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### Designing an integrated reporting guidance: an initiative to improve environmental and social reporting quality

*Diseño de una guía de informes integrados: una iniciativa para mejorar la calidad de los informes ambientales y sociales*

**A. PRATAMA**

ORCID: <http://orcid.org/0000-0001-9744-9792>  
[arie.pratama@fe.unpad.ac.id](mailto:arie.pratama@fe.unpad.ac.id)

*Faculty of Economics and Business, Universitas Padjadjaran*

**W. YADIATI**

ORCID: <http://orcid.org/0000-0002-5966-6451>  
[winwin.yadiati@unpad.ac.id](mailto:winwin.yadiati@unpad.ac.id)

*Faculty of Economics and Business, Universitas Padjadjaran*

**N. DEWI TANZIL**

ORCID: <http://orcid.org/0000-0002-0224-0273>  
[nanny.dewi16@unpad.ac.id](mailto:nanny.dewi16@unpad.ac.id)

*Faculty of Economics and Business, Universitas Padjadjaran*

**J. SUPRIJADI**

ORCID: <http://orcid.org/0000-0001-9562-8439>  
[jadi.suprijadi@unpad.ac.id](mailto:jadi.suprijadi@unpad.ac.id)

*Faculty of Mathematics and Natural Science,  
Universitas Padjadjaran*

#### ABSTRACT

Environment and social reporting need to be done in a comprehensively way. Integrated reporting provided opportunities to integrate social and environmental aspects with traditional financial reporting. This research tries to add a new improvement in scoring integrated reporting. A new scoring system consisted of 39 indicators derived from integrated reporting components. This system also provides scoring ranging from none to excellent. This scoring system might be used in the future by companies, auditors, or regulators in conjunction with assessing the quality of the integrated report.

**Keywords:** Auditor, Conjunction, Integrate, Reporting.

#### RESUMEN

El medio ambiente y los informes sociales deben realizarse de manera integral. Los informes integrados brindaron oportunidades para relacionar aspectos sociales y ambientales con los informes financieros tradicionales. Esta investigación trató de agregar una nueva mejora en la calificación de informes integrados. Un nuevo sistema de puntuación consistió en 39 indicadores derivados de componentes integrados de informes. Este sistema también proporciona puntajes que van desde ninguno hasta excelente. Este sistema de puntuación podría ser utilizado en el futuro por compañías, auditores o reguladores junto con la evaluación de la calidad del informe integrado.

**Palabras clave:** Auditor, Conjunción, Informes, Integración.

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## 1. INTRODUCTION

There is a significant change in how the stakeholder makes decisions. Stakeholders changed from capitalism to a socialism view (Freeman et al.: 2007), that is, a shifting concern from revenue-profit-dividend into sustainability-environmental-society (Adams & McNicholas: 2007; Freeman et al.: 2010). One of the concerns in reporting is a full and detail explanation of companies' business operations. Traditional form of reporting has several concerns: (1) It usually focused only on the financial aspect, none or few explanations on non-financial aspect (Craven & Marston: 1999; Gray: 2001; Montabon et al.: 2007; Dhaliwal et al.: 2011). (2) It usually focused on past performance, not provide a clear link between past, present, and future performance (Gray et al.: 1996; Adams: 2004, pp.731-757; Williams: 2008; Stent & Dowler: 2015); (3) It constructed using a "silo", rather than "integrated" paradigm, resulting in a thick "catalog" report. (DiPiazza & Eccles: 2002; Ho & Wong: 2003; Eccles & Krzus: 2010; Higgins et al.: 2014). The weakness of the current form of corporate reporting has to lead the International Integrated Reporting Committee to establish a new form of reporting, called Integrated reporting.

Since the introduction of the framework, many companies around the world implement the integrated reporting concept in their reporting. South Africa became the first country that required all listed companies to create integrated reporting. The implementation of integrated reporting was not without challenges. Executives and management of the companies perceived that the benefit of integrated reporting is not exceeding the implementation costs (Steyn: 2014, pp.476-503; Lodhia: 2015). Furthermore, Busco et al. (2013) found that executives and management were still reluctant to disclose the business model and risks faced by the company since it can be brought negative consequences for the company if users read the report. Eccles & Krsuz (2014) also added that many executives and management would not implement integrated reporting voluntarily. Currently, they were making the report simply because the rules told them to do so. These challenges, perhaps the reasons why integrated reporting, are still not implemented by many companies around the world. Dumay et al. (2017) showed that only 494 companies around the world already implement integrated reporting. Pistoni et al. (2018) found that the overall quality level of integrated reporting is still low, and the "content" of reporting scored very low. However, this is not the case for all companies. Companies in extractive and manufacturing industries have a better quality of reporting due to the nature of the business that might damage natural and social environment (Van Zyl: 2013; Serafeim: 2015; Stubbs et al.: 2015; Pratama: 2017).

Integrated reporting can also improve the current practice of environmental and social reporting. Investors currently demand to know how good a company manages the environment and social issues, but current reporting lack of integrated thinking, so the presentation of these issues only limited to monetary numbers (Hoang: 2018). The company needs to disclose risks associated with environmental and social issues and the long-term strategy to mitigate the risks; and integrated reporting framework can facilitate that information (Adams: 2017). Integrated reporting is also aligned with Sustainable development Goals (SDG) by providing media to report the company's activities related to 17 areas of SDG (Nunes et al.: 2016). Integrated reporting is also aligned with many reporting standards concerning environmental and social reporting, like Global Reporting Initiative (GRI) or Sustainability Accounting Standards (SAS) (Schooley & English: 2015; Adams: 2017; Global Reporting Initiative: 2018). Integrated reporting elements might be elaborated with reporting elements from GRI or SAS so that it can present more robust and comprehensive information about environmental and social issues.

Improvement of integrated reporting can be started by improving the quality of the disclosure of the contents (Solomon & Maroun: 2012; Atkins & Maroun: 2015). The integrated reporting framework stated that the framework is a principle-based. Consequently, judgments will be used heavily. Judgments can have a positive and negative impact. On the positive sides, judgments provide room for reporting flexibility, e.g., different companies might have a different core business process, and the companies might free to choose what aspect that needs to be disclosed most (Bennett et al.: 2006; Sunder: 2010; Ahmed et al.: 2013). On the

negative sides, judgments might lead to a company to select or modify the information so it can always represent a good or positive and hiding the negative side, or the "cherry-picking" practice. (Church et al.: 2008; Flower: 2015). Eccles et al. (2012) research stated that some precise, more ruled based integrated reporting tools needed to be established. Principle-based reporting will always feature the rule because the full principle-based would negatively affect the comparability of the report (Bradbury & Schröder: 2012; Bamber & McMeeking: 2016). Achim & Borlea (2015), suggested that one of the ruled based tools will be a device to assess the quality of the reporting or "scoring system".

The scoring system serves as a tool to achieve excellent quality in reporting, which can lead to better financial performance and quality of management (Churet et al.: 2014).

Previous researches have tried to formulate a scoring system, such as Barth (2017), Pistoni et al. (2018), but there is still room to improve the system, especially the dimension of scoring and the level of details. This research will be tried to elaborate on a better scoring system that provides an adequate level of details and explicit score attributes, so the users and preparers of integrated reporting might evaluate and analyze the integrated reporting easier. In the wake of the audit of integrated reporting, this article can also provide insight to the auditors regarding elements that necessary to be investigated. This article is a systematic literature review. First, this article would describe the reporting quality concept to get an understanding of the level of reporting the company should achieve that. Second, this article explained the development of the integrated reporting scoring system, by exploring the IIRC standards and relevant literature, and finally in the conclusions and recommendations, this article would provide several insights on how this integrated scoring system might improve the reporting quality, and provide several recommendations for implementation and for further research as well.

To fulfill the purpose of the reporting, the information presented in the report must fulfill qualitative characteristics (Scott: 2009; Yadiati: 2010; Kieso et al.: 2019). In financial reporting perspectives, there were fundamental (relevant and representational faithfulness) and enhancing qualities of reporting (comparability, timeliness, verifiability, and understandability) (van Beest et al.: 2009; IASB: 2010). In the information system perspectives, the quality can be achieved if the information fulfills these criteria: relevant, accurate, timeliness, and complete. Generally, a good quality report can be assessed from the information provided therein. Previous researches had proposed several proxies to indicate the quality of reporting, such as: earnings quality (Dechow et al.: 2010; Lin et al.: 2014), accruals quality (Arthur et al.: 2005), conservatism (Francis et al.: 2005), value relevance (Barth et al.: 2008). All the proxies used in this research were all the accounting-numbers and stated in financial terms. Financial and accounting numbers cannot be understood easily by the report's user, and the practice of creative accounting can undermine the quality of the report (Sherman & Young: 2016). Financial accounting numbers need high expertise and literacy, which not all of the report users have (McDaniel et al.: 2002).

Tang et al. (2016) proposed that the disclosure level can also measure reporting quality. Siagian et al. (2013) stated that the principle-based standard implementation requires heavy disclosures on the assumptions, considerations, and the choices of the judgments. Integrated reporting quality was best measured by the narrative descriptions, rather than used a symbol or syntax like in the financial reporting (Cosma et al.: 2018). Pistoni et al. (2018) proposed that integrated reporting quality should consist of 4 elements: (1) Background, which assess the motivation and preparation made by the company to construct such a report. (2) Content, which assess the information provided by the report; (3) Reliability and assurance, which assess the verifiability and whether there is an audit or review of such information; (4) Form, which assess the outlines, page layout, and editing of the report. From all these elements, content is the main issue. Wild & Van Staden (2013) reported that the investor still not feel any benefit of integrated reporting because the company still not following the content, as instructed by the IIRC framework. Haller & van Staden (2014) also mentioned that the IIRC framework placed an importance on the link between 6 types of capital employed and the outcomes of each capital employed, or the value-added. Adams (2013) and Hughen et al. (2014) also

agreed that the content of the integrated reporting would reduce asymmetric information, and the disclosures of the content will be the main focus of the company's analyst.

In the aspect of environmental and social reporting, Wong (2011) described the qualitative characteristics of such reporting must include: relevance, clarity, free from bias, comprehensiveness, timeliness, and comparability. Integrated reporting can accommodate these qualitative characteristics by setting a framework that consists of elements and guiding principles. IIRC stated that a full set of integrated reporting must have 9 components, namely: (1) Organizational overview and external environment, (2) Governance, (3) Business model, (4) Risks and opportunities (5) Strategy and resource allocation, (6) Performance, (7) Outlook, (8) Basis of preparation and presentation and in doing so, takes account of, (9) General reporting guidance. There are several guiding principles that must be adhere when prepared integrated reporting, namely: (1) Strategic focus and future orientation, (2) Connectivity of information, (3) Stakeholder relationships, (4)Materiality, (5) Conciseness, (6) Reliability and completeness (7) Consistency and comparability. The complete set of the framework would be practical to prevent impression management by companies, in which companies tend to promote only good environmental and social news and conceal bad news (Diouf & Boiral: 2017, pp.643-667). Al Farooque & Ahulu (2017) also stated that industry needs robust guidelines to deliver quality reporting, robust guidelines including the integrated framework for social, environmental, and economic inputs and performances.

## 2. METHODS

Disclosure of information is compulsory to reduce information asymmetry to enable users of the report made a better judgment (Beyer et al.: 2010). However, much research about disclosure only measures the disclosure on the one side, either the perceived importance of disclosure (details) or the extent of the disclosure (index-based) (Robbins & Austin: 1986). Many research about disclosure use disclosure index, in which the researcher will prepare a disclosure checklist consists of many items to disclose, and the disclosure level will be determined by the number of items disclosed divided by total items to disclosed (Cormier et al.: 2005; Brammer et al.: 2008; Pavlopoulos et al.: 2017). The disclosure level measured by disclosure index is simple and can be automated by using an automated machine or software but can hide the true nature of the disclosure (Beyer et al.: 2010; Berger: 2011). Marston & Shrives (1991) suggested that the researcher needs to look into a more qualitative aspect of the disclosure. They argue that the disclosure index tends to treat all the disclosure components as equal. In reality, there will be a different priority or importance level of information for investor decision making (Urquiza et al.: 2009).

On the other hand, disclosure based on the details will provide more detail and accurate assessment of the quality because the measurement expanded from "exist or not exist", to "bad or good" (Cheung et al.: 2010). The details can be provided by assigning numbers indicating "bad", "adequate", "good", etc. However, the weakness of this measurement is the substantial subjectivity of the assessor. The scoring sheet or matrix need to be produced to serve as a guideline for the assessor to reduce the subjectivity. Healy & Palepu (2001) stated that disclosure checking based on the details required sufficient knowledge in the field of content analysis. The reliability can also be increased by assigning two or more assessors to assess the disclosure quality so that the results can be compared and analyzed. Current research concerning integrated reporting quality was still limited by using the disclosure index. As far as the researcher knows, none of this research uses a scoring based on the quality of the information disclosed. The researcher proposed to measure the quality of integrated reporting based on the IIRC framework.

The first element, organizational overview, and external environment serves as an introduction for users to gain more understanding about the principal activities of the company, and how the activities were affected by (1) the internal strengths and weaknesses, and (2) the external opportunities and threats (Xue et al.: 2008; Filatotchev & Nakajima: 2010). In the internal environment aspect, many readers of the report will base their

decision on the first impressions of the company (Chen et al.: 2009). A first impression is a form of business communication, and the objectives of the communication are to "seduce" investors to read more pages of the particular report (Parhankangas & Ehrlich: 2013). Illustrations in forms of tables, numbers, and graphs are also contributed in explaining the long narrative story, into an informative and exciting story (Briscoe: 1995; Guffey & Loewy: 2010; Bovee & Thill: 2010). Completeness of the information was also pivotal for a reader so that they can access the level of competitiveness. In the marketing context, the understanding of the macro external environment (such as: political, social, economic, etc) and micro external environment (such as: five forces model) can form a basis for a clear assessment of the competitiveness and economic sustainability of the company (Forman & Hunt: 2005; Ingenbleek: 2007). There are 8 indicators (20,51%) for this element, which were taken directly from IIRC's standard. The focus in assessment for this element is whether the reader of the reports has sufficient and complete information about the environment in which it is operated. The significant percentage showed the implementation of the "first impressions", this element must appease the investors, and serves as a foundation.

The second element, governance, serves as an "ensuring mechanism" that the internal and external environment was equipped with complete monitoring and supervision mechanisms, and it secures from any possibilities of inefficient or ineffective acts (Salvioni & Bosetti: 2006; Kachouri & Jarboui: 2017). Readers usually want to understand two things from governance: (1) structure and (2) mechanism (Brennan & Solomon: 2008). Readers also want to assess whether those charged with governance were able to implement the proper actions to maintain the governance (Bozec & Dia: 2015), and how the governance clearly contributed to the improvement of the business (Cremers & Nair: 2005; De Haes & Van Grembergen: 2008). The importance of governance was significantly increased in the era of information technology. The more channel or media to report, and linkage between capital – process – value is the main content of such a governance report (Kolk & Pinkse: 2010; Hrebicek et al.: 2011). The matrices provide 7 points (17,95%) about the governance, and as the principle of the governance, the assessment will be based on the accountability and transparency of the information, and the linkage between the environment – governance – and process.

The third element, the business model, serves as a "main picture" of the company's value creation. The business model is a general representation of the companies' process of delivering products or services (Osterwalder & Pigneur: 2010). The traditional business model usually consists of 3 things: (1) Input, which is a resources used to deliver a final product or service; (2) Process, which is a combination between resource and activity to convert that resource into final product; and (3) Output, which is a product or service (Chesbrough: 2010; Teece: 2010; Thompson & MacMillan: 2010, pp.291-307). The business model is usually described slowly in the report since the business model is providing information concerning companies' main activities, including any risks, resources, regulations, and performance expectations (Demil & Lecocq: 2010). The contemporary business model places a significant emphasis on innovation and outcomes (Zott et al.: 2011). Innovation can be a signal for significant business improvement, and the innovation might have future positive or negative outcomes (Bocken et al.: 2014). There are seven indicators of business model, and together with previous elements, there are 22 indicators, representing 56,41% of all the indicators. This condition showed us that the main emphasis of well-integrated reporting is whether the company able to present comprehensive business activities, along with its monitoring mechanism and any external and internal factors that might affect the activities (Morros: 2016; Velte & Stawinoga: 2016).

The fourth element, risks and opportunities, only contain two indicators, as per IIRC standards. The main emphasis is the descriptions of the risks and any relevant actions to cover or mitigate the risks, or in other words, risk management (Linsley & Shrives: 2006). Risk reporting was usually provided due to a specific mandatory requirement like BASEL or Enterprise Risk Management (ERM) (Dobler: 2008). Therefore, in some industries like banking or technology, this element is well represented. Naturally, risks were a concern since, in the era of traditional reporting, therefore, to avoid high political costs, the company must present the information to the investors (Miihkinen: 2012). The corporate governance sections were also discussing the

risk management (Elshandidy & Neri: 2015), so it explained why the disclosure requirement in this component was low.

The fifth element, strategy and resource allocation describe the (1) strategic objectives, including the target outcomes in different period; (2) strategy to achieve those objectives; and (3) resource to support the implementation of the strategy. There are four indicators set by IIRC to measure these elements. Naturally, strategy and objectives were established by the companies, and it is typical for disclosing it on various media. The main emphasis of reporting strategy is to analyze whether the resource was adequately allocated in order to pursue the strategy (Venkatesan & Kumar: 2004). Regarding the period, most of the companies emphasize their outcomes on the long-term objectives, since strategy naturally deals with long term issues (Yip: 2004, pp.17-24). The long-term objectives must be derived to form medium and short term, so the company has a clear direction to pursue (Brauer: 2013).

The sixth element, performance, is regarded to be a “sole” objective of the reporting. Performance reporting is considered a mechanism to eliminate agency problems, by asking the agent to report their accountability of resource utilization to the shareholders (Franco-Santos et al.: 2007; Nudurupati et al.: 2011). Performance report was usually about past financial performance only, but the current form of reporting also demanded a non-financial performance with present and future orientation (Bernardi & Stark: 2015). The traditional report also tends to emphasize positive results and limited to satisfy shareholder needs (Sierra-Garcia et al.: 2013). The new integrated reporting informs both positive and negative outcomes and also not only to shareholders but also to all relevant stakeholders (Melloni et al.: 2017).

The seventh element, outlook, is generally a mechanism to provide the reader with a forecast of the future situation. There are three indicators to describe this element. Generally, outlook information more focused on the external environment’s risk and opportunity, the effects of the environment to the business, and how the company’s activities to prevent the risks or gaining the opportunities (Chase Jr: 2014). Implementation of information technology, like the utilization of big data and data analytics, might bolster the forecasting (Duan & Xiong: 2015). Digital tools might be disclosed and featured heavily to promote the forecasting and predicting the future of the business.

The eighth elements, the basis for presentation and reporting, have generally required the company to present the standards or regulations related to the global companies reporting (Khadaroo: 2005). The usual reporting standard that disclosed now is accounting standards, but many jurisdictions also provided regulations to disclose environmental and social aspects, and also regarding aspects of customer safety and satisfaction (Boedker et al.: 2008). In the era of complexity, there is also some necessity to disclosed risk management activities to prevent adverse outcomes. There are four indicators in this element.

### 3. RESULTS

Table 1 showed the matrices proposed for scoring integrated reporting. The indicators were constructed from elements of integrated reporting. There are eight elements of integrated reporting, and the framework provides an explanation of the content of each element. To provide a detailed assessment, the researcher divides the eight elements into 39 indicators. The researcher also provides five types of score, as provided in Table 1.

Indicators	Score				
	4 (Excellent)	3 (Good)	2 (Sufficient)	1 (Poor)	0 (None)
<i>Element 1: Organizational overview and the external environment</i>					
1.1 Organization's culture, ethics, and value	The report contains all of the following information: 1. Vision 2. Mission	The report contains only four of the five information below: 1. Vision 2. Mission	The report contains only three of the five information below: 1. Vision 2. Mission	The report contains only two of the five information below: 1. Vision 2. Mission	There are no displayed information

Indicators	Score				
	4 (Excellent)	3 (Good)	2 (Sufficient)	1 (Poor)	0 (None)
	3. Culture 4. Organizational Value 5. Ethics	3. Culture 4. Organizational Value 5. Ethics	3. Culture 4. Organizational Value 5. Ethics	3. Culture 4. Organizational Value 5. Ethics	
1.2 Organization's ownership and operating structure	The report contains organizational and ownership structure figures. There is an explanation about three of the three following information: 1. Educational background 2. Work experience 3. Job title	The report contains organizational and ownership structure figures. There is an explanation about two of the three following information: 1. Educational background 2. Work experience 3. Job title	The report contains organizational and ownership structure figures. There is an explanation about one of the three following information: 1. Educational background 2. Work experience 3. Job title	The report contains organizational and ownership structure figure, but there is no explanation at all	There are no displayed information
1.3 Organization's principal activities and markets	There is main activities or the company's main market information; explanations are given in the form of long narratives and other visual patterns (tables, graphs, illustrations, etc.)	There is main activities or the company's main market information; explanations are given in the form of long narratives (narrative length more than half pages of the report)	There is main activities or the company's main market information; explanations are given in the form of short narratives (narrative length is not more than half pages of the report)	There is main activities or the company's main market information only	There are no displayed information
1.4 Organization's competitive landscape and market positioning	There is market competition and company product information. There is a threat factor analysis for all of the following five factors : 1. competitors, 2. customer, 3. supplier, 4. substitution products 5. new company	There is market competition and company product information. There is four threat factor analysis of the following five factors : 1. competitors, 2. customer, 3. supplier, 4. substitution products 5. new company	There is market competition and company product information. There is a threat factor analysis maximum the following three factors : 1. competitors, 2. customer, 3. supplier, 4. substitution products 5. new company	There are market competition and company products information but does not explicitly mention threat factors	There are no displayed information
1.5 Organization's value chain position.	There are the company's value chain, the company's position description information.	<i>There is no score 3 for this section</i>	There are company's value chain information, but there is no company's position description	<i>There is no score 1 for this section</i>	There are no displayed information
1.6 Key quantitative information	Quantitative information in the form of financial and nonfinancial performance, which includes at least three of the following four things: 1. Customers aspects 2. Human resources aspects 3. Operational aspects 4. Institutional aspects	Quantitative information in the form of financial and nonfinancial performance, which includes at least two of the following four things: 1. Customers aspects 2. Human resources aspects 3. Operational aspects 4. Institutional aspects	Quantitative information in the form of financial and nonfinancial performance, which includes at least one of the following four things: 1. Customers aspects 2. Human resources aspects 3. Operational aspects 4. Institutional aspects	Quantitative information is only the information that shows financial performance	There are no displayed information

Indicators	Score				
	4 (Excellent)	3 (Good)	2 (Sufficient)	1 (Poor)	0 (None)
1.7 The highlight of significant key quantitative information changes from prior periods.	Presenting year to year changes for financial and non-financial performance, followed by a long narrative explanation (narrative length more than half pages of the report)	Presenting year to year changes for financial and non-financial performance, followed by a short narrative explanation (narrative length is not more than half pages of the report)	Presenting year to year changes for financial and non-financial performance, but not followed by an explanation	Presenting year to year changes for financial performance only, but not followed by an explanation	There are no displayed information
1.8 Significant factors affecting the external environment and the organization's response.	There are significant factors generated externally with organization response toward those at least four out of five following components: 1. Economy 2. Social 3. Politics 4. Law 5. Technology	There are significant factors generated externally with organization response toward those at least three out of five following components: 1. Economy 2. Social 3. Politics 4. Law 5. Technology	There are significant factors generated externally with organization response toward those at least two out of five following components: 1. Economy 2. Social 3. Politics 4. Law 5. Technology	There are significant factors generated externally with organization response toward those at least one out of five following components: 1. Economy 2. Social 3. Politics 4. Law 5. Technology	There are no displayed information
<i>Element 2: Governance</i>					
2.1 The organization's leadership structure	There is an explanation of the job position and description, and the regulation regarding governance is stated.	<i>There is no score 3 for this section</i>	There is an explanation of the job position, but there is no explanation about the job description and the regulation regarding governance is not stated	<i>There is no score 1 for this section</i>	There are no displayed information
2.2 Specific processes used to make strategic decisions and to establish and monitor the culture of the organization	There is an explanation about the governance board's role and working steps or plans  There are all risk acceptance information and mechanisms to resolve integrity and ethical issues.	There is an explanation about the governance board's role and working steps or plans.  There are one risk acceptance information and mechanisms to resolve integrity and ethical issues.	There is an explanation about the governance board's role and working steps or plans.  There are no risk acceptance information and/or mechanisms to resolve integrity and ethical issues.	There is an explanation about the governance board's role, but there are no working steps or plans.  There are no risk acceptance information and/or mechanisms to resolve integrity and ethical issues.	There are no displayed information
2.3 Particular actions those charged with governance have taken to influence and monitor the strategic direction of the organization and its approach to	There is an action's description with a detailed explanation (person in charge, results/impact, etc.)	<i>There is no score 3 for this section</i>	There is an action's description, but there is no detailed narrative (person in charge, results/impact, etc.)	<i>There is no score 1 for this section</i>	There are no displayed information

Indicators	Score				
	4 (Excellent)	3 (Good)	2 (Sufficient)	1 (Poor)	0 (None)
risk management.					
2.4 How the organization's culture, ethics, and values are reflected in its use of and effects on the capitals, including its relationships with key stakeholders.	There are evidence of the culture, ethics, and organizational value implementation, there is a long narrative explanation (narrative length of more than half pages of the report) and the impact to the company's graph	There are evidence of the culture, ethics, and organizational value implementation, there is a long narrative explanation (narrative length of more than half pages of the report) about the impact to the company	There are evidence of the culture, ethics, and organizational value implementation, there is a brief narrative explanation (narrative length not more than half pages of the report) about the impact on the company	There are evidence of the culture, ethics, and organizational value implementation, there is no explanation about the impact on the company	There are no displayed information
2.5 Whether the organization is implementing governance practices that exceed legal requirements	There are governance practices that use national or international benchmarking information; there is a clear, descriptive explanation	<i>There is no score 3 for this section</i>	There are governance practices that use national or international benchmarking information, but there is no explanation	<i>There is no score 1 for this section</i>	There are no displayed information
2.6 The responsibility those charged with governance take for promoting and enabling innovation	There is long narrative ( narrative length more than half pages of the report) regarding the manager responsibilities	<i>There is no score 3 for this section</i>	There is a short narrative ( narrative length is not more than half pages of the report) regarding the manager responsibilities	<i>There is no score 1 for this section</i>	There are no displayed information
2.7 How remuneration and incentives are linked to value creation in the short, medium, and long-term, including how they are linked to the organization's use of and effects on the capitals.	There are employee remuneration, incentives and the relations between employee's remuneration and incentives information towards value creation or the impact toward capitals	There are employee remuneration, incentives, and the relations between employee's remuneration and incentives information towards one of the value creation or the impact toward capitals.	There are employee remuneration and incentives, but there is no information towards value creation and the impact toward capitals	There is only remuneration and incentives rate information	There are no displayed information
<i>Element 3: Business model</i>					
3.1 Inputs	There is information about inputs used in goods and services production and sale process with a complete description of all inputs used	<i>There is no score 3 for this section</i>	There is information about inputs used in goods and services production and sale process with a brief description of all inputs used	<i>There is no score 1 for this section</i>	There are no displayed information
3.2 How the organization differentiates itself in the marketplace and the extent to which the business	There is information about services type or additional items with a clear description	<i>There is no score 3 for this section</i>	There is information about services type or additional items but not described clearly	<i>There is no score 1 for this section</i>	There are no displayed information

Indicators	Score				
	4 (Excellent)	3 (Good)	2 (Sufficient)	1 (Poor)	0 (None)
model relies on revenue generation after the initial point of sale					
3.3 How the organization approaches the need to innovate	There is a framework or innovation instruction done by the company with the result description or impacts of existing innovations.	<i>There is no score 3 for this section</i>	There is a framework or innovation instruction done by the company, but there is no or few given description	<i>There is no score 1 for this section</i>	There are no displayed information
3.4 How the business model has been designed to adapt to change	There is a clear description of the environment changes	<i>There is no score 3 for this section</i>	There is a brief description of the business model changes	<i>There is no score 1 for this section</i>	There are no displayed information
3.5 Output	There is information about the output produced from goods or services production and sale with a complete description of all produced output	<i>There is no score 3 for this section</i>	There is information about the output produced from goods or services production and sale with a brief description of the overall produced output	<i>There is no score 1 for this section</i>	There are no displayed information
3.6 Internal and or external outcomes	There are internal and external impacts with long narratives (narrative length more than half pages of the report) on each impact	There are internal and external impacts with short narratives (narrative length is not more than half pages of the report) on each impact	There are internal and external impacts with no explanation	There are internal and external impacts with no detailed explanation	There are no displayed information
3.7 Positive or negative outcomes	There are positive and negative impacts with short narratives (narrative length is not more than half pages of the report) on each impact	There are positive and negative impacts types with short narratives (narrative length is not more than half pages of the report) on each impact	There are internal and external impacts types with no detailed explanation	There are only internal or external impacts types with no detailed explanation	There are no displayed information
<i>Element 4: Risks and Opportunities</i>					
4.1 Identifies the key risks and opportunities that are specific to the organization	There are risks and opportunities with long narratives (narrative length more than half pages of the report) on each impact	There are risks and opportunities with brief narratives (narrative length is not more than half pages of the report) on each impact	There are risks and opportunities with no detailed explanation	There are one of risks and opportunities with no detailed explanation	There are no displayed information
4.2 Analysis of the continued availability, quality, and affordability of, relevant capitals in the short, medium and long-term	There are three analyzes consists of all three aspects ( availability, quality, and affordability)  The orientation including all terms ( short, medium, and long-term)	<i>There is no score 3 for this section</i>	There are only two out of three analyzes consists of all three aspects ( availability, quality, and affordability)  The orientation including maximum two of three terms ( short, medium, and long-term)	There are only one out of three analyzes consists of all three aspects ( availability, quality, and affordability)  The orientation including a maximum one of three terms ( short, medium, and long-term)	There are no displayed information

Indicators	Score				
	4 (Excellent)	3 (Good)	2 (Sufficient)	1 (Poor)	0 (None)
<i>Element 5: Strategy and resource allocation</i>					
5.1 The organization's short, medium and long-term strategic objectives	There is information on the organization's strategic objectives in three aspects: 1. Short term 2. Medium-term 3. Long-term	There is information on the organization's strategic objectives in two out of three aspects : 1. Short term 2. Medium-term 3. Long-term	There is information on the organization's strategic objectives in one out of three aspects : 1. Short term 2. Medium-term 3. Long-term	There is information on the organization's strategic objectives, but there is no definite time dimension	There are no displayed information
5.2 The strategies it has in place or intends to implement, to achieve those strategic objectives	There are strategies, correctly specified per organizational strategic objectives	There are strategies, generally specified per time dimension	There is a strategy, but not specified per purpose or a general strategy	The strategy only in the form of vision or mission	There are no displayed information
5.3 The resource allocation plans it has to implement its strategy	There are detailed financial and nonfinancial resources with a clear description	There are detailed financial and nonfinancial resources with a brief description	There are only financial or nonfinancial resources details	<i>There is no score 1 for this section</i>	There are no displayed information
5.4 How it will measure achievements and target outcomes for the short, medium and long-term	There is information about performance measurement and organizational targets in three aspects: 1. Short term 2. Medium-term 3. Long-term	There is information about performance measurement and organizational targets in two out of three aspects: 1. Short term 2. Medium-term 3. Long-term	There is information about performance measurement and organizational targets in one out of three aspects: 1. Short term 2. Medium-term 3. Long-term	There is information about performance measurement and targets, but there is no definite time dimension	There are no displayed information
<i>Element 6: Performance</i>					
6.1 Quantitative indicators concerning targets and risks and opportunities.	There are financial and non-financial indicators, followed by risks and probabilities analyzes all indicators	There are financial and non-financial indicators, followed by risks and probabilities analyzes one indicator	There are financial and non-financial indicators, without followed by risks and probabilities analyzes	There are only financial indicators, without followed by risks and probabilities analyzes	There are no displayed information
6.2 The organization's effects (both positive and negative) on the capitals.	There are positive and negative impacts with long narratives (narrative length of more than half pages of the report) on each impact	There are positive and negative impacts types long narratives (narrative length of more than half pages of the report) on each impact	There are internal and external impacts types with no detailed explanation	There are only internal and external impacts types with no detailed explanation	There are no displayed information
6.3 The state of key stakeholder relationships and how the organization has responded to key stakeholders' legitimate needs and interests.	There are detailed stakeholders; there is a complete explanation of response needs for all stakeholders	There are detailed stakeholders; there is a complete explanation of response needs only for some stakeholders	There are detailed stakeholders, but there is no explanation of response needs only for stakeholders	<i>There is no score 1 for this section</i>	There are no displayed information
6.4 The linkages between past and current performance, and between	There is an explanation for the relations between previous and prior performance and the	<i>There is no score 3 for this section</i>	There is an explanation for one of two conditions; previous and prior performance and the	<i>There is no score 1 for this section</i>	There are no displayed information

Indicators	Score				
	4 (Excellent)	3 (Good)	2 (Sufficient)	1 (Poor)	0 (None)
current performance and the organization's outlook.	prior and future performance.		prior and future performance.		
<i>Element 7: Outlook</i>					
7.1 The organization's expectations about the external environment the organization is likely to face in the short, medium and long-term	There is information about organizational expectation towards the external environment in three aspects : 1. Short term 2. Medium-term 3. Long-term	There is information about organizational expectation towards the external environment in two out of three aspects : 1. Short term 2. Medium-term 3. Long-term	There is information about organizational expectation towards the external environment in one out of three aspects : 1. Short term 2. Medium-term 3. Long-term	There is information about organizational expectation towards the external environment, but there is no clear time dimension	There are no displayed information
7.2 How the organization's expectations about the external environment the organization is likely to face in the short, medium, and long-term will affect the organization.	There is information about organizational expectation towards the external environment in three aspects : 1. Short term 2. Medium-term 3. Long-term	There is information about organizational expectation towards the external environment in two out of three aspects : 1. Short term 2. Medium-term 3. Long-term	There is information about organizational expectation towards the external environment in one out of three aspects : 1. Short term 2. Medium-term 3. Long-term	There is information about organizational expectation towards the external environment, but there is no clear time dimension	There are no displayed information
7.3 How the organization is currently equipped to respond to the critical challenges and uncertainties that are likely to arise.	There is information about resources to deal with uncertainty; information is delivered with long narratives (narrative length more than half pages of the report)	<i>There is no score 3 for this section</i>	There is information about resources to deal with uncertainty; information is delivered with short narratives (narrative length is not more than half pages of the report)	<i>There is no score 1 for this section</i>	There are no displayed information
<i>Element 8: The basis for preparation and presentation</i>					
8.1 A summary of the organization's materiality determination process	There is the following information: (1) A brief description of the process used to identify relevant matters, evaluate their importance, and narrow them down to material matters (2) Identification of the role of those charged with governance and key personnel in the identification and prioritization of material matter.	<i>There is no score 3 for this section</i>	There are at least one of the two following pieces of information: (1) A brief description of the process used to identify relevant matters, evaluate their importance, and narrow them down to material matters (2) Identification of the role of those charged with governance and key personnel in the identification and prioritization of material matter.	<i>There is no score 1 for this section</i>	There are no displayed information

Indicators	Score				
	4 (Excellent)	3 (Good)	2 (Sufficient)	1 (Poor)	0 (None)
8.2 A description of the reporting boundary and how it has been determined	There is the following information: (1) The financial reporting entity (2) Risks, opportunities, and outcomes attributable to or associated with other entities /stakeholders beyond the financial reporting entity that has a significant effect on the ability of the financial reporting entity to create value.	<i>There is no score 3 for this section</i>	There are at least one of the two following pieces of information: (1) The financial reporting entity (2) Risks, opportunities, and outcomes attributable to or associated with other entities /stakeholders beyond the financial reporting entity that has a significant effect on the ability of the financial reporting entity to create value.	<i>There is no score 1 for this section</i>	There are no displayed information
8.3 A summary of the significant frameworks and methods used to quantify or evaluate material matters	There is the following information: (1) A summary of the significant frameworks and (2) methods used to quantify or evaluate material matters	<i>There is no score 3 for this section</i>	There are at least one of two following pieces of information: (1) A summary of the significant frameworks and (2) methods used to quantify or evaluate material matters	<i>There is no score 1 for this section</i>	There are no displayed information
8.4 standards used for compiling financial information, a company-defined formula for measuring customer satisfaction, or an industry-based framework for evaluating risk.	There is standard information used for all aspects: 1. Financial aspects 2. Customer satisfaction aspects 3. Risk management aspects	There are two of three standard information is used for all aspects: 1. Financial aspects 2. Customer satisfaction aspects 3. Risk management aspects	There are one of three standard information is used for all aspects: 1. Financial aspects 2. Customer satisfaction aspects 3. Risk management aspects	<i>There is no score 1 for this section</i>	There are no displayed information

#### 4. CONCLUSIONS

Integrated reporting quality assessment needs to be done to ensure that the purpose of the integrated reporting is achieved. The matrix for integrated reporting scoring is an initiative that can be of the benefit to many parties. For the integrated report's issuer, the matrices can be used as a guide to preparing the best quality integrated report. The issuer might want to look at the first criteria in each of the 39 indicators, to ensure that the excellent integrated report will be produced. This matrix might also be useful for auditor's professions. The matrices can direct the companies to create the report using a similar trait and manner and may overcome the difficulties of auditing the integrated reporting (Oprisor: 2015). Regulators might use this matrix when it decides to enact the integrated reporting rules in their respective countries.

However, the development of integrated reporting scoring needs to be maintained, and in the future, many considerations may take into account. For example, future research might propose the specific designations, and it is score range (such as A for Excellent, etc.) to reflect the quality of the integrated reporting. The future

researcher might also consider putting weights in each of the indicators. Although the integrated reporting framework stated that all the elements have the same priority and importance, the regulations and investor demand might be a consideration to add the weights to the indicators. Furthermore, finally, future research might also re-improve the matrices that being proposed in this article, e.g., added the indicators, expanding the score range and criteria, etc. so the integrated reporting in the future will be a very useful tool to assess the company performance and provide the investor, the accountability that they need.

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### **BIODATA**

**ARIE PRATAMA:** Arie is an accounting lecturer in the Department of Accounting, Faculty of Economics and Business, Universitas Padjadjaran, Indonesia. Currently, he is pursuing a doctoral degree in Doctoral Program in Accounting, Department of Accounting, Faculty of Economics and Business, Universitas Padjadjaran, Indonesia. His research interests are financial accounting, corporate reporting, public sector accounting, taxation, and accounting education.

**WINWIN YADIATI:** is a financial accounting professor in the Department of Accounting, Faculty of Economics and Business, Universitas Padjadjaran, Indonesia. Her research interests are financial accounting and corporate reporting. She was a Head of Department of Accounting, Faculty of Economics and Business, Universitas Padjadjaran, Indonesia, from the year 2013 – 2016.

**NANNY DEWI TANZIL:** Nanny is a financial accounting and managerial finance associate professor in the Department of Accounting, Faculty of Economics and Business, Universitas Padjadjaran, Indonesia. Her research interests are financial accounting, financial management, and corporate reporting. Currently, she is Head of Undergraduate Program, Department of Accounting, Faculty of Economics and Business, Universitas Padjadjaran, Indonesia.

**JADI SUPRIJADI:** Jadi is a statistics associate professor in the Department of Statistics, Faculty of Mathematics and Natural Science, Universitas Padjadjaran, Indonesia. His research interests are structural equation modeling application in social sciences and business.