qualitative, to decide on the relevant measure of disclosure to be used.*

- *You should consider the context of the study to check data availability and the medium or mediums of information disclosure you are going to use, such as annual reports, sustainability reports, etc.*

Research Practicalities

The most important practical issue to consider when measuring corporate disclosure is the availability of data, whether it is in the form of third-party measures of disclosure or the raw data you intend to use to develop your own measure of disclosure. For example, in the Egyptian context, even though I decided to use financial information contained in the annual reports of companies listed on the Egyptian stock exchange to develop my own disclosure index, I still encountered difficulties in obtaining historical annual reports for my research sample. This is so because at the time, Egypt, like many other developing countries, did not have an easy-to-access depository of annual reports for listed companies.

You also need to consider the time, effort, and money you will spend in constructing your own disclosure index. A clear and realistic timetable for your study would keep you focused and motivated. You also need to consider whether the data you will need to develop a disclosure index is freely available and manageable. In the case of my research about the Egyptian market, I had to pay for such data. I also had to complement the data obtained from the Capital Market Authority (CMA) with financial reports published in newspapers to increase the size of my sample. A pilot testing of data availability and accessibility earlier on in your study is highly recommended.

Another practical issue to consider is research ethics. Regardless of your chosen method of measuring corporate disclosure, you must maintain research integrity. This means that you must be honest, rigorous, and transparent in conducting your study and reporting the outcomes. If your research involves human subjects, such as interviewing experts to obtain their views on the usefulness of items of information disclosure, you need to obtain ex ante approval from the research ethics committee at your institution and/or other relevant parties.

Section Summary

- *Consider data availability and accessibility when developing your measure of corporate disclosure.*

- *Also consider the costs involved in developing your measure of corporate disclosure in terms of time, effort, and money needed.*
- *You must maintain research integrity whatever the method you are using to measure corporate disclosure.*

Method in Action

In this section I explain what a disclosure index is, potential variations in a disclosure index, how to develop a disclosure index, and how to test its reliability and validity to use your measure of disclosure in empirical studies.

What Is a Disclosure Index?

A *disclosure index* is a systematic quantification of information released in one or more mediums of disclosure according to selected criteria and indicators (Hassan & Marston, 2019). It is typically used to quantify the extent or quality of corporate disclosure or both.

A disclosure index might vary from one study to another based on (1) the degree of the researcher's involvement in constructing the index; (2) the nature and type of information disclosure, the number of items of information to be included in the index, and the medium of disclosure considered; (3) the measurement approach; and (4) the range of industries/countries covered by the index.

The degree of the researcher's involvement in constructing a disclosure index varies from full involvement to no involvement at all. Full involvement means that the researcher controls the entire process of constructing a disclosure index, from selecting the scope of the index and related criteria and indicators to scoring the selected items of information. No involvement means that the researcher depends on disclosure scores/ratings available from prior studies, professional organizations (e.g., the Center for International Financial Analysis and Research), academic institutions (e.g., the Joint Society of Management Accountants of Canada/University of Quebec and Montreal disclosure scores), or data vendors (e.g., Bloomberg, Eikon Refinitiv, and Standard and Poor's). Between these two extremes, various degrees of researcher involvement are observed in literature. Using third-party disclosure scores/ratings enables direct comparisons with prior studies, but it could be less valid for the purpose of your study. Self-constructed disclosure indices demonstrate higher validity, but they are usually laborious and time-consuming.

Disclosure indices vary in the number of items (from 11 to a few hundred), the nature of items of information (e.g., financial, governance, environmental, and social), and the type of disclosure (e.g., mandatory, voluntary, or both) depending on the research purpose and design and data availability. They cover information reported in one or more mediums of disclosure, such as corporate annual reports, interim reports, sustainability reports, and companies' websites. A disclosure index also could be country based, for example, self-constructed disclosure indices, or multicountry, for example, when relying on third-party disclosure scores from data vendors such as Bloomberg and Refinitiv Eikon. They also could be industry specific or multi-industry.

Items of information included in the disclosure index could be weighted or unweighted. Weights could be obtained by seeking the views of experts regarding the relative importance or usefulness of various items of information. Alternatively, researchers could develop their own weights depending on whether the information is quantitative or qualitative or using some existing framework for information quality. Whatever the approach used to identify the weights of different items of information, it tends to be subjective. The unweighted approach gives equal weight to each item in the list of items of information according to its existence.

In brief, there is no universal disclosure index in the literature because construction of such an index is markedly dependent on the research purpose, design, and context.

Process of Constructing a Disclosure Index

To illustrate the process of developing a self-constructed disclosure index, I will refer to an index I had personally developed for my doctorate project (Hassan, 2006) and also used in several published papers (e.g., Hassan, Giorgioni, & Romilly 2006; Hassan et al., 2009, 2011, 2012) to examine the determinants and consequences of the quality and quantity of corporate mandatory and voluntary financial disclosures.

The first step in developing a self-constructed disclosure index is to understand the purpose, design, and context of your study to identify the type, nature, and attributes of corporate disclosure as well as the mediums of disclosure that will deliver on the research purpose and design, as demonstrated earlier in the section about research design.

Identify Disclosure Criteria and Indicators

The volume of information that could be released by a company in a single medium of disclosure is huge. Hence, you need to develop a set of criteria to select items of information to be incorporated into your disclosure index. You need to document each criterion you have used to reach your final list of items of disclosure (indicators).

To do so, you need to review the relevant literature (i.e., academic, professional, standards, and regulations) to select an initial list of items of information to be incorporated in the index considering your research purpose and context. Also, top audit firms such as Deloitte and PricewaterhouseCoopers have developed disclosure checklists that could be useful when you are developing your initial list of items of information. In addition, this initial list could be linked to the information needs of relevant stakeholders by investigating their views using a survey.

Then the initial list of items of information could be enhanced by considering companies' actual disclosure practices. The refinement process of the list of items of information could go back and forth to ensure that your final list of items of information considers what you intend to capture.

For example, to study the determinants and consequences of mandatory and voluntary financial disclosure in the Egyptian context, I developed my initial list of items of information from two sources: the checklist for the disclosure and transparency developed by the CMA and the Center for International Financial Analysis and Research's (1995) checklist. These two checklists were thought to be relevant to the purpose and context of the study because the first one considered mandatory financial disclosure of listed companies in the Egyptian stock exchange, whereas the second one overlapped with it and provided extra items of information that could be considered voluntary. This process led to the inclusion of 115 items of information in the initial list: 70 items from the CMA's checklist and 45 items from the Center for International Financial Analysis and Research's checklist.

This initial list of items of information was then subject to a lengthy refinement process. First, the initial list of items of information was subject to a survey to seek out the views of financial analysts regarding the usefulness of these items of information for making investment decisions in the Egyptian context. Second, the list was further refined based on companies' actual disclosure practices, which was a back-and-forth process.

Once you have your final list of items of information to be incorporated in your disclosure index and you have documented your rationale for deciding on this list, you need to develop the criterion or criteria to be used in coding each item of information (or indicator). This is to ensure systematic coding of these items of information to all companies included in your research sample. For example, assume that I am developing a disclosure index for environmental disclosure for U.K. listed companies using sustainability reports. One of my items of information is "green building policy." The criterion to code whether this indicator is disclosed or not would be yes if the firm has taken measures to use environmental technology and/or environmental principles in the design and construction of its buildings and no if no such efforts are explicitly revealed in its sustainability report (Hassan, Romilly, & Khadaroo, 2023). Thus, a criterion of coding is a very clear description of how you code each item of information.

Developing Disclosure Scores

This step is about assigning a score for each item of information as a preliminary process to calculate the disclosure index for a company at one point in time. A critical issue here is whether to use weight or not. Studies interested in the quantity (quality) of disclosure use unweighted (weighted) disclosure indices.

In unweighted disclosure indices, you code whether the item of information is disclosed by the company or not, whereas weighted disclosure indices assign weights to different items of information either by the researcher or by relevant stakeholders through a survey. This is so because different items of information could be perceived as having different levels of importance for decision-making purposes. Self-weighted indices require clear scoring criteria to establish the minimum and maximum disclosure requirements and relative scores.

For my study, I was interested in measuring both the quantity and quality of financial disclosure. Hence, both weighted and unweighted indices were developed. The weighted index was developed by seeking the views of a sample of Egyptian financial analysts on my list of disclosures.

Then, to aggregate the scores of the individual items of information to an overall disclosure score for a company, I used arithmetic mean. This accounts for the nonapplicable items of information. You also can normalize the score across industries for meaningful comparisons.

Reliability and Validity Assessment

Because a self-constructed disclosure index is a research instrument to measure a theoretical concept that cannot be measured directly, it is necessary to assess whether this measure is a reliable and valid proxy of disclosure.

Reliability Assessment

Reliability concerns the ability of a measurement instrument to reproduce consistent results on repeated trials (Carmines & Zeller, 1991). In terms of a disclosure index, for example, companies that received the highest disclosure scores on a first measurement trial using a disclosure index tended to be among the companies receiving the highest disclosure scores on repeated trials using the same disclosure index. The same will be true for the entire sample of companies whose disclosures are being measured via the same index.

There are three common forms of reliability: test-retest, intercoder reliability, and internal consistency (Carmines & Zeller, 1991). The test-retest measure determines the stability of the results obtained from a measurement instrument over time. For example, you might develop the disclosure index for your sample at one point in time, and then, after a short period of time, you recode a small sample using the same disclosure criteria and indicators. The correlation between the scores yielded in the two rounds provides evidence on the stability of the results obtained from your research instrument over time (Weber, 1990). The higher the correlation coefficient, the higher the stability of the instrument used. However, a test-retest measure might not be particularly relevant to manual coding, as is the case for a self-constructed disclosure index, due to economic factors in terms of time, money, and effort consumed in repeated trials.

Two coders or more can use the same disclosure criteria and indicators to develop disclosure scores for a sample of companies; then they might discuss their coding and resolve any inconsistencies found. The correlation between their scores can be used to assess intercoder reliability (Weber, 1990). The higher the correlation coefficient obtained, the higher the reliability of the measurement instrument. Although this test could provide a better estimation of reliability than the former one, it is obvious that it needs more than one coder to run the test.

The third form of reliability is internal consistency, which is considered an excellent technique for assessing the reliability of a measurement instrument (Carmines & Zeller, 1991). Litwin (1995, p. 21) described *internal consistency* as "an indicator of how well the different items measure the same issue. This is important because a group of items that purports to measure one variable should indeed be clearly focused on that variable." The most popular test for internal consistency is Cronbach's alpha, which measures interitem correlation. It can take a value from zero to one. The higher the coefficient alpha obtained, the higher the internal consistency of the measurement instrument. For example, I used Cronbach's alpha to test the reliability of the aggregate index (including both mandatory and voluntary financial information) as well as the separate indices (mandatory and voluntary disclosure indices), which yielded values ranged from 0.77 to 0.85 and provided evidence on the internal consistency of the different indices I had developed.

Validity Assessment

Validity is defined as "the extent to which any measuring instrument measures what it is intended to measure" (Carmines & Zeller, 1991, p. 17). There are three common types of validity: content validity, criterion validity, and construct validity.

Content validity is assessed through seeking subjective judgments from nonexperts (hence, some refer to it as *face validity*) or experts and professionals on how well the instrument measures what it is intended to measure. However, this type of validity is always seen as not sufficient to conclude the validity of a measure. I used this test in validating my self-constructed disclosure index by seeking the views of financial analysts about the usefulness of the items of information included in my disclosure index (Hassan, 2006).

Criterion validity is a measure of how well one instrument stacks up against another instrument or predictor (Litwin, 1995, p. 37). Criterion validity is assessed if there is a significant correlation between a measure and an external criterion. The higher the magnitude of the correlation coefficient, the more valid this instrument or measure is for this criterion. There are two types of criterion validity: concurrent validity and predictive validity. *Concurrent* validity concerns the correlation between a measure and the criterion at the same time, whereas the *predictive* validity concerns the correlation between a future criterion and the relevant measure. However, criterion validity is less likely to be used in assessing the validity of social science measures. The reason is that most social science measures represent theoretical concepts for which there are no known criterion variables with which to be compared (Carmines & Zeller, 1991).

In contrast, *construct validity* "has generalized applicability in the social sciences. It focuses on the extent to which a measure performs in accordance with theoretical expectations. Specifically, if the performance of the measure is consistent with theoretically derived expectations, then it is concluded that the measure is construct valid" (Carmines & Zeller, 1991, p. 27). Therefore, testing for the construct validity of a measure of disclosure requires a pattern of consistent findings with prior studies. Prior studies have examined the relationship between a measure of disclosure quantity or quality and several company characteristics, such as company size, listing/cross-listing, profitability, gearing, and others. Although the results for firm size and listing/cross-listing are generally consistent among prior studies, other variables yield mixed results. Therefore, a positive and significant correlation between a measure of disclosure and firm size and/or listing/cross-listing provides empirical evidence on the construct validity of the research instrument. For example, the correlation matrices in Hassan (2018) and Hassan and Romilly (2018) show a positive and significant association between their measure of corporate environmental disclosure and firm size, which proves the validity of the measure of disclosure used.

Section Summary

- *A disclosure index is a systematic quantification of information released in one or more mediums of disclosure according to selected criteria and indicators.*
- *There is no universally agreed disclosure index.*
- *Developing a disclosure index involves four steps: identifying the nature, type, attribute, and medium of disclosure to be investigated; identifying disclosure criteria and indicators; scoring items of information in the final list of disclosures; and calculating the disclosure score for each company in your research sample.*
- *Your measure of corporate disclosure intends to measure a construct that cannot be measured directly; hence, you need to provide evidence of its reliability and validity to make meaningful inferences from your findings.*

Practical Lessons Learned

Looking back, I find the disclosure index to be a very flexible research instrument, especially if it is self-constructed. It is adaptable to the research purpose in terms of the nature, type, and medium of disclosure to be investigated. It can accommodate a few items of information as well as many of them. It also can accommodate different scoring schemes whether weighted or unweighted. It provides standardized disclosure scores based on a clear identification of disclosure criteria and indicators. It is amenable to reliability and validity testing, which provides assurance that the measurement instrument is trustworthy, meaningful, and robust. This, in turn, enhances the quality and rigor of the findings it generates. I also think that it was good to pilot testing the coding scheme before full-scale implementation. However, manual coding was a back-and-forth process to continuously refine the disclosure index, which was laborious and time-consuming. It took me about 6 months to develop the disclosure measurement of a sample of 272 observations.

In addition, it was difficult and costly to obtain the relevant data from the CMA, even though these data were from annual reports of listed companies, which should be, in theory, publicly available. Also, these data were hand collected by staff at the CMA and were not screened for errors. Hence, the data used for constructing the disclosure index might not have been totally clean or complete. For example, there was a possibility of errors in handling listed companies' annual reports, such as missing some pages in the scan process. Hence, I suggest that those who conduct future research should consider pilot testing the availability and accessibility of data earlier in the process. Furthermore, seeking experts' views on the usefulness of the items of financial information included in the disclosure index was a time- and effort-consuming process. However, it was good to seek their opinions to ensure the relevance and validity of items of information considered in the disclosure index. Hence, I suggest that future researchers should consider engaging relevant stakeholders in developing their list of items of information to ensure its relevance and practicality in delivering on the purpose of the research.

Thinking of what I would have done differently when I considered developing a disclosure index, I would address data challenges earlier in the process by exploring alternative sources of data and considering mitigation plans. In addition, although tests for the reliability and validity of my disclosure indices were satisfactory, I could have improved them further by revisiting the selection of items of information included in the index, weight scheme, and type of disclosure included (mandatory or voluntary).

In sum, the self-constructed disclosure index method is adaptable to the research purpose and context. However, it is not a limitation-free method. For example, whatever the scope of your self-constructed disclosure index, it cannot entirely capture the complex nature of corporate disclosure practices.

Section Summary

- *The flexibility of the self-constructed disclosure index method, the standardization of the process of generating disclosure scores, and the ability to test its reliability and validity are the main aspects that went well.*
- *The quality of the data used to construct the disclosure index and the subjectivity of the method are some of the limitations that should qualify any results obtained using this method.*
- *Lessons learned from this experience are to address data availability and accessibility issues earlier in the process and enhance the reliability and validity of the disclosure index.*
- *Advice to readers includes considering pilot testing for the availability and accessibility of the data required for your study and the initial list of information by engaging relevant stakeholders.*

Conclusion

Corporate disclosure is a construct that cannot be measured directly. As a positivist, I approach corporate disclosure as an objective and measurable phenomenon. Hence, I tried to quantitatively measure some attributes of corporate disclosure in my research using the disclosure index method, which is the second most used method in literature (Hassan & Marston, 2019).

There are generally two types of disclosure indices: third-party disclosure scores/ratings and self-constructed disclosure indices. I have used both methods in my research. Although third-party disclosure scores enable large-scale samples, the methodology used in developing these scores does not necessarily deliver on your own research purpose. For example, third-party disclosure scores might include both mandatory and voluntary disclosures, whereas you want to focus only on voluntary disclosure. Self-developed disclosure indices have the flexibility to deliver directly on your research purpose and design, but they are time- and effort-consuming, which results in using small samples. However, because self-constructed disclosure indices are laborious, I would consider third-party disclosure indices first if they were available and accessible. Finally, whether you are considering third-party disclosure scores or developing your own disclosure index, pilot testing the availability and accessibility of data is highly recommended. Also, having mitigating plans helps greatly if you encounter unexpected difficulties in obtaining data.

Discussion Questions

1. Explain the process of developing a self-constructed disclosure index.
2. Evaluate the adaptability of a self-constructed disclosure index method.
3. Assess the benefits and challenges associated with constructing a disclosure index.
4. Evaluate the applicability of various reliability and validity tests to your measure of disclosure.
5. Discuss the importance of documenting your criteria in developing a disclosure index.

Multiple-Choice Quiz Questions

1. What is the attribute of corporate disclosure that a disclosure index does *not* typically measure?
   A. The frequency of disclosure (CORRECT)
   B. The quality of disclosure
   C. The extent of disclosure
2. What is the purpose of developing a scoring system within a disclosure index?
   A. To create competition among companies
   B. To name and shame companies with poor disclosure practices
   C. To facilitate objective assessment and comparison of disclosure practices (CORRECT)
3. Which validity test is more applicable and trustworthy in the social sciences?
   A. Face validity test
   B. Concurrent validity test
   C. Construct validity test (CORRECT)
4. Which one of the following methods is *not* a reliability test?
   A. Test-retest
   B. Cronbach's alpha for internal consistency
   C. Experts' views (CORRECT)
5. What is the main drawback of a self-constructed disclosure index method?
   A. Objectivity in measuring attributes of corporate disclosure
   B. Adaptability to research purpose and context
   C. Being a laborious and time-consuming research tool (CORRECT)

Further Reading

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