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THE COMPARABILITY OF NON-FINANCIAL INFORMATION IN INSURANCE COMPANIES

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Purpose: The paper aims to assess the comparability of non-financial information disclosed in the annual reports of insurance companies.
Design/methodology/approach: This study applies to the Polish insurance market. The reports of the following insurance companies have been evaluated: PZU, Ergo Hestia, and UNIQA. The methodology is based on the NiCE index of financial reporting quality assessment, though it's original. The authors have developed a method of evaluation suited to the specific nature of non-financial information. A set of six areas is prepared and a five-point Likert's scale is applied to assess how the criteria defined for these areas are fulfilled.
Findings: The comparability of non-financial information across insurance companies is a very difficult and subjective process. This is first of all due to the fact this information is not measurable and the structures of non-financial reporting by the particular companies are not formalised. The reports disclose some varied extents of details, not only for the particular undertakings, but even over years. This requires some systematic standards of non-financial reporting to be compiled and assessment indicators for the positions of insurance companies to be standardised in future.
Research limitations/implications Since the research sample was limited, the study should be treated as a pilot and its results as an introduction to further, more in-depth empirical research.
Social implications: Non-financial information relates to the realisation of sustainable development strategies, in particular, the ESG (Environment Social Governance) issues, and forms a major area of assessment of an economic undertaking's reliability. It's therefore important that it shows certain useful characteristics, in particular, comparability, especially important to decision-making processes. This study identifies some areas for improvement and thus contributes to the improvement and restricts the risk of the decision-making process in both insurance companies and organisations that constitute their social and economic environment.

Originality/value: This research extends the knowledge concerning the assessment of non-financial reporting quality and fills a gap in research into its comparability in insurance companies.

Keywords: insurance companies, non-financial information, ESG (Environment Social Governance) reporting, comparability of information.

Category of the paper: research paper.

1. Introduction

The comparability of information is expected to facilitate its utility and faithful representation of a business undertaking and its financial position. Information is considered more useful if it can be compared with other, similar information. The similarity of information relates to information arising from financial reporting by both various undertakings (comparability in space) and by a single undertaking compiled in different periods (comparability in time). Comparability is a most desirable feature of reliable reporting information, which also includes non-financial information, since it is part of the reporting systems of economic undertakings, including insurance companies. The comparability of non-financial information in insurance companies is important in the perspective of its utility as it provides foundations for a variety of assessments and managerial decisions, both operational, strategic, and investment. It should be noted, too, insurance companies are among public trust institutions, where the care for their image and financial situation is particularly important. The utility and especially the comparability of information is undoubtedly its essential feature whose presence helps to maintain the good image of a public trust institution, namely, an insurance company.

Insurance companies have been obliged to compile non-financial information covering environmental, social, and corporate governance issues since 01.01.2017. This arises from the provisions of the Directive 2014/95/EU concerning the disclosure of non-financial and diversity information by certain large undertakings and groups (Non-financial Reporting Directive, NFRD) and from the amended Accounting Act of 15 December 2016, which is adapted to that Directive. The Directive 2022/2464/EU with regard to corporate sustainability reporting (Corporate Sustainability Reporting Directive, CSRD) was accepted on 10 November 2022. It introduces some more detailed reporting requirements concerning the impact of economic undertakings on the environment, human rights, and society.

This study is therefore undertaken for the following reasons:

- The comparability of non-financial information in insurance companies is important in the perspective of its utility as it provides foundations for a variety of assessments and managerial decisions, both operational, strategic, and investment.

- The new ESG (Environmental Social Governance) regulations in connection with the European Green Deal – the Directive 2022/2464/EU with regard to corporate sustainability reporting (Corporate Sustainability Reporting Directive - CSRD), which changes the rules of reporting non-financial information.
- A research gap in respect of the comparability of insurance companies' non-financial information.

An assessment of the comparability of non-financial information disclosed by insurance companies in their annual reports is the purpose of this study.

The methodology is based on the NiCE index of financial reporting quality assessment, described by F. Beest and B. Geert (2009). Similar research has been conducted by Yurisandi, Puspitasari (2015) and Almehairi et al. (2021), among others. These evaluations have referred to financial information, thus the novelty value of this paper consists in adapting the methods applied to the evaluations of financial information to analysing the quality of non-financial information. This methodology is novel as it's suited to the unique nature of non-financial information. What's more, the earlier studies have not covered insurance companies.

In the first section of the paper, specialist literature on the comparability of non-financial information is reviewed; in the second part, the methodology is presented; the results of the authors' research are discussed in the third section, while these results are referred to similar research and conclusions are formulated in the final section.

This research extends the knowledge concerning the assessment of non-financial reporting quality and fills a gap in research into its comparability in insurance companies.

2. The comparability of non-financial information – literature review

The comparability of reporting information is an important qualitative characteristic of statements and reporting.

Its preponderance over other qualitative features of financial reporting has been stressed by, among others, Hope (2004), Riahi-Belkaoui (2004), Skinner (2005), Sunder (2007), Cole et al. (2010, 2011).

The principle of comparability is realised as (IAS 1 Presentation *of Financial Statements*):

1. comparability over time – the financials of a given organisation from different periods are compared,
2. comparability in space – the financials of different economic undertakings are compared as part of sectoral, national or international comparisons.

It should be pointed out the drive towards the comparability of reporting information for successive periods can't be seen as a ban on the introduction of new, improved solutions. An organisation may change its existing solutions insofar as it serves the purpose of a clear and reliable presentation of its position. Reasons for such a change must be identified then, their numerical impact on the financial result must be determined, and the comparability of financial statement for the year prior to the year of these changes must be assured. In effect of applying the comparability principle, the financial statement users must be informed about:

1. the accounting principles applied,
2. any changes of these principles,
3. any effects of such changes.

The literature review shows the following benefits can be identified of the realisation of the principle of reporting information comparability:

1. investors are able to identify and understand similarities and differences in financial statements - Chauhan, Kumar (2019),
2. a positive correlation with the precision and accuracy of managers' forecasts - Chen, Gong (2019),
3. the costs of obtaining financial information are reduced - De Franco, Kothari, Verdi (2011),
4. the uncertainty of assessment is reduced - Majeed, Chao (2022),
5. the level and quality of information disclosed are improved - Almehairi et al. (2021), Jibril (2019),
6. the asymmetry of information is reduced as the quality of financial statements is improved - Almehairi et al. (2021), Daske et al. (2008).

Non-financial information is part of the financial reporting system. Under the prevailing regulations (Article 49b of the amended Accounting Act dated 15 December 2016), it can be presented as a declaration of non-financial information or a separate statement on non-financial information from a single organisation or capital group, to be published at the website within 6 months of the balance closing date.

In line with Article 49b Section 2 of the Accounting Act, a non-financial information declaration should include a description of:

1. the business model of an organisation,
2. policies applied by an organisation with regard to social and labour risks, natural environment, respect for human rights, counteracting corruption, and of the results of these policies,
3. due diligence procedures,
4. major types of risks connected to an organisation's activities and the principles of their management.

As part of a financial statement, non-financial information should also exhibit utility, including comparability. Research in this respect commonly refers to:

- the quality of non-financial information – e.g., Szadziewska (2015), Krasodomska, Cho (2017),

- the standardisation of reporting - including Breijer, Orij (2022), Waniek-Michalak (2017), Krištofik et al. (2016),
- the impact of Corporate Social Responsibility actions on business image – for example, Axjonow et al. (2018),
- the impact of Corporate Social Responsibility actions on the financial results of reporting organisations – for instance, Crous et al. (2022), Lament, Bukowski (2022), Winman (2021).

Research into insurance companies' non-financial reporting, in particular, the quality and comparability of non-financial information, is not common, like the studies of insurers' accounting and its unique nature. Examples include Lament, Piątek (2023), Jonas (2020), Chmielowiec-Lewczuk (2018), Hołda, Staszel (2014), Karmańska et al. (2003). The literature review discovers the following assessments of non-financial information quality in insurance companies:

- K. Bauer, M. Chmielowiec-Lewczuk, M. Lament, E. Spigarska (2021) – a study of the quality of non-financial statements of selected insurance companies in the Polish market – it shows their varied quality.
- M. Lament (2017) – a study of the quality of non-financial statements drafted in 2001-2015 by insurance companies operating in Poland – it demonstrates their varying quality.
- K. Jonas (2017) – insurance and reinsurance companies active in Poland as of 31.12.2015 were examined. A review of the results points to a variety of ways non-financial information is presented.
- N.V. Kavitha, T. Anuradha (2016) – a study of good practices in Corporate Social Responsibility.
- M.M. Simona (2013) – 16 insurance companies operating in Romania were studied. Non-financial reports published in 2011 were covered. A variety of non-financial reporting principles was found. Only 2 companies prepared their non-financial reports in line with the GRI (Global Reporting Initiative) standard.
- Lock, P. Seele (2013) – 473 non-financial statements from chemical and finance (banks and insurance) businesses were reviewed. Economic undertakings active in Germany and Switzerland were analysed. The research concludes insurance companies have no standard ways of compiling non-financial reporting.
- B. Wieteska-Rosiak (2012) – a study of some social and environmental actions by selected insurance companies, i.e., PZU SA, STU Ergo Hestia SA, TU Allianz SA, ING Życie SA, TUiR Warta SA. The level of reporting on those Corporate Social Responsibility initiatives is very low.
- B. Scholtens (2011) – 153 insurance companies from 20 countries active in 2007 were examined. The analysis demonstrates social and ethical aspects are integrated into insurance activities better than environment issues. 25% of the insurance companies address all the categories involved in their reporting.

The results of the studies listed above show the quality of non-financial information from insurance companies is varied and requires improvements, e.g., in respect of comparability, a pre-requisite to the clarity and reliability of financial statements, necessary for the decision-making process to be realised. It needs to be noted all the research reviewed analyses the contents of non-financial statements as their methods and the techniques applied vary and basically involve a comparative analysis of some selected reporting areas and their contents. This means the methodology of studying the comparability of non-financial information requires improvements and some more standardised methods need to be found.

It should be stressed the comparability of non-financial information is important to both the undertakings drafting financial statements and to their environment, that is, it's crucial that the comparability of non-financial information be maintained both over reporting periods and between economic undertakings. Therefore, research into the comparability of non-financial information is topical as it helps to determine the weaknesses of existing solutions and identify some directions for their improvement, including also their methods.

3. A model for assessing the comparability of non-financial information in insurance companies

The subject of comparability of insurance companies' non-financial statements is inspired by, among other motivations, an attempt at taking advantage of the insurance NiCE (*Nijmegen Centre for Economics*) model, encountered as part of the literature review. The model was developed by F. Beest and B. Geert (2009), then employed by T. Yurisandi and E. Puspitasari (2015) and M. N. Almehairi et al. (2021) to assess the quality of financial statements. The NiCE model is a comprehensive index for assessing the quality of financial reporting based on five qualitative characteristics, such as materiality, faithful representation, comprehensibility, comparability, and timeliness. These features were evaluated on a five-point Likert's scale. In the research mentioned above, the model serves the assessment of financial statements from all undertakings, not only financial institutions. The NiCE model allows for a comprehensive assessment of qualitative characteristics of a financial statement according to diverse criteria. In the case of comparability, it provides for an assessment both over time and in space. We believe it suffers from some limitations, too, first of all a subjective assessment of some factors.

Till now, the NiCE model has helped with assessing the quality of financial information and has inspired a proposal for a model that could be used to assess the comparability of non-financial information in insurance companies. The scope of information that must be presented by force of regulations became the starting point for the model. The scope of information itself results from the regulatory requirements, however, the assessment of the accessibility and presentation of the information does not rely only on what is mandatory.

A universal tool is sought that could be modified and adapted to variable conditions, determined both by the regulations and the expectations of non-financial information users. It cannot rely on the regulatory requirements alone, therefore.

It can be concluded the scope of non-financial information under the model is a result of:

- the regulations of non-financial information reporting by insurance companies,
- the needs of stakeholders in non-financial information users.

In the event, the model identifies six areas that make up the objective scope of insurers' non-financial statements and should be assessed. These are (Bauer et al., 2021, pp. 129-131):

- business model,
- risk and the methods of risk management,
- environmental issues,
- social and labour issues,
- respect for human rights,
- counteracting bribery and corruption.

Likert's scale is used to assess non-financial information presented in the particular areas, just like in the NiCE model applied to financial information. The scale has five points, 1 to 5. The method of assigning scores is identical for all the six areas and covers:

1. organisational structure, including such detailed criteria as: the designation of affiliated organisations, the type and nature of their affiliations, relationships, both direct and indirect,
2. the environment, including such detailed criteria as: a description of market conditions, regulatory requirements, current situation in the market and competitors,
3. products, including such detailed criteria as: a description of product portfolio, identification of products key to a given insurance company that distinguish it, are innovative or have a large share in sales,
4. customer relationships, including such detailed criteria as: a description of customer service process, the characteristics of customer groups typical for a given insurance company.

The scopes of information to be assessed are not identical, on the other hand. They are more varied for the first two areas, i.e., business model and risk, and the same for the four remaining areas.

In all the areas, 1 is granted for the absence of any information about the area surveyed. A maximum of 4 can be awarded in the evaluation of key and detailed criteria. The latter, as highly varied, will be discussed for the particular areas to be assessed.

Table 1 lists the way non-financial information published by insurance companies about the business model is assessed.

Table 1.
Scoring awarded for the evaluation of non-financial information about the business model

Area	Assessment criterion/scoring
Business model	1 point - the absence of any information about the business model 1 point is then awarded for: • Organisational structure (capital links, relationships); • Environment (market, conditions, regulations, external factors); • Products (portfolio offered); • Customer relationships (brand, customer value, etc.); A maximum of 5 points if all the items are present.

Source: Compiled by the authors.

The criterion of business model assessment assumes 1 point is assigned where no information on this area is available. Thus, 1 is a negative evaluation, yet it's also the starting point to which scores are then added for the four remaining elements assessed as part of the first area. One point is assigned for information relative to each of the four business model components listed in Table 1.

Organisational structure is the first. A point should be granted where an insurance company presents its structure in a comprehensible, clear, and transparent manner. This means the information required should include not only the names of affiliated entities but also how they are affiliated and what the type of their relationship is (e.g., information on shareholdings in the particular entities). A user should be able to determine the degree of this affiliation, which is of great importance to the possible effects of e.g., group decisions or financial issues. The absence of full information means no points, 0.

The environment is the second element to be evaluated as part of the business model. Like in the case of organisational structure, 1 point should be given if an insurance company discloses information about the market, its conditions, regulations, and competition in full, clearly and intelligibly to users (e.g., addressing market threats and opportunities, the biggest competitor, the changes of insurance regulations).

Products are the third part of the business model. Information about the portfolio of insurance products is evaluated here. An insurer should present their products in a clear and comprehensible way, so that users are capable of placing a given insurance company in the insurance market, indicating products typical for a given insurer or which are their speciality. Thus, an insurer should base this information on their sales range.

Customers are the final element of the business model. A point is awarded where an insurance company presents and describes its customer relationships, customer service, information policy, as well as the perception of the insurer's brand among customers. This information substantially contributes to the creation of an insurance company's image, which plays a major role in the process of customer acquisition. Insurance products are sold under contracts, occasionally long-term, and the capacity for acquiring custom is largely conditional on what trust they have in a given organisation.

Table 2 describes how non-financial information published by insurance companies about risk and the way it is managed is assessed.

Table 2.
Scoring awarded for the evaluation of non-financial information about risk and the methods of its management

Area	Assessment criterion/scoring
Risk and the methods of its management	1 point - the absence of any information about risk 1 point is then awarded for: • Potential impact and its likelihood; • Time framework and the scale of impact; • Management costs; • Methods of risk analysis; A maximum of 5 points if all the items are present.

Source: Compiled by the authors.

The method of assessment in the second is the same as in the first area. Other elements are evaluated, however.

One point is assigned only if no information on risk is provided. One point for the assessment of each of the four elements making up risk and the methods of its management is then added to the base 1 point.

The first element relates to the assessment of the potential impact and likelihood of risk on the operations of a given insurance company. The way and scope of disclosure of this information should be clear and transparent to users. It shouldn't only refer to financial or liquidity statements, prepared above all due to the requirements of supervisory authorities, therefore, but should allow all stakeholders to assess the types of risk applicable to a given insurer and the ways they are managed.

The determination of time framework and the scale of risk's impact on an insurance company's operations is assessed as the second element. This assessment is part of the model in order to verify whether this information is presented clearly and intelligibly to every user. This is often additional information, absent from financial reporting. It ought to be 'translated' from the financial to non-financial language.

Another element evaluated in connection with risk is the information about the costs of risk management. The way clear and comprehensible information about this subject is published is subject to assessment. It needs to be remembered this is not only about the value and level of the costs, as this is financial information, but about a description which is designed to explain decisions and actions that are part of an insurer's risk management process. Like in the case of the other scores, this information is to be intelligible to all stakeholders.

The method of risk analysis is the final part in the risk-related part. The criterion of its assessment is similar to the foregoing elements. One point is awarded where an insurance company describes, in a clear and comprehensible manner, how it analyses and selects risk, captures heightened risks, analyses both the internal and external sources of risk, how it monitors risk levels or undertakes due diligence activities.

The next four areas are evaluated in the same way. The criteria of this assessment are shown in Table 3.

Table 3.
Scoring awarded when evaluating non-financial information concerning: environmental, labour, and social issues, respect for human rights, counteracting bribery and corruption

Area	Assessment criterion/scoring
Environmental, labour, and social issues, respect for human rights, counteracting bribery and corruption	1 point- the absence of any information 1 point is then awarded for: • Policy description; • A description of the policy's effects; • A description of key indicators; • Information about impact on financial results. A maximum of 5 points if all the items are present.

Source: Compiled by the authors.

The method of assessment for the remaining four areas is identical, namely, 1 point is given if there is no information and this single point is the base to which the successive scores are added. The maximum score is 5, where one point is given to all the components. The scope of information is the same for all the four areas, though.

A policy description is the initial element to be evaluated, of course, this refers to the policies concerning environmental, social, labour, and other respective issues. In this connection, an assessment depends primarily on the fact whether such a description is available. In addition, the evaluation should also be applied to the question if a description is comprehensible to the users of non-financial information.

The effects of policies in a given area are then assessed. An insurance company should clearly state what are the effects of a policy adopted in a given area. These effects may vary, yet first of all, actions undertaken must be shown and references made to changes during several years.

A description of key indicators in an area is the following element. This is quite strongly quantitative and its evaluation is relatively simple.

The last element to be evaluated is the information about the impact of policies giving rise to actions in a given area on financial results. This element comes last, but is of paramount importance as it points to relationships between non-financial and financial information, crucial to the understanding of the need to have non-financial information published by insurance companies and of its utility. These are not two separate areas of action, since any action, even if not always measurable and quantitative, has financial consequences, both direct (costs) and indirect (improved sales). To understand the current and future financial position of an insurer in full, stakeholders need both financial and non-financial information.

This model is a proposal that may require improvement and modifications, since the subject of non-financial reporting is relatively new and a number of questions must still be specified and regulated in more detail. Nonetheless, non-financial reporting has already become part of business practice that gives rise to a range of debates, ambiguities, and problems. A standardised presentation of this information is another step which should facilitate its comparability but will beyond any doubt also affect the proposed model for assessing the comparability of non-financial information.

4. Results

The study using the proposed model of comparability assessment of non-financial information relates to three years in the Polish insurance market, i.e., from 2019 to 2021. A review of the scopes of non-financial information published and available on the websites of insurance companies active in both the categories suggested its availability is very limited. This restricted the objective scope of this research. In addition, no full report on non-financial information for 2021 was found for Ergo Hestia in a file format, only a report of a somewhat different nature was available on socio-economic effects. A sustainable development report of that group for 2021 was published on the website as tabs, not a solid description. It's not addressed in this paper as a result.

Therefore, these results should be seen as a pilot study and a point of reference for future research. The reports of the following insurance companies have been evaluated: PZU, Ergo Hestia, and UNIQA. Six areas designated as factors (S) are assessed, numbered 1 through 6.

4.1. Business model (S1)

Table 4 contains the review results for the 2019-2021 reporting in respect of factor S1.

Table 4.
Business model (S1) – results

Entity/year	2019	2020	2021
PZU	3	3	4
ERGO HESTIA	5	4	na*
UNIQA	3	4	3

na* - not applicable

Source: Compiled by the authors.

As part of S1 assessment, 2-5 points are assigned for the descriptions of:

1. organisational structure, including such detailed criteria as: the designation of affiliated organisations, the type and nature of their affiliations, relationships, both direct and indirect;
2. the environment, including such detailed criteria as: a description of market conditions, regulatory requirements, current situation in the market, and competitors;
3. products, including such detailed criteria as: a description of product portfolio, the identification of products key to a given insurance company that distinguish it, are innovative or have a large share in sales;
4. customer relationships, including such detailed criteria as: a description of customer service process, the characteristics of customer groups typical for a given insurance company.

The study concluded the results are relatively good and similar for all the three entities. Ergo Hestia stands out, scoring the maximum in 2019. That information was not 100% full, however, but extensive enough to establish the undertaking meets the requirements and criteria of assessment.

It should also be noted the assessment results fail to display a growing trend and even occasionally deteriorate. This may be evidence that, any standards absent, insurance companies don’t know how to report non-financial information and look for solutions to meet user requirements.

Information about the environment and products was the most frequently missing. On the other hand, information on the organisation structure was available but incomplete, the relationships were not described and only the names of affiliated entities were given. The presentation of customer relationships proved best.

4.2. Risk and the methods of its management (S2)

Table 5 contains the review results for the 2019-2021 reporting in respect of factor S2.

Table 5.
Risk and the methods of its management (S2) – results

Entity/year	**2019**	**2020**	**2021**
PZU	1	3	2
ERGO HESTIA	2	2	na*
UNIQA	2	2	2

na* - not applicable

Source: Compiled by the authors.

As part of S2 assessment, 2-5 points are assigned for the descriptions of:

1) Potential impact and its likelihood,
2) Time framework and the scale of risk impact,
3) The costs of risk management,
4) The methods of risk analysis.

The results for S2 were markedly worse than for the remaining factors. The maximum of 3 points was scored by PZU for 2020. Interestingly, PZU was granted the lowest result, 1, meaning the lack of any information for the area, for the preceding year, 2019. Its remaining scores were 2. Since 1 point means the absence of information, 2 denotes the publication of non-financial information on risk to a minimum extent. A point was added for information about the methods of risk analysis in each case. Only PZU’s report for 2020 indicated the time frame and the scale of risk impact.

In non-financial reporting, the organisations referred their users to solvency reporting as far as risk information was concerned. This is an error, since the nature and users of these reports are different. Non-financial risk information should supplement, not replace, financial information about the same risks.

4.3. Environmental issues (S3)

Table 6 contains the review results for the insurers' 2019-2021 reporting in respect of factor S3.

Table 6.
Environmental issues (S3) – results

Entity/year	2019	2020	2021
PZU	4	4	4
ERGO HESTIA	4	4	na*
UNIQA	4	4	3

na* - not applicable

Source: Compiled by the authors.

As part of S3 assessment, 2-5 points are assigned for the descriptions of:

1. the policy, including such detailed criteria as an insurance company's declaration on environmental management, the extent and objectives of the impact, management support, and links between the policy and the main business strategy of the organisation,
2. the policy effects, including information about: the environmental management system and its parts, an assessment of an insurance company's environment impact, the division of environment protection responsibilities, staff awareness raising and training, improvements to products' energy efficiency, waste reduction, external environmental audits,
3. key performance indicators divided into those related to energy, water, and material consumption, the share of renewable energy sources, greenhouse gas emissions, water and air pollution, waste production,
4. impact on the financial result.

It turns out PZU scores highest among all the evaluations under all the criteria tested, namely, 4. Environment issues were discussed clearly and most detailed criteria were addressed. Ergo Hestia's reports for 2 of the years reviewed scored 4 as well.

What is noteworthy, the assessments of Uniqa's descriptions of environmental issues diminished over time. All the insurance companies reviewed were graded 4, the highest assessment scored, in 2019 and 2020. However, Uniqua's 2021 report contained less information about environmental issues than its reporting in the earlier years did.

No information on the impact of environmental actions on the financial performance was provided in any of the reports. The process of assessment raised doubts as to the detailed criterion of management support for the realisation of the environment policy. Since the very fact an undertaking is involved in such actions suggests management support, the criterion was found to be met.

4.4. Social and labour issues (S4)

Table 7 contains the review results for the insurers' 2019-2021 reporting in respect of factor S4.

Table 7.
Social and labour issues (S4) – results

Entity/year	2019	2020	2021
PZU	4	4	4
ERGO HESTIA	4	4	na*
UNIQA	4	3	3

na* - not applicable

Source: Compiled by the authors.

As part of S4 assessment, 2-5 points are assigned for the descriptions of:

1. the policy, including planned social commitment actions, particularly in the fields of education, health and safety, and culture; in respect of labour rights, the transparency of actions in the area of working conditions and the rules of remuneration,
2. policy effects, including welfare policy actions (such as COVID-19 protection, the promotion of healthy lifestyle, safety, cultural sponsorship or charity actions) and policy on labour issues (including working conditions, the rules of remuneration, corporate culture, worker protection against COVID-19, employment health and safety, cooperation with trades unions, professional staff development, extra non-financial actions for employees and their families),
3. key performance indicators, e.g., the structure and levels of spending on social issues, the quantity of actions promoting healthy lifestyle, the structure and numbers of volunteer actions, the quantity of actions supporting culture, the average base wages of women and men (the Gender Pay Gap indicator), the gender and age structures of staff, the structures of educational qualifications and jobs, the number and frequency of work-related accidents, the numbers of trades union members, the number of hours for training, the numbers and types of non-wage benefits, indicators related to staff medical testing, the number of workplace accidents, the number of those leaving their jobs,
4. impact on financial performance.

The data analysed suggest social and labour issues are most clearly regulated by PZU. It describes its social and labour policy actions at a great length. It is clear employment issues are of the essence to most insurers. The insurance companies examined are aware staff development affects company development. Care for worker health is of paramount importance, which became especially evident during the COVID19 pandemic. The impact of social and labour issues on financial performance was not addressed in any of the reports. It's quite understandable in the former case, however, the effect of questions like wages or training on the insurers' performance deserves more attention.

4.5. Respect for human rights (S5)

Table 8 contains the review results for the insurers' 2019-2021 reporting in respect of factor S5.

Table 8.
Respect for human rights (S5) – results

Entity/year	2019	2020	2021
PZU	4	4	4
ERGO HESTIA	4	4	na*
UNIQA	4	4	3

na* - not applicable

Source: Compiled by the authors.

As part of S5 assessment, 2-5 points are assigned for the descriptions of:

1. the policy, including adherence to major legal regulations, the determination of principles of respect for human dignity, non-discrimination against particular social groups, and of clear recruitment rules,
2. the policy effects, including any actions for diversity and respect for human rights (such as the prevention of mobbing, discrimination based on gender, nationality, race or religious convictions), respect for human rights in customer relationships (e.g., oriented products, including services for children, the elderly and disabled), the application of gender equality policies, the promotion of a corporate culture based on the respect for human rights following the principles of the UN Universal Declaration of Human Rights,
3. key performance indicators, e.g., the composition of supervisory authorities, management and supervisory board in terms of gender, age, and diversity – employees by age and origin,
4. impact on financial performance.

Ergo Hestia deserves particular attention as far as the human rights information is concerned. For instance, in 2019 it compiled a version of Sustainable Development Report dedicated to the visually impaired, entitling its 2020 report 'Man is Born Again'. It should be noted, too, PZU paid special attention to the presentation of human rights results with regard to gender and age.

What is important, insurance companies devote increasing space to respect for human rights, however, they should continue improving their actions in this respect. The impact of human rights issues on the financial performance wasn't mentioned in any of their reporting, possibly because these issues are hard to measure.

4.6. Counteracting bribery and corruption (S6)

Table 9 contains the review results for the insurers' 2019-2021 reporting in respect of factor S6.

Table 9.
Counteracting bribery and corruption (S6) – results

Entity/year	2019	2020	2021
PZU	4	4	4
ERGO HESTIA	2	2	na*
UNIQA	4	1	3

na* - not applicable

Source: Compiled by the authors.

As part of S6 assessment, 2-5 points are assigned for the descriptions of:

1. the policy, including a public undertaking to follow legal regulations and information about management support,
2. the policy effects, including a description of anti-corruption programmes and supervision, the ways of internal programme communication, the means of counteracting bribery and corruption, the frequency of anti-corruption system verifications, the process of monitoring and continuous improvement, requirements set to business partners,
3. key performance indicators, e.g., the number of workers trained on anti-corruption policies, corruption risk assessment, the examination of staff awareness, the numbers of court cases, and penalties,
4. impact on financial performance.

PZU was found to score the highest, that is, 4, on all the test criteria. The questions of counteracting bribery and corruption are discussed in depth, even designating the types and values of gifts that employees can accept, and describing the procedure in case these values are exceeded.

Information on the impact of actions to counteract bribery and corruption on the financial performance is not provided in any of the reporting. The realisation of the detailed criterion of management support for counteracting bribery and corruption raised doubts in the assessment process, too. Since the very fact such actions are conducted suggest management support, this criterion is treated as fulfilled.

5. Discussion

The authors have found some aspects other than the factors studied affect the comparability of non-financial reporting.

First, reports on non-financial information are hard to obtain. Institutions like insurance companies, public trust entities, can be expected to share information about their environmental, social, and economic actions with stakeholders interested in these areas. As part of this research, financial statements were only procured from 3 out of 15 insurance companies listed by the

Polish Chamber of Insurance PIU (2021) as operating in category I and 15 listed in category II[1]. We believe it would be advisable to publish this information in downloadable files on websites to improve the information policies of insurance companies in this respect. Insurance activities in various countries pose a challenge. Where a parent entity is based in another country and non-financial statements are compiled in a language other than of group members, attaching translations into the languages of all daughter companies to websites seems recommendable. In practice, only a single insurer, UNIQA, has taken such a step.

The comparability and even the very procurement of non-financial information is also hindered by a great variety of nomenclature of this reporting. This diversity can be observed not only between the particular insurance companies but also across the reporting periods examined. This is an impediment to research by means of internet browsers. A great divergence of volumes of the reports studied is another distinct and major interference with the comparability both in time and space. The relevant details are included in Table 10.

Table 10.
The names and numbers of pages of non-financial reports by the insurance companies reviewed

Year	Document name	Pages in non-financial report
PZU		
2019	Statement of non-financial information of PZU and PZU SA Capital Group for 2019	88
2020	Statement of non-financial information of PZU and PZU SA Capital Group for 2020	112
2021	Statement of non-financial information of PZU and PZU SA Capital Group for 2021	124
Ergo Hestia		
2019	ERGO HESTIA. Care. Community power. SUSTAINABLE DEVELOPMENT REPORT 2018-2019	131
2020	ERGO HESTIA. Care. SUSTAINABLE DEVELOPMENT REPORT 2020	111
2021	A diversity of perceptions, interpretations, and actions. Sustainable Development Report of ERGO Hestia Group 2021	na*
UNIQA		
2019	LIVE SAFER, BETTER, LONGER. The statement of non-financial information 019. UNIQA Insurance Group AG	45
2020	SEEDING THE FUTURE. Non-financial report 2020 UNIQA Insurance Group AG	58
2021	Non-financial statement 2021. UNIQA Group. Living better together	21

na* - not applicable. A report on non-financial information presented as website tabs

Source: Compiled by the authors on the basis of the insurance companies' non-financial reporting.

The analysis of non-financial reporting also suggests no clear trend in their volumes (more or fewer pages). Increasing the volume of a statement/ report can be seen as a good development, on the one hand, as a growing quantity and accuracy of information can be expected. On the other hand, it can be feared very extensive reports will also include immaterial data that will obscure essential information (the so-called information noise). At this stage of

[1] Since some insurance companies have separate entities operating in categories I and II, yet their non-financial reports are prepared jointly, the study covers a total of 20 insurance undertakings. They are detailed in the Methods section. As part of the research, PKO Bank Polski SA Capital Group Board Report was secured, including a non-financial section. As no mention of insurance activities was made there, this reporting has been excluded from the study.

their research, the authors only point to the lack of such a tendency and make no judgment whether increasing the volumes of non-financial reporting is a good, neutral or negative development. The authors believe the substantial fluctuations in the numbers of pages of Uniqua's non-financial reports (45 (2019) – 58 (2020) – 21 (2021) pages) can be seen to adversely affect the comparability of these statements. The changed presentation of non-financial information by Ergo Hestia for 2021, i.e., as tabs on its website, hinders the comparability as well.

In four out of six areas evaluated (namely, environmental, social and labour issues, respect for human rights, and counteracting bribery and corruption), the authors looked for any descriptions of the impact of environmental, labour, and corporate governance actions on financial performance. The impact has been shown in none of the reporting assessed. Although the authors are convinced such information would be important, addressing this criterion in any further evaluations of larger research samples should be considered.

Although a precise scoring for the particular main categories was adopted, their assessment was subjective. As it was hard to assign scores to the particular, detailed criteria as part of the key criteria (i.e., policy description, a description of policy effects, a description of key indicators)[2] in each of the six areas, the authors are thinking of expanding the grading scale.

6. Summary

A literature review and empirical research were carried out to analyse the comparability of non-financial reporting from insurance companies. Non-financial reports of 3 companies (PZU, Ergo Hestia, and UNIQA) for 3 years (2019, 2020, 2021) were surveyed as part of the empirical study. The choice is due to the limited availability of non-financial information on insurers' websites, which has restricted the subjective scope of the study. Six areas were assessed, i.e., business model, risk and its management, environmental, social, and labour issues, respect for human rights, and counteracting bribery and corruption.

The research and literature review suggest the following conclusions:

- the methods of presenting non-financial information by insurance companies are highly varied, which greatly obscures their comparability,
- the scopes of most non-financial information can be considered relatively good and similar for all the three undertakings in some areas,
- 4 on a five-point scale was the most common rating of non-financial information comparability,

[2] The main and detailed criteria of evaluation in the particular areas are described in the Methods section.

- what's noteworthy, the scopes of non-financial information made available vary in time and occasionally contract instead of expanding,
- the appearance of reports and other non-financial information changes as the insurers learn how to present them,
- since the ways of presenting the information are not standardised (in the period reviewed), it's very difficult to assess and compare the information and, in particular, to draw any far-reaching conclusions,
- as non-financial information is not measurable, its presentation is narrative,
- non-financial reporting affects the creation of an insurer's image, therefore, this subject matter will be of paramount importance in the coming years,
- non-financial reporting combined with financial reporting make up a full view of an insurer and allow stakeholders to assess a company properly.

As the research sample is limited, the study doesn't allow for the creation of a model for the assessment of non-financial information comparability and should be treated as a pilot project. The results can serve as a starting point for further, more in-depth empirical research. The development of systemic standard non-financial statements and a standardisation of indicators to assess the situation of insurance companies is another recommendation.

Non-financial information is an important part of sustainable development. It's therefore necessary to maintain its adequate features, in particular, comparability. It influences the quality and transparency of decision-making processes. This study is part of research into sustainable development, in particular, reporting information about sustainable development.

This study fills a research gap in the assessment of the comparability of insurance companies' non-financial information by reviewing the current state of affairs with reference to new regulatory challenges and determining an original methodology of assessment. It's important to both insurance companies and their stakeholders, in particular, policyholders, that is, those deciding to purchase insurance protection.

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References

1. Almehairi, M.N., Ketait, A., Al Qassim, R., Grassa, R. (2021). Does IFRS adoption enhance the financial reporting quality of DFM listed companies. *Strategies in Accounting and Management, Vol. 3, No. 2,* pp. 1-7.
2. Axjonow, A., Ernstberger, J., Pott, Ch. (2018). The impact of corporate social responsibility disclosure on corporate reputation: a non-professional stakeholder perspective. *Journal of Business Ethics, Vol. 151,* pp. 429-450, doi.org/10.1007/s10551-016-3225-4.
3. Bauer, K., Chmielowiec-Lewczuk, M., Lament, M., Spigarska, E. (2021). *Wielowymiarowość informacji finansowych i niefinansowych w zakładach ubezpieczeń*. Katowice: IUS PUBLICUM Instytut Prawa Gospodarczego.
4. Beest van F., Braam, G., Boelens, S. (2009). Qualitative of financial reporting: measuring qualitative characteristics. *NiCE Working Paper, Vol. 09, No. 108,* Radboud University Nijmegen, pp. 1-41.
5. Breijer, R., Orij, R.P. (2022). The comparability of non-financial information: an exploration of the impact of the non-financial reporting directive (NFRD, 2014/95/EU). *Accounting in Europe, Vol. 3, No. 23,* pp. 1-29, doi.org/10.2139/ssrn.3874896.
6. Chauhan, Y., Kumar, S.B. (2019). Does accounting comparability alleviate the informational disadvantage of foreign investors? *International Review of Economics & Finance, No. 60,* pp. 114-129.
7. Chen, A., Gong, J.J. (2019). Accounting comparability, financial reporting quality, and the pricing of accruals. *Advances in Accounting, No. 45,* pp. 22-34.
8. Chmielowiec-Lewczuk, M. (2018). *Modelowanie strategii kosztowej w zakładzie ubezpieczeń. Uwarunkowania rynku.* Wrocław: Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu.
9. Cole, V., Branson, J., Breesch, D. (2010). *Main issues on financial reporting for SMEs,* paper presented at Annual Congress of European Federation of Accountants & Auditors for SMEs, 13th May, London.
10. Commission Regulation (EC) No 1126/2008 of 3 November 2008 adopting certain international accounting standards in accordance with Regulation (EC) No 1606/2002 of the European Parliament and of the Council - as last amended by Commission Regulation (EU) 2020/551 of 21 April 2020. L/127.
11. Crous, C., Battisti, E., Leonidou, E. (2022). Non-financial reporting and company financial performance: a systematic literature review and integrated framework. *EuroMed Journal of Business, Vol. 17, No. 4,* pp. 652-676, doi.org/10.1108/EMJB-12-2020-0134.
12. Daske, H.L., Hail, Ch., Leuz, R., Verdi, R.S. (2008). Mandatory IFRS reporting around the world: early evidence on the economic consequences. *Journal of Accounting Research, No. 46,* pp. 1085-1142.

13. De Franco, G., Kothari, S.P., Verdi, R.S. (2011). The benefits of financial statement comparability. *Journal of Accounting Research, Vol. 49, No. 4*, pp. 895-931.
14. Directive 2014/95/EU of the European Parliament and of the Council of 22 October 2014 amending Directive 2013/34/EU as regards the disclosure of non-financial and diversity information by certain large undertakings and groups (OJ L 330/1, 15.11.2014) (Non-financial Reporting Directive, NFRD).
15. Directive 2022/2464 of the European Parliament and of the Council of 14 December 2022 amending Regulation (EU) No 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/EU with regard to corporate sustainability reporting (OJ L 322/15 of 16.12.2022) (Corporate Sustainability Reporting Directive, CSRD).
16. Hołda, A., Staszel, A. (2014). *Rachunkowość finansowa ubezpieczycieli. Podejście pragmatyczne. Teoria, zadania, testy.* Warszawa: CH Beck.
17. Hope, O.K. (2004). Variations in the financial reporting environment and earnings forecasting. *Journal of International Finance, Management & Accounting, Vol. 15, No. 1*, pp. 21-43.
18. Jibril, R.S. (2019). The impact of International Financial Reporting Standard (IFRS) adoption on accounting quality in Nigerian Listed Money Deposit Banks. *Applied Finance and Accounting, Vol. 5, No. 1*, pp. 56-72.
19. Jonas, K. (2017). Raportowanie informacji niefinansowych w zakładach *ubezpieczeń*. In: J. Krasodomska (Ed.), *Społeczna odpowiedzialność biznesu w rachunkowości. Teoria i praktyka* (pp. 73-101). Warszawa: Difin.
20. Jonas, K. (2020). *Rachunkowość zakładów ubezpieczeń i zakładów reasekuracji.* Warszawa: Difin.
21. Karmańska, A., Kędziora, K., Lament, M. (2003). *Rachunkowość finansowa zakładów ubezpieczeń. Pojęcia, problemy, zadania.* Warszawa: Difin.
22. Kavitha, N.V., Anuradha, T. (2016). Corporate social responsibility in insurance sector in India. *International Journal of Innovative Research & Development*, *Vol. 5, No. 2*, pp. 23-34.
23. Krasodomska, J., Cho, Ch.H. (2017). Corporate social responsibility disclosure. S*ustainability Accounting, Management & Policy Journal, Vol. 8, No. 1*, pp. 73-101, doi.org/10.1108/SAMPJ-02-2016-0006.
24. Krištofik, P., Lament, M., Musa, H. (2016). The reporting of non-financial information and the rationale for its standardization. *E&M Economics and Management*, *Vol. 2, No. XIX*, pp. 157-175, doi.org/10.15240/tul/001/2016-2-011.
25. Lament, M. (2017). Raportowanie informacji niefinansowych w zakładach *ubezpieczeń* w Polsce. *Zeszyty Teoretyczne Rachunkowości, No. 91*, pp. 63-86, doi.org/10.5604/01.3001.0009.8024.

26. Lament, M., Bukowski, S. (2022). Non-financial reporting as a determinant of financial efficiency of insurance companies. *The Polish Statistician, Vol. 67, No. 7,* pp. 63-86, doi.org/10.5604/01.3001.0015.9299.
27. Lament, M., Piątek, J. (2023). *Rachunkowość zakładów ubezpieczeń i reasekuracji*. Warszawa: PWN.
28. Look, I., Seele, P. (2013). Analyzing sector-specific CSR reporting: social and environmental disclosure to investors in the chemicals and banking and insurance industry. *Corporate Social Responsibility Environmental Management, Vol. 22, No. 2,* pp. 42-53.
29. Majeed, M.A., Chao, Y. (2022). Financial statement comparability and stock liquidity: evidence from China. *Applied Economics, Vol. 54, No. 47,* pp. 5497-5514.
30. Riahi-Belkaoui, A. (2004). *Accounting theory.* Hampshire: Cengage Learning EMEA.
31. Scholtens, B. (2011). Corporate Social Responsibility in the international insurance industry. *Sustainable Development, Vol. 19, No. 2,* pp. 123-142.
32. Simona, M. (2013). Social responsibility of insurance company. *Annals – Economy Series, No. 3,* pp. 13-22.
33. Skinner, F.S., Ioannides, M. (2005). FRS17 and the sterling double a corporate yield curve. *Journal of Business Finance & Accounting, Vol. 32, No. 5-6,* pp. 1141-1169.
34. Sunder, S. (2007). Uniform financial reporting standards: reconsidering the Top-Down Push. *Yale ICF Working Paper, No. 7-11,* pp. 1-24.
35. Szadziewska, A. (2015). Przejrzystość i porównywalność informacji niefinansowych w sprawozdawczości spółek w świetle zmian regulacyjnych. *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu, No. 396,* pp. 141-149, doi.org/10.15611/pn.2015.396.15.
36. The Polish Act of 15 December 2016 amending the Accounting Act (Journal of Laws 2017, item 61).
37. Waniek-Michalak, H. (2017). Porównywalność w czasie informacji o wynikach działalności społecznie odpowiedzialnej firm raportujących według zasad GRI. *Zeszyty Teoretyczne Rachunkowości, Vol. 1, No. 147,* pp. 129-143, doi.org/10.5604/01.3001.0009.8027.
38. Wieteska-Rosiak, B. (2012). Społeczna odpowiedzialność zakładów ubezpieczeń. *Acta Universitatis Lodziensis. Folia Oeconomica, No. 274,* pp. 129-140.
39. Winman, A.J. (2021). *Financial impact of social responsibility on publicly traded insurers*. Retrieved from: https://scholarworks.waldenu.edu/cgi/viewcontent.cgi?article=11176&context=dissertations, 15.06.2022.
40. Yurisandi, T., Puspitasari, E. (2015). Financial reporting quality - before and after IFRS adoption using NiCE qualitative characteristics measurement. *Procedia - Social and Behavioural Sciences, No. 211,* pp. 644-652.