OLSZTYN ECONOMIC JOURNAL
2025, 20(1), 55–67
ISSN 1897-2721 e-ISSN 2083-4675 DOI: 10.31648/oej.10807

ORIGINAL PAPER

DISCLOSURE OF SEGMENT REPORTING IN FINANCIAL STATEMENTS OF POLISH LISTED COMPANIES BEFORE AND AFTER COVID-19 PANDEMIC

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JEL Classification: M21.

Key words: operating segments, segment reporting, financial statement, sWIG-80.

A b s t r a c t

Events in recent years, such as the COVID-19 pandemic, have had an impact on the economy of many countries and markets. One of the measures of the impact of the pandemic on the Polish economy is the analysis of the behavior of the largest companies listed on the Warsaw Stock Exchange in Warsaw. The following study presents evidence of segment reporting information disclosed in financial statements of sWIG-80 listed companies before and after the COVID-19 pandemic. The purpose of the analysis was to verify the scope and method of presenting segment reporting standards in annual, consolidated financial statements, i.e. fiscal years 2019 and 2023. The analysis showed differences in the presentation of segments of information by sWIG-80 companies before and after the COVID-19 pandemic. It was found that after the pandemic companies are more willing to present incomes rather than costs in segments. However, before the pandemic, they informed more precisely about products and customers in operating segments.

How to cite: Dynowska, J., & Wrona, G. (2025). Disclosure of Segment Reporting in Financial Statements of Polish Listed Companies Before and After Covid-19 Pandemic. *Olsztyn Economic Journal*, *20*(1), 55-67. https://doi.org/10.31648/oej.10807

PREZENTACJA INFORMACJI O SEGMENTACH OPERACYJNYCH W SPRAWOZDANIACH FINANSOWYCH SPÓŁEK GIEŁDOWYCH W OKRESIE PRZED PANDEMIĄ I PO PANDEMII COVID-19

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Słowa kluczowe: segmenty operacyjne, sprawozdawczość segmentowa, sprawozdanie finansowe, sWIG-80.

Abstrakt

Zdarzenia ostatnich lat, jak pandemia COVID-19, wywarły wpływ na gospodarki i rynki wielu krajów. Jedną z miar wpływu pandemii na polską gospodarkę jest analiza zachowania się największych spółek notowanych na warszawskiej giełdzie papierów wartościowych. W artykule przedstawiono wyniki badania poświęconego sprawozdawczości segmentowej spółek wchodzących w skład indeksu sWIG-80 w okresach porównawczych przed pandemią COVID-19 i po niej. Celem badania była analiza sposobu i zakresu prezentacji informacji na temat segmentów operacyjnych w rocznych, skonsolidowanych sprawozdaniach finansowych w okresach porównawczych, tj. za lata 2019 i 2023. Przeprowadzone badania wykazały różnice w prezentacji informacji o segmentach operacyjnych przed pandemią COVID-19 i po niej przez spółki z indeksu sWIG-80. Wykazano, że po pandemii spółki chętniej prezentują dane o przychodach w podziale na segmenty operacyjne niż dane o poniesionych kosztach. Przed pandemią natomiast w większym stopniu ujawniały informacje o klientach i produktach w podziale na segmenty operacyjne.

Introduction

The sWIG-80 index collects companies with unique characteristics. As an index comprising small- and medium-cap companies (small-cap and partially mid-cap), it consists of enterprises that are more susceptible to economic fluctuations, supply chain disruptions, and changes in demand – factors that were particularly affected by the COVID-19 pandemic. Unlike large, well-diversified corporations of WIG20 or mWIG40, many sWIG-80 companies focus on specific market segments, making their financial performance and reporting practices more sensitive to external shocks.

The dynamic economic environment and the global impact of the COVID-19 pandemic have significantly influenced the way publicly traded companies report their financial results, particularly in the presentation of information on operating segments. Analyzing segment reporting of sWIG-80 companies before and after the pandemic provides a deeper understanding of how smaller publicly traded firms adapted their financial disclosures to evolving market conditions, shifting investor expectations, and increasing regulatory requirements.

The principle of presenting financial information by business or geographical area is defined by International Financial Reporting Standards 8 (IFRS 8) "Operating segments" and is applicable to annual periods beginning January 1, 2009. This new guidance superseded the International Accounting Standards 14 (IAS 14) issued in August 1997 (Lipiński, 2012).

IFRS 8 requires principle-based disclosures intended to help financial reporting users assess the nature and financial effects of their business activity (IFRS 8.1), including geographic regions (IFRS 8.33).

There is no clear definition of segments: however, Hucklesby (2022) defined operating segments as components of an entity with three characteristics: the component engages in business activities from which it can earn revenues and incur expenses, the component's operating results are regularly reviewed by CODM (Chief Operating Decision Maker) and discrete financial information is available for the component

The increasing demand for information from the accounting system is increasingly used for domestic economic decision-making and in the international market (Czubakowska, 2009, p. 35). International Financial Reporting Standards, and in particular IFRS 8, are designed to standardize the format of data disclosed to the public and to provide as much detailed information as possible that is relevant to its recipients and that will help to determine the financial and economic position of the company and to assess the impact of the economic activities undertaken.

The purpose of the study was to analyze the method and scope of presenting information on operating segments in annual consolidated financial statements in comparative periods, that is, for 2019 and 2023. We use all sWIG-80 companies listed on the Warsaw Stock Exchange consolidated financial statements for 2019 and 2023.

Literature Review

In August 2004 Polish Parliament approved amendment to Polish Accounting Act to meet requirements of European Union IFRS standards on consolidated financial statements. This obligation initially applied to issuers of securities admitted to public trading on the Warsaw Stock Exchange and banks. Later it was extended to individual and consolidated financial statements of entities applying to conduct public offering (IPO) and capital groups.

The financial statement is defined as the document prepared according to applicable regulations and within the specified period. It presents financial data with explanations. The financial statement is used to analyze the profitability of financial decisions (Bauer & Macuda, 2018).

The financial statement could be defined by the following criteria (Mućko, 2012):

1. Always refers to the past period. Usually, it is fiscal year or reporting year.

2. Reflect the current financial situation of the entity. The data presented could be used to conduct a comparative analysis to present the current financial situation.

3. The financial statement is based on reliable and objective financial data, which ensures the credibility and comparability of financial reports.

The purpose of unification of the information presented was to facilitate the comparison of financial data between different companies for stakeholders.

Data presented and complied with IFRS 8 let the reader better understand the area of activity. On the other hand, many companies faced problems due to the diverse nature of business profiles subject to the obligation of presenting information about operating segments. That was because companies had to identify segments in their own way and IFRS 8 does not specify strict provisions on how to determine it. This was also noticed by Prewysz-Kwinto and Voss, who analyzed WIG-30 companies listed on the Warsaw Stock Exchange (Prewysz--Kwinto & Voss, 2015). As shown by his analysis of the financial statements of the largest companies listed on the Warsaw Stock Exchange, the scope of presented information varies greatly, which makes data comparability difficult.

The operational segments disclosed by companies in the financial statements significantly support the analysis of the company's financial condition and the daily decisions made by the responsible persons.

Sojak (2011) found that publication of data on business segments is a beneficial phenomenon enabling the forecasting and verification of processes occurring within the organization that may be an important factor in attracting investors. In his opinion, it allows investors for estimating the investment attractiveness measures for the economic entity as a whole and for its individual areas, thus indicating the level of the generated rate of return, the accompanying risk and the importance of these areas for the whole (Sojak, 2011). The most common criteria used by enterprises are product line, geographical regions or customers.

Following Klimczak (2016) investigation, the data presented in financial statements is largely dependent on the internal solutions used in individual companies. Each entity decides for itself which operational segments it distinguishes, what principles of measuring segment data it applies. Therefore, the final shape of segment information is very individual and may vary between individual companies (Klimczak, 2016).

Superseding IAS 14 by IFRS 8 had both positive and negative effects in terms of financial statements suitability. As marked by Michalak (2014), the number of entities presenting data on only one segment decreased, but the number of disclosed segments and the scope of disclosed information increased, especially in relation to main customers, products and geographical areas.

But at the same time, as it was investigated by Dynowska and Zapadka (2018) who analyzed companies in the wood and paper industry that replacing IAS 14 with IFRS 8 did not change the quality of the presented information.

Consulting and auditing companies operating in Poland, such as Big 4 (Deloitte, Ernst & Young, KPMG, PricewaterhouseCoopers), offer guides and tutorials on their websites that describe in detail how to implement IFRS 8 requirements (Deloitte, 2009; *Niezbędnik MSSF…*, 2021).

Methodology

The research sample includes the consolidated financial statement of the sWIG-80 companies listed on the Warsaw Stock Exchange for 2019 and 2023. We use 2019 as the last year before the COVID-19 pandemic starts and 2023 as the first year after the COVID-19 pandemic ended.

To initiate analysis, we took the consolidated financial statements for the analyzed period obtained from their website and the official Warsaw Stock Exchange website.

In this analysis, we compared the method and scope of presenting information on operating segments before and after the COVID-19 pandemic and searched answers the following research questions[1]:

– RQ1: Did the sWIG-80 companies listed on the Warsaw Stock Exchange disclose information about operating segments in their financial reports?

– RQ2: What criteria were used to define the operating segments?

– RQ3: Did the sWIG-80 companies listed on the Warsaw Stock Exchange disclose geographical segment information?

– RQ4: Did sWIG-80 companies listed on the Warsaw Stock Exchange disclose required operating segment general information?

– RQ5: Did the sWIG-80 companies listed on the Warsaw Stock Exchange disclose detailed financial information about operation segments?

The answers to the above questions will allow us to assess the impact of the COVID-19 pandemic on the quality of sWIG-80 companies listed on the Warsaw Stock Exchange segment reporting. To answer defined research questions we studied relevant literature, analyzed obtained data and compared achieved results.

[1] The research used the methodology presented in the article by Klimczak (2016).

Results

For preliminary examination, we verified whether sWIG-80 companies listed on the Warsaw Stock Exchange disclosed operational and geographical segments in their financial statements.

This analysis (Tab. 1) revealed that in the first year after the COVID-19 pandemic, the number of entities qualified for sWIG-80 that disclosed geographical segment information decreased by around 35% and by 7% for companies that recognized operational segments defined as business, geographical and mixed criteria.

Table 1

Number of companies identified operational segments

Specification	2019	%	2023	%	Change	% change
Operational segments:	75	94	56	70	-5	-7
– business	65	87	47	84	-18	-28
– geographical	1	1	4	7	3	300
– mixed	9	12	5	9	-4	44
Geographical segments	52	65	34	42.5	-13	-34.6

Source: own elaboration.

Further analysis showed that companies recognize 1 to 9 operational segments. Most of the examined companies presented 1 to 4 segments, that is below the median (73.7% in 2023, and 80.5% in 2019) and at the same time, the number of companies that presented more than 4 segments in their financial statements that is above the median (26.3% in 2023 and 19.5% in 2019) (Tab. 2).

Table 2

Number of operational segments disclosed by companies

Number of segments	Companies disclosed operational segments		% change
	2019	2023	
1 segment	10	12	20.0
2 segments	17	10	-41.2
3 segments	20	9	-55.0
4 segments	11	11	–
5 segments	8	7	-12.5
6 segments	5	1	-20
7 segments	0	4	–
8 segments	1	1	–
9 segments	0	2	–
Total	14	15	7.1

Source: own elaboration.

The data presented in Table 3 show a tendency to reduce the scope of information displayed by listed companies in key items. In 2019 and 2023, there was a decrease in this value both for all sWIG-80 index companies and for those that occurred in both years.

Table 3

Number of companies disclosure required items

Items disclosed – all sWIG-80 index companies	2019	2023	% change
Factor used to identify segments	70	60	-14.3
Identify the types of products and services each segment	64	51	-20.3
Identify main customers	10	9	-10.0
Items disclosed – companies occurred in both years	2019	2023	% change
Factor used to identify segments	41	36	-12.2
Identify the types of products and services each segment	42	38	-9.5
Identify main customers	5	4	-20.0

Source: own elaboration.

The number of companies reported factors used to identify segments decreased by 14.3% for all sWIG-80 index companies and by 12.2% for those repetitive in both years. Other findings reveal that type products and service segment revenue and identification of main customers also decreased (product revenue 20%, identification of customer 10% for all sWIG-80 index companies and 9.5% and 20% for those repeated respectively) (Tab. 3).

Table 4 presents the entity's approach to items of the income and profit segment disclosure before and after the COVID-19 pandemic. As it shown, inter-segment revenue and revenue to external customer significantly increased in 2023 compared to 2019 for all sWIG-80 index companies and for those that occurred in both years. The number of companies that presented the data has doubled. This may be due to the growing need for internal monitoring and optimization of the segment activities, which may suggest more emphasis on the transparency of internal activities or pressure from investors who are interested in a stable position on the business partners market. On the other hand companies are not willing to disclose such financial data as EBIT, EBITDA.

After the COVID-19 pandemic, both all sWIG-80 index companies and those that occurred in both years decided not to disclose such data. The number of entities decreased by a comparable amount.

This may be due to a decrease in the profitability of the companies, e.g. because of rising cost or price pressure. Companies not do not want to lose their position among potential business partners can limit the disclosure of these data.

On the contrary segment interest revenue increased 150% for all sWIG-80 index companies, which may suggest that companies began more to use financial instruments that generate interest and decreased 12% for those that occurred in both years, which may suggest opposite tendency (Tab. 4).

Table 4

Number of companies disclosure revenue and profit

Items disclosed – all sWIG-80 index companies	2019	2023	% change
Inter-segment revenue	15	33	120.0
Revenue to external customers	18	35	94.4
Interest Revenue	8	20	150.0
EBIT	51	41	-19.6
EBITDA	44	30	-26.8
Items disclosed – companies occurred in both years	2019	2023	% change
Inter-segment revenue	14	27	92.8
Revenue to external customers	17	24	41.2
Interest Revenue	21	15	-28.6
EBIT	36	32	-12.5
EBITDA	28	21	-25.0

Source: own elaboration.

After the COVID-19 pandemic, the companies analyzed increased transparency in disclosing information on the costs of operational segments in their financial statements.

Table 5 presents data for the balance sheet costs of the operational segments. The increase in assets (64%), CAPEX (35%), and liabilities (33%) was revealed. Both for all sWIG-80 index companies and for those that occurred in both years.

Table 5

Number of companies disclosure balance sheet costs

Items disclosed – all sWIG-80 index companies	2019	2023	% change
Assets	25	41	64.0
Liabilities	24	32	33.3
CAPEX	23	31	34.8
Amortization and depreciation	41	37	-9.8
Items disclosed – companies occurred in both years	2019	2023	% change
Assets	18	30	66.6
Liabilities	17	24	41.2
CAPEX	17	23	35.3
Amortization and depreciation	28	25	-10.7

Source: own elaboration.

Amortization and depreciation are exceptions to this. For this segmental cost item, we found a 10% decrease in the examined financial statements.

As required by IFRS 8, the consolidated financial statements should also include information on identified geographical segments. The analysis of the companies in the years under review made it possible to identify the number of companies included in the sWIG-80 index and those that occurred in both years present data by geographical category (Fig. 1).

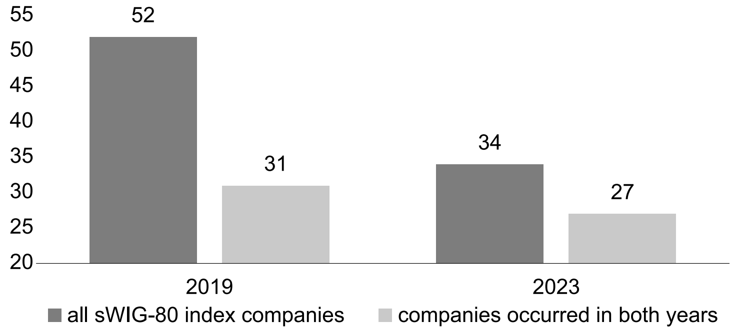

Fig. 1. Number of companies that disclosure geographical segments
Source: own elaboration.

The presented analysis shows that in both cases less number of companies presented geographical segmentation in 2023. This might be caused by possible business profile changes over 4 years, which exclude the sense of geographical segmentation.

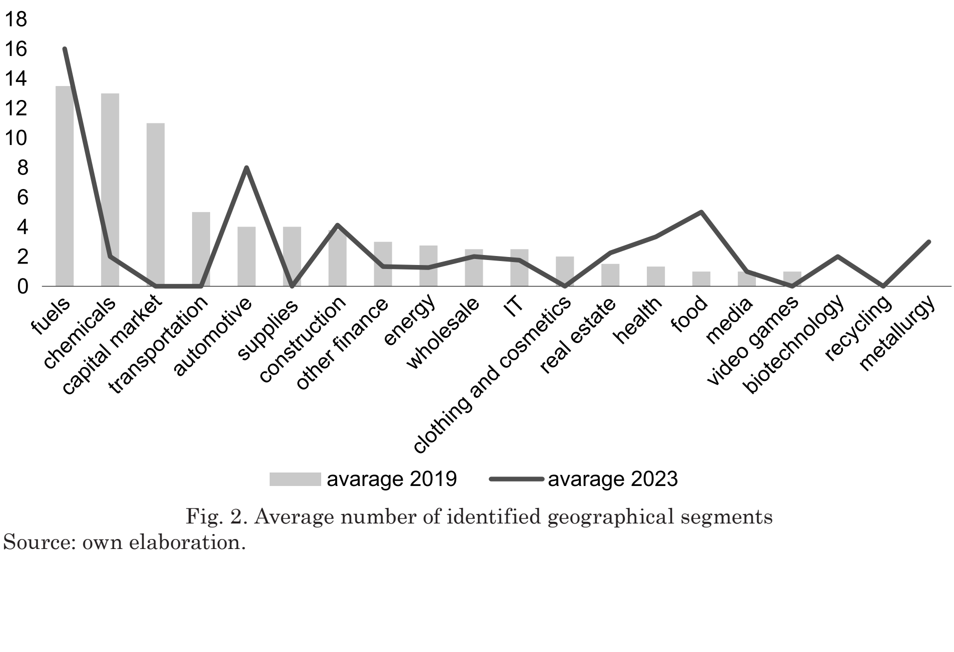

Fig. 2. Average number of identified geographical segments
Source: own elaboration.

We examined all sWIG-80 index companies by industry and found that markets such as fuels, chemicals and capital showed the largest tendency to decrease average number of geographical segments to be identified and at the same time industry such as food and automotive reverse trend (see Fig. 2). This may indicate regional expansion in these markets.

57 entities disclosed revenue from geographical segments in 2019 (32 for those that occurred in both years) and 35 in the year after the COVID-19 pandemic (27 for those that occurred in both years). We also mention that fixed assets by geographical segments decreased slightly over the years (Tab. 7).

Table 7

Number of companies disclosure items on geographical segments

Items disclosed – all sWIG-80 index companies	2019	2023	% change
Revenue	57	35	-38.6
Assets	24	19	-20.8
Items disclosed – companies occurred in both years	2019	2023	% change
Revenue	32	27	-15.6
Assets	15	14	-7.1

Source: own elaboration.

IFRS 8 requires disclosure of main customers if annual revenue exceeds 10% of the total. The data presented in Table 8 show that the entities examined are skeptical about sharing information about their customers in geographical segments. Only six companies disclosed it in 2023 compared to 18 in 2019 in total. A similar decreasing trend was observed for those that occurred in both years (4 in 2023 and 7 in 2019). One of the reasons for this could be protection of commercial confidentiality or to minimization of the risk of losing business.

Table 8

Number of companies that disclose the main customers in geographical segments

Item disclosed	2019	2023	% change
Main customers – all sWIG-80 index companies	18	6	-66.7
Main customers – companies occurred in both years	7	4	-42.8

Source: own elaboration.

Significantly decreased number of companies that present information about products by geographic segments. For all companies in the sWIG-80 index, this number decreased by 72% over 4 years and for those that occurred in both years by 60% (see Tab. 9).

Table 9

Number of companies that disclose types of products and services by geographical segments

Detailing	2019	2023	% change
Products and service – all sWIG-80 index companies	32	9	-71.9
Products and service – companies occurred in both years	15	6	-60.0

Source: own elaboration.

This trend related to the lack of product information by geographical segments may reflect the low significance of this item, the lack of a clear obligation to present such data resulting from the provisions and interpretation of IFRS 8 or changes in the business profile of individual companies.

Summary

IFRS 8 Operating Segments require companies to disclose information 'through the eyes of management' and it has always been a contentious issue for both standard setters and entities to which these apply.

The purpose of the analysis was to verify the scope of presenting segment reporting standards in annual, consolidated financial statements, i.e. fiscal years 2019 and 2023.

The research carried out shows that although most of the analyzed companies identified and disclosed operational and geographical segments either before or after the COVID-19 pandemic, the number of companies identifying operating segments decreased (rel. RQ1).

Analysis of the sWIG-80 consolidated financial statements showed that 84% of the entities after the pandemic compare to 87% of the entities before identify operational segments mainly by business (rel. RQ2). Only a few companies identified geographical or mixed segments.

Also, a similar trend was observed in geographical segment disclosure, and 57 companies analyzed in 2019 identified it, while in 2023 almost a third less. The analyze companies disclose information on the geographical segment, but their number decreased (rel. RQ3).

Information about the main customers is not publicly revealed either. Surprisingly small number of companies (only 8 in 2019 and 4 in 2023) disclosed main customers and only 9 presented product and service each segment. The popularity of publishing general information about segments is lower in 2023 (rel. RQ4).

The item for which the largest increase was observed in relation to the base period was revenue. Specially inter-segment revenue showed a triple increase of the number of entities. The presented segmental cost data is worse. Companies are not willing to disclose EBIT or EBITDA result (20% decrease).

Entities' fear of disclosing strategic or confidential information to competitors may lead to a reduction in the scope of disclosures. This conclusion was also drawn by Michalak (2014). With regard to disclosures on balance sheet item breakdowns, it has been demonstrated that for both assets, liabilities and capital expenditure there has been an increase in the number of companies presenting this information, but only half of the companies included in the sWIG-80 index still present this information in their consolidated financial statements (rel. RQ5).

Understanding the operational and geographical segment information presented in the consolidated financial statements, and, in particular, the principles for their identification, is of the utmost importance to all stakeholders who analyze and use the data presented therein.

The observed reduction in transparency can affect stakeholders, including investors and analysts, in their decision-making processes. Given these findings, it is recommended that regulatory bodies and companies consider measures to encourage greater disclosure of segment information. Specifically, companies should be incentivized to provide detailed EBIT and EBITDA figures, as well as information on key customers and product/service segmentation. Increased standardization and clarity in segment disclosure requirements could enhance comparability between firms and industries and allow internal, individualized information to be organized.

Future research could further explore the reasons behind declining disclosure trends, particularly the impact of regulatory changes, industry, specific factors, or internal corporate policies. Additionally, a comparative study on different stock indices or international markets could provide a broader perspective on segment disclosure practices. One limitation of this study is its focus solely on the sWIG-80 index, which may not be representative of all market segments. Further research could include a larger sample size and a more detailed qualitative analysis of company disclosures to gain deeper insight into corporate reporting behaviors.

Translated by Grzegorz Wrona

Acknowledgements

Special thanks to Mr. Marcin Gwiazda for his cooperation and help in carrying out the research.

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