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Applicability of Integrated Reporting in Higher Education Institutions: A Comparative Analysis of Integrated Reports Published by Higher Education Institutions in the World

Entegre Raporlamanın Yükseköğretim Kurumlarında Uygulanabilirliği: Dünyadaki Yükseköğretim Kurumları Tarafından Yayınlanan Entegre Raporların Karşılaştırmalı Analizi

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Özet

Bu makalenin amacı, dünya genelinde yükseköğretim kurumları tarafından yayınlanmış entegre raporların karşılaştırılmalı olarak incelenmesi, yayınlanmış entegre raporların (IR) içerik öğeleri, sermaye öğeleri, çalışma modeli, paydaş analizi, değer yaratma modeli ve kurumların entegre raporlamada kendilerine özgü yaklaşımlarının karşılaştırmalı olarak ortaya konulmasıdır. International Integrated Reporting Council'in (IIRC) IR rehberinde ver alan ilkelere uyum, içerik unsurlarının eğilimi ve kapsamının incelenmesi amacıyla dünya genelinde 2015–2019 yılları arasında entegre rapor yayınlayan 8 üniversiteye ait entegre raporlar incelenmiştir. Açıklamaların analizini içeren ve vaka analizi olarak dizayn edilmiş nitel bir yaklaşım kullanan bu çalışma, gelişmekte olan piyasa ortamından kanıt sağlayarak literatüre katkıda bulunmaktadır. Vaka analizi yöntemi kullanılarak elde edilen bulgular ışığında entegre raporlamanın yükseköğretim kurumları için uygulanabilir olduğu sonucuna ulaşılmıştır. Henüz entegre rapor yayınlamamış olan üniversitelerin yıllık raporlarında entegre raporlama ilkelerine atıf yapıldığı, değer yaratma modeli ve iş modeline yer verildiği görülmüştür. Sürdürülebilirlik faaliyetleri, yükseköğretimde kalite çalışmaları ve kurumsal sosyal sorumluluk anlayışı çerçevesinde durum değerlendirildiğinde çalışmanın literatüre önemli bir katkı sağlayacağı düşünülmektedir. Dünya genelinde entegre raporlama yapan yükseköğretim kurumu sayısı ve raporlama dönemlerinin sınırlı olması geleceğe yönelik belirlenen yol haritalarının gerçekleşmesine ilişkin değerlendirme yapılması konusunda sınırlılık yaratmaktadır. Bulgular politika yapıcılarına entegre raporlamanın yaygınlaştırılması konusunda yol haritası niteliğindedir ve entegre raporlamaya yakın hisseden kurumlar için rehber niteliğindedir. Üniversitelerin faaliyetlerinin görünürlüğü açısından tüm paydaş gruplarına fayda sağlamaktadır. Bu çalışma, tüm dünyadaki yükseköğretim kurumlarının yayınladıkları entegre raporları inceleyen literatürdeki ilk ve tek çalışmadır. Sonuçlar yükseköğretim kurumlarında entegre düşünceye ilişkin gelişimi ve paradigma değişimini ortaya koymaktadır. Çalışma ayrıca IR'nin retorik, uygulama ve değer yaratma sürecindeki somut rolünü de ortaya koymaktadır.

Anahtar sözcükler: Değer yaratma, entegre raporlama, yükseköğretim kurumları.

Abstract

This article aims to comparatively examine the integrated reports (IRs) published by higher education institutions worldwide, and to reveal the content elements, capitals, operating model, stakeholder analysis, value creation model of these reports and the unique approaches of the institutions in integrated reporting. To examine their compliance with the principles in the IR guide of the International Integrated Reporting Council (IIRC), and to reveal the trend and scope of their content elements, the IRs published by eight universities from around the world between 2015 and 2019 were examined. Using a qualitative approach, which includes analysis of explanations and designed as case study analysis, this study contributes to the literature by providing evidence from the emerging market environment. In light of the findings using the case study analysis method, integrated reporting was concluded to be applicable for higher education institutions. Considering the current situation regarding sustainability activities, quality studies in higher education, and corporate social responsibility, the study is expected to make a significant contribution to the literature. The low number of higher education institutions publishing integrated reporting and the limited reporting periods at the global level restrict the analyses of the actual implementation of the roadmaps for the future. The findings serve as a roadmap for expanding integrated reporting to policymakers and serve as a guideline for organizations that plan to initiate their own integrated reporting. They provide all stakeholder groups with benefits in terms of making university activities visible. This study is the first and only study in the literature that examines the IRs published by higher education institutions all over the world. The results reveal the development and paradigm shift regarding integrated thinking in higher education institutions. The study also reveals the clear role of IR in the process of rhetoric, practice, and value creation.

Keywords: Higher education institutions, integrated reporting, value creation.

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ntegrated reporting, which is described by the International Integrated Reporting Council (IIRC) as a short and concise communication of the extent to which an organization's strategy, management, performance, and future expectations create value in the short-, medium- and long-run within the context of the external environment in which it is located, aims to increase the quality of the information provided to users, to bring a more holistic and efficient approach to corporate reporting, to strengthen the accountability and manageability elements of a wide range of capital (finance, produced, intellectual, human resources, social, relational and natural), and to encourage the value creation in the short-, medium- and long-run term (The International Integrated Reporting Framework [IIRF], 2013). Integrated reporting, which dates back to the sustainability reports that began to be applied voluntarily by businesses in the 1990s, is one of the issues that have been heavily discussed for the last five years. The Republic of South Africa is a pioneering country in integrated reporting. In the Republic of South Africa, which was the first country where integrated reporting was required, publicly-traded companies prepare their reports according to the guidelines of King III (Altınay, 2016).

The aim of this study is to discuss the applicability and value-addedness of integrated reporting, which is a contemporary approach in revealing the importance of sharing financial and non-financial information for all stakeholders defined as all social parties with whom the company is affiliated, affected by the activities of the company and affecting the company with its activities. The integrated reporting approach is one of the most effective approaches that may be made available to all stakeholders. A systematic approach to reporting, which includes financial and non-financial information, aims to bring about an integrated perspective for the future.

Conceptual Framework

Historical Development

The journey of integrated reporting in the world dates back to the transition of the Republic of South Africa to full democracy in 1994. Nelson Mandela has appointed Former Supreme Court judge Mervyn King to establish the King Committee that would conduct studies on corporate governance principles for encouraging transparency, equality, and information sharing to reduce the distrust towards the institutions and companies of the Republic of South Africa. The organizations were encouraged to disclose their non-financial information in the first King's Report published in 1994, whereas the studies have taken one step further, demanding that companies include all relevant stakeholders in the process and expand their responsibilities to cover social and

environmental issues as well as financial results with the King II Report published in 2002. Following the publication of the report, the Johannesburg Stock Exchange required the listed companies to verbally describe the extent to which they comply with the principles of the King II Report in their annual reports. The financial crisis of 2008 revealed that conventional reports were insufficient in terms of responding to risks despite their length and complexity. Thereupon, the King III report was published in 2009 in order to mitigate the distrust among investors, businesses, and society. Following the King III Report, as of 2010, the Johannesburg Stock Exchange required all companies listed on the stock exchange to produce an integrated report, or else, to explain the reasons why they failed to do so. Thus, the Republic of South Africa became the first country to make integrated reporting mandatory for the companies listed on the stock exchange. Following the Republic of South Africa, many countries such as Denmark, Portugal, and France have begun to take steps towards integrated reporting by requiring companies listed on the stock exchange to disclose certain non-financial data in their financial reports. The acceleration of global studies on integrated reporting began with the establishment of the International Integrated Reporting Council in 2010. Many organizations such as the UN Global Compact, GRI, the World Bank, the International Federation of Accountants (IFAC), the World Economic Forum (WEF), as well as company representatives of such companies as HSBC, Microsoft, Nestlé, academics, and investors are also among the members of the IIRC. The IIRC explains its long-term vision as "a world where integrated reporting is used as the corporate reporting norm in the public and private sectors, and integrated thinking is applied in common corporate practices".

Since its establishment, the IIRC has set its mission to prepare an internationally accepted integrated reporting framework that would guide companies in their preparation of integrated reports. Based on this mission, the IIRC published its first discussion document as of 2011. The IIRC, which evaluates the comments and contributions from the private sector, public, civil society representatives, and academicians from all over the world, published the International Integrated Reporting Framework that was finalized as a result of those contributions in December 2013. Institutions that initiated integrated reporting consider this framework as a reference in their reporting process.

The Aim of Integrated Reporting

The integrated report, whose primary purpose is to explain the extent to which an organization can create value over time to financial capital providers, presents information regarding the resources and relationships which an organization uses and affects. Stakeholders are classified in integrated reporting, which prioritizes value creation and offers solutions with a strategic approach for the risks and threats that may arise in this process, and the information to be shared is placed in order of importance according to stakeholders' priority. Since the aim of this approach involves effective and efficient information sharing, the ranking based on the principle of materiality, as one of the integrated reporting guidelines, would contribute to value creation (Marşap, Demirel, & Altınay, 2020). Integrated Reporting Framework is an inclusive approach that supports the assembly of the key elements of corporate reporting. Thus, the integrated reporting framework is also in line with the fourth phase of intellectual capital research. It aims to explain intangible assets, internal and external ecosystems, and their interactions from a system approach perspective (IIRF, 2013).

An IR explains to providers of financial capital how an organization creates value over time. Since the IR is based on a principle approach, not a rule-based approach, it brings about steadily increasing improvements. This principle-based flexible structure allows different organizations to take into account their specific conditions and differences, whereas aiming to present the information needed by stakeholders in a flexible and disciplined format. It offers a more inclusive perspective on corporate governance and reporting. It aims to attain the world's most common and highest mindset as the corporate reporting norm. The IR has the following 7 principles for these purposes:

- Strategic focus and future orientation
- Connectivity of information
- Stakeholder relationship
- Materiality
- Conciseness

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- Reliability and completeness
- Consistency and comparability

Many institutions and organizations all over the world publish integrated reports. Nonetheless, despite the fact that 1400 universities operate in 92 countries around the world, only eight universities practice integrated reporting.

Integrated reporting consists of six primary elements such as intellectual capital, financial capital, human capital, relationship capital, manufacturing capital, and natural capital. The IR is a transparency and accountability instrument that allows increasing confidence in institutions. The integrated report, prepared with a holistic and future-oriented perspective, is a type of reporting that reveals the important issues of the strategies for the institution and stakeholders by asserting the value created for the institution and stakeholders, explaining the extent to which the strategies and goals are achieved. It provides information linked to the "Global Goals for Sustainable Development." Integrated reporting guidelines, consisting of strategic focus and future orientation, connectivity of information, stakeholder relationship, materiality, conciseness, reliability and completeness, and consistency and comparability, provide information about the content of the report as well as the extent to which the information is presented. The principles-based approach aims to maintain a balance between flexibility and order to generate an adequate level of comparability among the specific circumstances of different organizations. An IR has eight fundamentally interdependent and non-mutually exclusive content elements:

- Organizational overview and external environment
- Corporate governance
- Business model
- Risks and opportunities
- Strategic resource allocation
- Performance
- General outlook
- Basis of presentation

Eight content items are included in an integrated report, along with the questions about the items and responses to these questions (Marşap et al., 2020).

IR publishing by businesses operating in different sectors is of great importance in terms of comprehending the value created by the sectors, the strategic roadmap for the future, as well as transparency and accountability. It is also noteworthy that the IR offers organizations a more attractive and efficient way to tell their stories. The fact that universities are educating future generations renders the things they tell about themselves more valuable because universities conduct research studies, establish collaborations with industry, and have a mutual relationship with society. It has many direct and indirect impacts on economic development, efficiency, and productivity. In summary, universities create value in their activities and contribute to the value created by different segments of society (British Universities Finance Directors Group [BUFDG], 2016).

Contributions of integrated reporting to universities are as follows:

- The IR offers a chance to convey the extent to which the organization would create value in the short-, medium- and long-run on issues such as its strategy, governance, performance, and expectations to its external environment,
- Integrated reporting provides readability as well as guiding principles and content elements on which its framework

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focuses. IRs are designed to be understandable by the reader and pleasing to read. It makes use of tables, figures, and visuals in a clear, narrative manner to increase understandability, and is also fun to read as it attracts the reader's attention.

 It is different from financial reports that describe what has been done in the past. For example, unlike financial reports that usually focus on a one-year financial period, it indicates past and current performances but focuses on the future.

Related Literature

It is seen that the conceptual studies in the literature regarding integrated reporting tend to make efforts to constituting a conceptual basis for future studies. Upon examining the world literature, many studies on the IR are encountered, especially in 2018 and 2019. The number of studies on the applicability of integrated reporting in various sectors and/or different institutions and organizations is quite limited (**II** Table 1). Since the research question of this study involves investigating whether or not integrated reporting is applicable in higher education institutions, a literature review is conducted within a certain limitation. Conceptual studies are not included under the title of the literature review. As a result of the Turkish literature review regarding the research question of the study, no study conducted on the subject was found among the studies that could be obtained. In this regard, the study is expected to contribute to the literature. Reviewing the international literature reveals a large number of studies dealing with the applicability of sustainability reporting, although studies on integrated reporting in higher education institutions also exist. It would be appropriate to claim that the availability of studies on both reporting types in the literature strengthens the opinion that the discussion of the subject would make a significant contribution to the literature.

Method

Research Design

Seven research questions were formed in accordance with the aim of the study. Case study analysis, as one of the qualitative research methods, was selected to analyze the responses given to these research questions. One of the underlying reasons for this preference was that qualitative research methods provide the opportunity to present the events in their natural environment realistically and holistically by using qualitative data collection methods such as observation, interview, and document analysis. It was concluded to be appropriate for the study since it is an approach that emphasizes researching and understanding social facts with an understanding based on theorizing. Qualitative research aims to explain a situation in related links. It reveals the variables that affect an event itself. In this study, the importance of stakeholders for local governments and why integrated reporting, which aims to present financial and nonfinancial information to stakeholders, is crucial for local governments, was established by revealing the mutual relationship network among the concepts.

The research questions of the study consist of the following:

- Do the IRs published by higher education institutions comply with the guidelines and content items?
- Is there a value creation model/business model in the IRs published by higher education institutions?
- What are the focus issues in the IRs published by higher education institutions?
- Are there stakeholder groups and risk analysis in the IRs published by higher education institutions?
- What are the unique approaches of the institutions in the IRs published by the higher education institutions?
- What are the visibility activities for IRs published by higher education institutions?
- Are there awareness-raising activities pertinent to sustainable development goals, integrated thinking, and value creation?

Case study analysis and phenomenology as two qualitative research methods and critical research as a communication research method were used in the study. The environmental data and the data related to the process were collected by examining the documents.

The qualitative research processes were followed during the Research and the capital elements, the connection among the elements, value creation processes, IR guideline principles and content elements in the sample IRs published by higher education institutions were comparatively and comprehensively examined.

Results and Discussion

The first IR ever published by higher education institutions is the one published by the University of Stellenbosch in the Republic of South Africa in 2016. Stellenbosch University published IRs in 2016, 2017, 2018, and 2019. The University of Abertay and New Castle University published IRs in 2016, and the same universities continued to publish IRs in 2017, 2018, and 2019. London Metropolitan University and Edinburgh Universities also published IRs in 2016, 2017, 2018, and 2019. Salford University is another institution that published an IR in 2018 and 2019. Okayama University published an IR for 2019 in October 2020. In 2018, Yildız Technical University became the first and only higher education institution in Turkey that has ever issued an IR.



Table 1. Related literature.

Publication year	Author(s)	Aim	Result(s)
2020	lacuzzi, Garlatti, Fedele, & Lombrano	Explicated the integrated reporting and exchange process with the example of public universities in their studies on Udine University, Italy.	As a result of their study, they concluded that the integrated reporting approach was of great importance in conducting activities according to the strategic objectives and the requirements of the era.
2019	Adhikariparajul, Hassan, Fletcher, & Elamer	Investigated the trends in the content of the annual activity reports published by 135 higher education institutions and whether or not integrated thinking was included in those trends on integrated reporting in higher education institutions of the United Kingdom. In the study, higher education institution reports throughout 2014–2016 were analyzed with content analysis, and the trends in the reports were tried to be revealed.	As a result of the study, they concluded that universities began to adapt the integrated thinking approach to their activities.
2018	Brusca, Labrador, & Larran	Focused on the stakeholder approach, the consideration of sustainability as the core principle in strategic plans, the reflections of sustainability reporting on organizational changes, and the impact of sustainability reporting on achieving the three basic tasks of universities. Case studies and semi-structured interviews were conducted in the study, which examined voluntary reporting practices in innovative Spanish universities.	As a result of the study, it was concluded that universities, which published sustainability reports and integrated reports, had a significant impact on managerial processes, accountability, and successful practices related to the organization's strategic goals.
2018	Adams	Investigated the value of integrated thinking and reporting for the stakeholders of universities and the reflections of the United Nations Sustainability Goals. In the study, it is emphasized that reporting was of great importance in managerial relations and strategy development, as universities raise the leaders of the future	In the study, it was frequently emphasized that all 17 goals of sustainability were of great importance for universities.
2015	Veltri & Silvestri	Preferred a case study in South African public universities to examine the compatibility of the IR with the IIRC framework, the appearance of the main purpose of the IIRC framework in the reports, and the impact of the reports on stakeholders. It was emphasized that the method was suitable for the study.	The study concluded that the reports were formally compatible with the IIRC framework, but its meaning was not fully comprehended. The fact that the study was conducted in 2015 is thought to be effective in this finding.
2016	Gamage & Sciulli	Emphasized that universities are of key importance for sustainability in their study examining the sustainability reports of Australian Universities. The study was conducted with an exploratory research method. The study, in which reports of 7 universities were examined, concluded that sustainability studies at universities should be supported since sus- tainability activities affect many stakeholders. The discussion of the issue in terms of sustainability reporting began as of 2013 in the studies examined as part of a comprehensive literature review, and after 2016, the issue was handled with the integrated reporting dimension.	In studies where integrated reporting was handled specifically for higher education institutions, it is seen that the integrated reporting principles were formally followed, but integrated thinking has not been internalized yet. This situation is thought to stem from the integrated reporting approach being a fairly new approach. Since the framework for reporting has been determined, reporting becomes possible. Nevertheless, the evolution of conventional thought patterns and business models is of great importance for the establishment of integrated thinking in institutions. It seems that this is the hardest portion of the process.
2015	Romolini, Fissi, & Gori	Examined the reports of the universities that published sustainability reports in 2012 to draw attention to the applicability of sustainability reporting in universities. Reports from 20 universities were examined within the scope of the study. The report published by Kadir Has University in Turkey was also examined.	It was found that the reports complied with the Group on Social Reporting-GBS standards, but were insufficient in terms of the GRI Standards. The study concluded that the scores of universities remained at 50% below the scores of 50% the main elements of the GRI model such as environmental emission, energy, water, raw material usage, biodiversity, and social performance.



Table 2 presents the responses given to the following research questions: "Do the IRs published by higher education institutions comply with the integrated guideline principles and content items?" and "Is there a value creation model/business model in the IRs published by higher education institutions?"

The guideline principles determine the framework for the preparation of an integrated report. As integrated reporting has a principle-based approach instead of a rule-based approach, flexibility is provided to institutions and organizations that issue reports. Nonetheless, as the guidelines provide information about the content of the report and indicate the extent to which the information is presented, the report provides information about the organization's strategy and the extent to which it relates to the organization's ability to create value in the short-, medium- and long-run, its use and interaction of capitals, as well as the organization's value creation over time. An IR should provide information on the nature and quality of the relationships of the organization with its key stakeholders and indicate the extent to which the organization comprehends, takes into account, meets the legitimate needs and aspirations of the stakeholders, provides information on issues that significantly affect the organization's ability to create value in the short-, medium- and long-run. It would be appropriate to include all material matters, whether positive or negative, in a balanced and material error-free manner, and to be presented on a consistent basis over time and in a way that allows the organization to be compared with other organizations in terms of its ability to create value over time.

Examining Table 2, it is clear that in the IRs of Abertay and Stellenbosch Universities, the strategic plans are given under a separate heading along with the strategic objectives, whereas the IRs of the universities other than Abertay and Stellenbosch University include statements in the text regarding the strategic approach, which does not include strategic targets.

	Salford University- Manchester- England- Established in 1850	Abertay University- UK- Established in 1994	Stellenbosch University- South Africa- Established in 1864	Newcastle University- England- Established in 1963	London Metropolitan University- England- Established in 2002	Edinburgh University- England- Established in 1583	Yıldız Technical University- Turkey- Established in 1911	Okayama University- Japan- Established in 1670
Guideline principles								
Strategic focus and future orientation	Absent	Strategic plan is present	Strategic plan is present	Absent	Absent	Absent	Absent	Strategic plan is present
Connectivity of information	Present	Present	Present	Present	Present	Present	Present	Present
Stakeholder relationship	Present	Absent	Present	Present	Absent	Present	Present	Present
Materiality	Present	Present	Present	Present	Present	Present	Absent	Present
Conciseness	41 pages	64 pages	178 pages	100 pages	67 pages	104 pages	57 pages	56 pages
Reliability and completeness	Present	Present	Present	Present	Present	Present	Present	Present
Consistency and comparability	Limited expression is present	Limited expression is present	Limited expression is present	Limited expression is present	Limited expression is present	Limited expression is present	Limited expression is present	Limited expression is present
Content elements								
Organizational overview and external environment	Limited expression is present	Limited expression is present	Limited expression is present	Limited expression is present	Limited expression is present	Limited expression is present	Limited expression is present	Limited expression is present
Corporate governance	Present	Present	Present	Present	Present	Present	Present	Present
Business model	Present	Present	Present	Present	Present	Absent	Present	Present
Risks and opportunities	Present	Present	Present	Present	Present	Present	Present	Absent
Strategic resource allocation	Present	Present	Present	Present	Present	Present	Present	Present
Performance	Present	Present	Present	Present	Present	Present	Present	Present
General outlook	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant
Basis of presentation	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant
General reporting principles	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant

Table 2. Evaluation regarding the guidelines, content items and business model in integrated reports published by higher education institutions in the world.

Source: IRs published by higher education institutions.

Although somewhat superficial, the connectivity of information is established in the IRs of the universities examined within the scope of the study. Each IR presents a holistic view of the combination of factors that affect the organization's ability to create value over time, their interrelationships and dependencies among them. Examining the information given about the relations and communication channels established with the stakeholder in the published IRs, it can be observed that the stakeholder groups and communication channels to be used in the relations with the stakeholders are not presented in the IR of Abertay and London Metropolitan University. Stakeholder groups are presented in the reports of universities except for Abertay and London Metropolitan Universities (**T** Table 2).

The materiality principle aims to ensure that the organization can provide information on issues that significantly affect its ability to create value in the short-, medium- and long-run through the integrated report. Analyzing the IRs within the scope of the principle of materiality shows that all the reports can be read visually. However, a limited approach is adopted in revealing the short-, medium- and long-term value creation capabilities. In the IR of Yıldız Technical University, the short-, medium-, and long-term evaluation of the capability to create value is not included at all. The fact that an IR can be read and understood by all stakeholders is regulated by the principle of conciseness. The number of pages of each university report differs from each other. Although the principle-based approach allows the flexibility of the reporting institution and organization, the large number of pages makes it difficult for the stakeholders to evaluate the reports in detail. It is a requirement of the principle of reliability and completeness that all material elements, whether positive or negative, include balanced and material error-free information in an integrated report. Upon examining the IRs in terms of this principle, it is seen that the IRs of all higher education institutions are prepared in compliance with the principle. Considering the reports in terms of consistency and comparability, compliance with the principle was seen to be at a limited level. The principle involves presenting the information in an IR on a consistent basis over time and allowing it to be compared with other organizations in terms of the organization's ability to create value over time. The fact that integrated reporting is still a new approach causes the reporting organizations to fulfill this principle only partially.

An IR contains eight content items that are fundamentally linked and not mutually exclusive. The reports examined within the scope of the study were evaluated in terms of organizational overview and external environment, corporate governance, business model, risks and opportunities, strategic resource allocation, performance, general outlook, and basis of presentation.

Explanations regarding the organizational overview and external environment, the elements of what the organization does and under what conditions it operates, are limited in all the reports. Although there are comprehensive statements about what the organization does, uncertainties regarding the external environment cause limited explanations. Explanations regarding the ability of the organization's corporate governance structure to create value in the short-, medium- and long-run are available in all the integrated reports. Since all the examined universities have a deep-rooted past, the institutionalization process is completed, and the contributions of the institutional structure are easily transferred to the report. It is of great importance that the business models of the organizations are included in the report. All universities, except for Edinburgh University, presented their business models by schematizing them in their integrated reports. Risks and opportunities, and strategies on how to minimize risks are included in all reports in detail. Although the issue of resource allocation is mentioned, universities, which are public institutions, have limited responsibilities and limited strategic resource allocation. The difficulties and uncertainties that the organization may encounter while implementing its strategy and the potential impacts of these in terms of the business model and future performance are discussed, and it is striking that London Metropolitan University mainly deals with the issue financially. The performance to be considered in an IR includes not simply a financial, but a more holistic performance. The general outlook and presentation are compatible with the guidelines in all the examined reports. It was observed that reporting is practiced by taking into account the general reporting principles.

The response to the question "What are the focus issues in the IRs published by higher education institutions?" is given in Table 3. The information in this Table is obtained from the IRs of the universities examined within the scope of the study. The publication periods of IRs are 2016, 2017, 2018, and 2019. Since some of the focus topics are included in the IRs of Salford University, Abertay University, New Castle University, and London Metropolitan University for the periods 2016, 2017, 2018, and 2019, the focus issues that are present in the report without any change are shown in bold by combining the reporting periods.

Examining the focus issues in the IRs revealed that students and academics are the most important stakeholders of higher education institutions, so the relevant stakeholders focus on determining the focal issues. Industry collaboration is also included in the report as a prominent focal issue. Universityindustry collaboration has global importance in improving employment opportunities and expanding research and development activities. Access to quality education, as one of the sus-



Table 3. Focus issues in IRs published by higher education institutions in the world.

Higher education institutions	Integrated reporting years	Focus issues of the integrated report		
Salford University - Manchester - England	2019	 Industry collaboration Academic growth and diversification Research and knowledge exchange 		
	2018	 Industry collaboration Academic growth and diversification Student experience and outcomes Research and knowledge exchange Campus infrastructure 		
Abertay University -	2019	Choosing our own path		
England	2018	Recognizing and developing potential		
	2017	Expanding horizons		
	2016	Working in partnershipMaking our knowledge accessible		
Stellenbosch University - South Africa	2019	 Thriving university Transformative student experience Purposeful partnerships and inclusive networks Networked and collaborative teaching and learning Research for impact Employer of choice 		
	2018	 Broadening access (increasing access to new information markets, diversifying student and staff profiles) Sustaining our momentum of excellence (leading research institution position in Africa, maintaining student success rate) Enhancing our social impact Expanding internationalization Advancing systemic transformation Enhancing systemic sustainability Executing the campus renewal project Moving forward Monitoring on the way forward with our strategic management indicators 		
	2017	Broadening access Sustaining our momentum of excellence		
	2016	Broadening access Sustaining our momentum of excellence Enhancing our social impact		
Newcastle University - England	2018–2019	Education for lifeResearch for discovery and impactEngagement and placeGlobal		
	2017–2018	Education for lifeResearch for discovery and impact		
	2017–2018	Engagement and placeGlobal		
	2016–2017	 Perform high-quality research that is internationally recognized Provide a high-quality environment for students and staff Develop an innovation culture embedded throughout the University Further, develop our activities concerning corporate engagement Maximize/diversify research funding including opportunities via the Global Challenges Research Fund and Industrial Strategy Challenge Fund Raise the profile of our research outputs Continue preparations for the next REF 		



Table 3. *[Continued]* Focus issues in IRs published by higher education institutions in the world.

Higher education institutions	Integrated reporting years	Focus issues of the integrated report
London Metropolitan University - England (Not titled as 'integrated report')	2018–2019 2018 2018 2017 2016	 Starting with our people Focusing on student success Growing our research and impact Giving back to our city Managed growth and diversification Vibrant campuses and cutting-edge facilities Sustainable finance Our students Academic outputs Staff outputs Our staff Supporting our community Our facilities Environmental sustainability Financial sustainability Program to Improve Student Outcomes (PISO) The drive to improve employability through the embedding of work-related
		earning in our curriculum • One Campus, One Community (OCOC)
Edinburgh University - England (Not titled as 'integrated report')	2019 2018 2017 2017 2016	 Leadership in learning Leadership in research Our growth scale and ambition: sustainability Our people Collaboration with Industry Interaction in global scale Digital transformation and data Strategic issues Scale and ambition for growth Our people Interaction in global scale Collaboration with industry Interaction in global scale Collaboration with industry Digital transformation and data Strategic issues Scale and ambition for growth Our people Interaction in global scale Collaboration with industry Digital transformation and data Student experience Global impact Life-long community Social responsibility Partnership Equality and widening participation
Yıldız Technical University - Turkey	2018	 Qualified research and development Qualified education-training Sustainable responsible management Sustainable development
Okayama University - Japan	2019	 Sustainability Open innovation Stakeholdership, partnership Social impact Backcasting Human resources

Source: IRs published by higher education institutions.



tainable development goals, is one of the main issues that Stellenbosch University focuses on in each reporting period. Improving accessibility is also mentioned as a focus issue in the report. High-quality research and development are the main focal issues in all the reports.

The responses given to the question "Are there stakeholder groups and risk analysis in the IRs published by higher education institutions?" are presented in Table 4.

Stakeholder groups were shared by all universities, except for Abertay University, in the examined integrated reports. Abertay University defines its stakeholders as students, employees, partners, and large masses in the content of the report, but does not classify the stakeholder groups in a separate section in accordance with the elements that should be included in the integrated report. Since the concepts of integrated thinking and value creation are closely related to the process that has evolved from a shareholder approach to a stakeholder approach, it is of great importance that stakeholder groups are clearly identified in an IR. Risk areas are also determined concerning stakeholder groups and the value creation process. All universities first considered the resource generation potential and bureaucratic barriers in risk areas. Since they had high potentials to be directly affected by changes in public policy, this area is cited as an important risk area and it is seen that they could make limited explanations for the risk in the short-, medium- and longrun. The value creation process in institutions that were directly affected by changes in public policy and legislation was also significantly affected. Although stakeholder groups were included in the IR of Okayama University; although the university, which was established as a health institution in 1670 and maintained its activities as a university, continued to provide undergraduate and graduate education in the fields of engineering and administrative sciences, a summary of the health sector was made in the report. Moreover, it is noteworthy that risk factors were not specified in the report. It is crucial to state the elements with short-, medium- and long-term risk potentials and risk-related strategies in an IR.

In this regard, the report did not allow an evaluation of the risk elements. Nevertheless, there is a striking aspect of the IR of Okayama University that differs from the IRs of other universities. As the sustainable development goals were frequently shared in terms of visibility in the IR, the link between the sustainable development goals and each element included in the report was firmly established. Okayama University frequently placed its sustainable development goals on its corporate website and social media accounts, and prioritized visibility. Nonetheless, it is noteworthy that the visibility of sustainability goals was not included in the IRs of universities other than Okayama University. Although there was no sharing attempt regarding sustainability goals in the social media accounts of universities other than Okayama University, the sustainability goals were only shared under the headline of "About us" section of the corporate websites of universities. Evaluating this situation in terms of the responses given to research questions on universities' integrated thinking, value creation, visibility, and awareness activities regarding sustainable development goals, it can be concluded that universities have not yet generated a widespread impact on visibility and awareness activities.

Higher education institutions are organizations that have a large number of stakeholder groups due to the activities they perform. Furthermore, they keep different generations together by courtesy of their structures. Therefore, it is of great importance that they conduct activities toward the X, Y, and Z generations concurrently. They utilize several different communication channels (face-to-face, by mail, via electronic domain, and through social media accounts) to inform their stakeholders about their activities. The social media accounts and corporate websites of the organizations that publish the examined IRs are handled in terms of the number of followers and page visits. Whether or not they post anything on their corporate web pages and social media accounts regarding integrated thinking, value creation, sustainability, stakeholder approach, and integrated reporting was also investigated. For this purpose, the domains and sub-domains of the corporate websites of universities that publish IRs were reviewed via Websiteinformer. Alexa, an internet company that offers web measurement and SEO (Search Engine Optimization) tools belonging to the USA-based Amazon company, is an organization that lists all the sites on the internet based on a certain set of criteria. Alexa, which can be named as a system that measures both the country in which it is located and its rank all over the world by analyzing each of the websites in detail, has a strong database since it was established in 1996 dates far back. It is preferred as the primary instrument to obtain information on any website. Alexa performs some calculations based on the behaviors of people visiting the site.
Table 5 indicates the daily number of visitors, worldwide popularity, and reliability statistics of the domains and sub-domains of the universities' corporate websites.

Although the daily page visits of New Castle University are low, it is noteworthy that its worldwide popularity is higher than the other institutions in the study, which could be a reflection of its student clubs' popularity. Therefore, the IR of New Castle University was re-analyzed in terms of student unions and student clubs, and it was found that its stakeholder groups



Table 4. Stakeholder groups and risk areas.

Higher education institutions	Stakeholder groups	Risk areas
Salford University	Our students, residents, alumni, nationwide partners, and staff	 Pay and pension costs Government policy changes Industrial actions Retention, progression, and course quality Student recruitment
Abertay University	Staff, students, partners, and the wider community	 Failure to deliver outcome agreement expectations result in a reduction in SFC funding Change in Scottish Governance/SFC funding policy results in significant loss of income Failure to recruit international students Insufficient numbers of students progressing from partner institutions to Abertay degree Disruption to University operations arising from major incident, omission, failure, or external attack Increased competition for SFC resources leads to predatory attack from competitors Change averse/risk-averse culture prevents the delivery of key strategic objectives Failure to comply with legislation/change in legislation Damage to University's academic reputation Lack of alignment of systems to business needs Damage to University's academic reputation Portfolio and curriculum reform fail to meet student expectations and improve the student experience Failure of governance following an inability to recruit an appropriately qualified Chair of Court under the provisions of the HE Governance legislation
Stellenbosch University	Students, parents and sponsors of student, staff, government, industry, donors, research foundations, investors, and the community	 Implementation of the revised bursaries and loans model Harmful substance abuse as a risk for student wellness National Credit Amendment Bill Gender violence Sustainability of our blended learning academic delivery model Association with spinout companies Student fee regulation by government Student fee regulation by government Institutional compliance with laws, regulations, and supervisory/ regulatory requirements Sustainability of assets SU houses on experimental farms Radiation related incidents and regulatory compliance Inadequate cybersecurity and information integrity and compliance Copyright infringement on third-party platforms Exposure to building and mountain fires
Newcastle University	Students, alumni, the local community, colleagues, funders and regulators, partner organization	 Perceived value for money Impact of climate change Engagement and culture Impact of competition Brand and reputation Political environment
London Metropolitan University	Staff, students, partners, and the wider community	 Economic and political risks including Brexit and HE-related policy uncertainty Failure to recruit and retain students Increased operating costs via inflationary pressure Reputational risk management Failure to meet regulatory requirements

Table 4. [Continued] Stakeholder groups and risk areas.

Higher education institutions	Stakeholder groups	Risk areas
Edinburgh University	Students, saff, alumni, donors, partners	 Reputation Compliance Finance Research Education and student experience Knowledge exchange International development Major change activities Environment and social responsibility People and culture
Yıldız Teknik University	Students, academic staff, administrative staff, the business world, alumni, technopark, media, universities, public institutions, community, and NGOs	 Student experience Qualified research Qualified education-training Staff development Loss of accurate data Strategic development - management change Financial sustainability Physical and technological infrastructure Public policy and legislation
Okayama University	Students, alumni, staff, companies, public, foreign students, NGOs	Unspecified

Source: IRs published by higher education institutions.

did not include these elements in the report. The number of Facebook members obtained from the university's social media accounts is also relatively high compared to other organizations (I Table 6).

Examining the corporate web pages and social media accounts of the universities, it was discovered that none of them had attempted sharing on integrated reporting, value creation, and stakeholder approach. However, sharing on web pages and social media accounts would be appropriate to deliver the IR to the relevant parties and to spread the integrated thought.

Conclusion

Education is one of the most powerful tools for sustainable development and the importance of educational institutions in social transformation is commonly accepted as an indisputable fact.

Table 5. Corporate web page visitor statistics of higher education institutions performing integrated reporting.

	Daily pageviews	Worldwide popularity	Trustworthiness
Salford University	70,000	57,657	0.88
Abertay University	113,000	42,375	0.92
Stellenbosch University	74,279	No data	0.93
Newcastle University	6000	3,404,236	0.61
London Metropolitan University	17,000	85,687	0.89
Edinburgh University	151,172	No Data	0.93
Yıldız Technical Univesity	257,000	28,501	0.87
Okayama University	97,000	104,831	0.84

Source: Websiteinformer (Access date: January 31, 2020).

	Twitter	Instagram	Facebook
Salford University	51.5 K	14.8 M	120,000
Abertay University	26.2 K	3358	19,753
Stellenbosch University	68.7 K	17 B	124,252
Newcastle University	41.4 K	45.4 B	133,237
London Metropolitan University	19.8 K	8289	361,776
Edinburgh University	122.9 K	79.5 В	240,860
Yıldız Technical Univesity	47.6 K	41.4 B	61,613
Okayama University	6819	2235	5113

Table 6. Number of social media account followers of higher education institutions performing integrated reporting.

Source: Institutional social media accounts of universities (Access date: November 21, 2020)

The study concludes that integrated reporting is very crucial for higher education institutions and a value-added generating activity for stakeholders. It reveals that the preparation of an IR in the presence of both companies and other stakeholders would make a significant contribution to the establishment and implementation of an integrated thinking structure in organizations. Considering the concept of capital more comprehensively in the examined reports within the scope of the study, associating the data on environmental, social, and governance issues with financial data and including them in the report would contribute to integrated thinking. Providing holistic and comprehensive information on the activities and results of the institutions is of great importance for all stakeholders of the reporting organizations.

Higher education institutions often present financial and non-financial information concurrently in financial reports, but do not follow up on the visibility of the information presented in the digital domain. Reports prepared in compliance with regulatory principles are often perceived as boring by financial information users. These reports, which are not read completely by most people, do not provide enough information to stakeholders about the achievements of universities and the value they create.

Today, the institutional structure of universities, the value they create, and their messages to their stakeholders regarding sustainability have become much more important than ever before. Policies implemented to reduce public expenditures all over the world negatively affect the rate of benefiting from public investments in the activities of universities. Students who pay for university tuition are becoming more selective than ever, and since they have different expectations for higher education, they choose universities that they think would meet these expectations, which makes the competition between universities even fiercer.

To improve the IRs published by higher education institutions, it is more strategic and forward-focused to determine who the stakeholders of the institution are, and to reflect the effects of the organizations' value creation processes on the stakeholder groups in the short-, medium- and long-run, to include conceptual information, to mediate the disclosure of the organization's strategy. It would be an appropriate approach for reporting organizations and stakeholder groups to prepare them with an approach that would ensure the explanation of strategy, management, performance, and future goals with a completed, balanced and holistic perspective.

The Covid-19 pandemic, which affects the whole world, was not included in any of the IRs examined. Although the pandemic was not included in the reports as it came to the agenda after the reporting period, it is considered as an important deficiency that the education sector, as the main source of national and international student mobility and one of the leading global sectors, does not include the pandemic in the medium- and long-term risks encountered by higher education institutions. Since integrated thinking is an inclusive, forward-looking reporting type that aims to create value, reporting standard risks does not fit the nature of integrated thinking.

It is of great importance that higher education institutions, which play an important role in raising future generations to adopt the concept of integrated thinking, value creation, and sustainability by future generations, increase their visibility activities.



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