

Artificial Intelligence Reporting and Investor Relations in Publicly Listed Companies in Poland

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Abstract:

Objective: To assess the role of artificial intelligence (AI) in publicly listed companies in Poland based on an analysis of annual reports and to evaluate the potential impact of AI-related disclosures on the market value of companies.

Research methodology / approach: Content analysis of annual reports and the rate of return on shares of companies from the WIG20 and mWIG40 stock indices.

Findings: A study of the 2023 annual reports of publicly listed companies in Poland aimed at assessing how companies perceive the application of AI in their reports revealed that 30% of companies in the WIG20 index and 52.5% of companies in the mWIG40 index did not reference contemporary artificial intelligence trends in any way. In the IT sector, only one out of eight companies from the mWIG40 index failed to include information on artificial intelligence in its annual report. An analysis of WIG20-listed companies' stock prices following the release of annual reports containing the most detailed AI disclosures suggests that publishing such information had no impact on stock returns. Additionally, only one company from the mWIG40 index appeared to experience a positive financial impact from its AI-related activities, which may have influenced its stock returns.

Limitations: A deeper understanding of the impact of AI-related disclosures on company market value could be achieved in future research using econometric methods.



Original contribution: This article represents one of the first attempts in the Polish academic community to bridge the research gap concerning investor relations and AI.

Keywords: Artificial intelligence, annual report, investor relations, shares, rate of return.

Introduction

Since the launch of ChatGPT in November 2022, interest in artificial intelligence-based solutions has increased significantly in both the corporate sector and among institutional and retail investors. One of the most prominent stock market examples of growing investor sentiment towards technology companies linked to artificial intelligence is Nvidia, a leading producer of processors for AI tools. In November 2022, the company's stock price stood at \$11.22 per share, reaching its peak value of \$135.6 on 18 June 2024 (Chart 1), resulting in a cumulative return of nearly 250% over this period.



Chart 1. Nvidia Closing Stock Price.

Source: Own study based on data from <https://stooq.pl/q/d/?s=nvda.us&c=0&d1=20210122&d2=20240911> (12.09.2024).

The substantial increase in investor interest in companies associated with artificial intelligence (AI) raises the question of whether publicly listed companies should update their investor relations policies accordingly.

According to the National Investor Relations Institute, investor relations constitute a strategic management function encompassing finance, communication, marketing, and compliance with securities regulations, enabling effective communication between a company, the investment community, and other stakeholders, ultimately contributing to an accurate market valuation of securities. In a broader sense, investor relations extend beyond minimum legal requirements and involve two-way financial and economic communication between a company and the financial community, particularly existing and potential investors, aimed at achieving a company-defined objective (Dziawgo, 2011, p. 25). The role of investor relations is to translate information about the issuer into a value-based communication framework for shareholders, fostering relationships built on reliable, market-oriented data. The primary goal of investor relations is to enhance a company's value (Krug, 2010, p. 35). To achieve this, the investor relations department of a publicly listed company employs various tools, starting with the publication of financial reports. Given the rapidly growing interest in artificial intelligence solutions, an important question arises: Can the inclusion of AI-related activities in corporate reports serve as an investor relations tool that directly influences a company's value and growth?

Literature Review

This article discusses the definition of artificial intelligence (AI), its role in value creation, the potential risks associated with AI, and its use in corporate reporting and investor relations.

One of the simplest definitions of artificial intelligence states that it is a machine that completes cognitive tasks that were previously conducted only by humans (Davenport, 2018; Raisch & Fomina, 2023). According to EU law, an AI system is a machine-based system that is designed to operate with varying levels of autonomy and that may exhibit adaptiveness after deployment, and that, for explicit or implicit objectives, infers, from the input it receives, how to generate outputs such as predictions, content, recommendations, or decisions that can influence physical or virtual environments (Regulation of the European Parliament and of the Council (EU), 2024, Article 3).

Ma and Sun (2020) precisely differentiate artificial intelligence from machine learning, stating: "Artificial intelligence refers to machines that perform human intelligence tasks while machine learning denotes computer programmes that can learn without following strict human instructions." Since machines can perform intelligent tasks based on trained computer programmes, machine learning is integrated into the comprehensive AI framework (Volkmar et al., 2022).

In their study, Zhang and Lu (2021) outline the stages of AI development: (1) Foundational Period (beginning with the Dartmouth Conference in 1956), (2) The First Golden Age (1960s–1970s), (3) The Second Golden Period (from 1982), (4) The Third Golden Period (from 2006). Key technologies driving AI development include big data, algorithms, machine learning, natural language processing (NLP), hardware, and software. Furthermore, three approaches to AI have been identified: symbolism, connectionism, behaviourism.

From an organisational perspective, Makarius et al. (2020) developed a model for the effective integration of AI into organisations; Du and Xie (2021) proposed a categorisation model for AI-driven products for managers; Dwivedi et al. (2021) examined the challenges and future opportunities of AI for business and management, government, the public sector, and technology. Lee et al. (2023) aimed to understand the organisational context in which AI would be implemented through a systematic review and analysis of studies published (up to 2021) in 31 journals focusing on information systems, business, and management.

A particularly noteworthy study on AI's role in value creation is Costa Climent et al. (2024). The authors emphasise that effective value creation and benefit realisation from AI applications require a deliberate use of AI. This deliberate use can be understood (a) in terms of where to position the AI use within the firm's business model architecture and (b) in terms of how to position it with regard to the grounding and bounding of AI use. Any firm's context is dynamic, so the firm's business model and its use of AI must be regularly reconfigured to realign the AI use with the firm's business model architecture (Costa Climent et al., 2024, p. 8)

The implementation of AI also comes with various risks and challenges. Zhang et al. (2022) conducted a systematic and comprehensive review of the wide range of inherent risks that can arise in AI and machine learning systems. These risks are classified into two categories: data-level risks (e.g. data bias, dataset shift, out-of-domain data, adversarial attacks), and model-level risks (e.g. model bias, misspecification, uncertainty).

Between June and September 2024, the European Commission conducted consultations on AI in the financial sector, resulting in a document identifying key challenges and risks associated with AI tools, including: (1) lack of access to required data, in general, (2) lack of access to data in an appropriate digital format, (3) lack of access to appropriate data processing technology (e.g. cloud computing), (4) data privacy concerns, (5) lack of trust regarding performance levels / safety aspects / certified solutions / technological reliability, (6) transparency and explainability, (7) reputational risks from undesirable AI behavior or output, (8) liability risks, (9) skills gap (the development of AI requires specific tech skills, and there is a shortage of such skills), (10) cybersecurity threats, (11) integration

challenges (integrating AI technologies with existing systems and processes can be complex and expensive) (European Commission, 2024).

Scientific research on the role of AI in investor relations remains very limited. A search in Elsevier's scientific publication database yields only one article on this topic by Laskin and D'Agostino (2024).

Regarding the analysis of AI-related information in corporate reports, such materials have primarily been published in non-academic formats. The *Financial Times*, in collaboration with *Arize AI*, released a study on how publicly listed companies perceive AI-related risks in their annual reports. According to the findings, 56% of *Fortune 500* companies mentioned AI as a "risk factor" in their most recent annual reports (compared to only 9% in 2022). Meanwhile, only 33 out of 108 companies that specifically discussed generative AI (AI capable of producing human-like text and realistic images) viewed it as an opportunity (Kinder, 2024).

In summary, on one hand, we observe a rapid increase in the use of AI technology and the risks associated with its application. On the other hand, there remains a limited number of academic publications, particularly regarding AI and investor relations.

To partially bridge this research gap, this article evaluates the role of AI in publicly listed companies in Poland based on an analysis of annual reports and examines the potential impact of AI-related disclosures on company market value. The *Financial Times* study described above served as inspiration for conducting this research in the Polish context.

Research Methodology

The research methodology involves content analysis of the 2023 annual reports of publicly listed companies. Information regarding artificial intelligence was primarily included in management board reports on operations. Additionally, the study examined consolidated financial statements, integrated reports, reports on non-financial information, and sustainability/ESG (*Environmental, Social, Governance*) reports. The study covered the largest companies listed on the Warsaw Stock Exchange (GPW) from the WIG20 index, as well as mid-cap companies from the mWIG40 index. The key term for report content analysis was "artificial intelligence".

The information obtained from annual reports was categorised into the following groups, referred to in the remainder of the article as dimensions:

- (1) No information on artificial intelligence;
- (2) Application of artificial intelligence in the company's operations;
- (3) Perception of artificial intelligence as a risk or an opportunity for development;
- (4) Development of AI tools for commercial product;

(5) Planning development with the use of artificial intelligence.

The next step involves a comparative analysis of the stock returns of the studied companies and stock market indices in Poland, aiming to identify the potential impact of AI-related disclosures in reports on companies' market value.

Research Findings

1. Analysis of Companies from the WIG20 Stock Index

The WIG20 index is calculated based on the quotations of a portfolio of shares of the 20 largest (by capitalisation) and most liquid companies on the Warsaw Stock Exchange (GPW). The findings presented in Table 1, based on an analysis of the 2023 annual reports of these companies, indicate that 30% of WIG20 index companies did not reference contemporary artificial intelligence trends in any way.

Table 1. Perception of Artificial Intelligence in WIG20 Companies' Reports for 2023.

Company*	No AI Information**	Use of AI	AI Perceived as Risk or Opportunity for Development	Development of AI Tools for Commercial Products	Planning Development with AI	GPW Sector
PKOBP		+			+	Banks
PKN ORLEN		+				Fuel Industry
PEKAO		+				Banks
PZU		+	+		+	Insurance
ALLEGRO		+	+		+	Retail
LPP		+				Retail
KGHM	+					Mining
SANPL		+	+		+	Banks
DINOPL	+					Retail
CDPRO-JEKT			+		+	IT

Company*	No AI Information**	Use of AI	AI Perceived as Risk or Opportunity for Development	Development of AI Tools for Commercial Products	Planning Development with AI	GPW Sector
ALIOR		+			+	Banks
MBANK					+	Banks
KRUK					+	Other Finance
KETY	+					Machinery Industry
BUDIMEX	+					Construction
PGE			+			Energy
ORANGEPL		+	+		+	Telecommunications
CYFRPLSAT	+					Telecommunications
PEPCO	+					Retail
JSW					+	Mining

* Company names abbreviated as per the GPW Index Card:
<https://gpwbenchmark.pl/karta-indeksu?isin=PL9999999987>

** AI – artificial intelligence

Source: Own study based on publicly listed companies' reports.

In the annual report of Allegro (2024), AI was discussed in three dimensions:

- (1) Application (the company implemented generative AI to enhance the accuracy and detail of product descriptions on its platform);
- (2) Acknowledgement that the use of AI could increase the company's risk exposure;
- (3) AI-driven development.

Additionally, Allegro operates a research and development laboratory, Machine Learning Research, and its team has developed a proprietary machine translation engine tailored for e-commerce purposes.

The most extensive discussion of artificial intelligence was found in the Management Board's Report on the Activities of the PZU Group (the word "intelligence" appeared 55 times). PZU describes its business model as being based on

four core values: innovation, responsibility, integrity, and stability. AI and machine learning are identified as key components of innovation.

The perception of AI in PZU (2024) was also structured into three dimensions:

- (1) Application of AI: PZU introduced an innovative tool that uses AI algorithms in motor insurance claims processing. The Agro Lab tool applies AI-driven algorithms to analyse satellite images and data from PZU's database to accurately assess damaged agricultural areas.
- (2) Risk: PZU highlighted AI-related challenges, including data privacy concerns, transparency, ethical considerations, and security risks.
- (3) Planned AI-driven development: PZU outlined its key development areas, emphasising leveraging the PZU Group's potential by implementing machine learning and AI-based analytical tools into business processes. Moreover, PZU established the GPT Lab team, tasked with analysing the safe use of generative AI, identifying valuable use cases, and testing AI-driven projects.

Similarly, Santander Bank (in a very limited scope) and Orange described AI in three dimensions. In contrast, four companies (PKO BP, Alior Bank, CD Projekt, and Orange) presented AI-related information in two dimensions.

Only 30% of companies included AI-related risks or development opportunities in their reports. Notably, none of the WIG20 companies are developing AI tools as commercial products. According to annual reports, only 45% of companies apply AI algorithms in their operations.

From a sectoral perspective (as classified by GPW), four out of five banks use AI tools. Such algorithms are actively implemented by PKO BP Bank (introducing in their iPKO mobile application an AI-based eKantor service) and Alior (virtual voice assistant InfoNina). Pekao and Santander Bank have reportedly experimented with AI implementation. mBank, according to its 2021–2025 strategy, plans to use AI and data analytics solely to support the development of innovative products and improve risk assessment.

In other WIG20 sectors, two out of four retail companies, one out of two telecommunications firms, one industrial company in the mining sector apply AI algorithms. PKN ORLEN, the largest industrial company, only mentioned in its non-financial report that AI is used in sales activities, implementing a hyper-personalisation platform powered by AI. CD Projekt, the largest IT sector company, is only conducting research into the potential development and use of AI-driven tools in future products.

A key research question in this study is whether including AI-related information in corporate reports can serve as an investor relations tool, aimed at enhancing market value (compared to other GPW-listed companies). An analysis of WIG20-listed companies' annual reports suggests that Allegro and PZU disclosed the most extensive AI-related information. However, this did not impact their stock returns.

Between January and August 2024, both companies' returns were significantly lower than in 2023 (PZU even recorded negative returns) (see Table 2).

Tabela 2. Stopy zwrotu akcji spółek WIG20.

Share / Index	Rate of return (%)		Akcja. indeks	Rate of return (%)	
	Jan-Aug 2024	2023		Jan-Aug 2024	2023
PKO BP	21.00	66.13	ORANGEPL	13.53	28.95
PKN ORLEN	-1.77	10.60	CYFRPLSAT	20.11	-29.98
PEKAO	15.67	84.68	PEPCO	-30.78	-34.06
PZU	-1.33	41.84	JSW	-38.9	-27.73
ALLEGRO	14.24	32.61	WIG20	2.95	30.75
LPP	-8.96	56.89	mWIG40	9.67	39.26
KGHM	14.27	-2.39	WIG	8.17	36.54
SANPL	15.43	88.82	WIG-BUDOWNITWO	4.43	86.88
DINOPOL	-30.00	22.76	WIG-BANKI	20.25	76.94
CDPRJEKT	60.38	-10.67	WIG-ODZIEŻ	12.4	52.18
ALIOR	40.27	122.76	WIG-MOTORYZCJA	-11.32	42.70
MBANK	19.63	80.74	WIG-MEDIA	-11.06	38.07
KRUK	-3.13	59.82	WIG-ENERG	-10.09	33.09
KETY	11.84	78.48	WIG-INFORMTYKA	19.39	16.15
BUDIMEX	0.81	131.98	WIG-PALIWA	-1.63	11.44
PGE	-21.87	26.06	WIG-GRY	36.94	-8.08

Source: GPW Statistics: <https://www.gpw.pl/statystyki-gpw> (11.09.2024).

Moreover, for some companies that did not include any information about artificial intelligence in their reports, such as Cyfrowy Polsat, the stock return is higher than that of Allegro or PZU. The stock returns of some companies that are only planning to use artificial intelligence algorithms, such as mBank, are also higher than those of the aforementioned Allegro or PZU. If we compare the stock returns of Allegro and PZU with stock index returns, we can see that the return of WIG-BANKI in January–August 2024 was higher than the return of these companies.

In summary, based solely on the comparison of stock returns of WIG20 index companies (without conducting an in-depth regression analysis), we can conclude that the publication of artificial intelligence-related information in annual reports does not impact the increase in market value of companies.

2. Analysis of Companies from the mWIG40 Stock Index

The mWIG40 index is calculated based on the quotations of a portfolio of 40 mid-cap companies on the Warsaw Stock Exchange (GPW). The findings of the analysis of the 2023 annual reports of these companies, regarding the perception of artificial intelligence, presented in Table 2, indicate that 21 companies (52.5%) from the mWIG40 index did not reference AI-related business trends in any way. Nearly half of these companies belong to industrial sectors (9 companies).

Table 3. Perception of Artificial Intelligence in mWIG40 Companies' Reports for 2023.

Company*	No AI Information**	Use of AI	AI Perceived as Risk or Opportunity for Development	Development of AI Tools for Commercial Products	Planning Development with AI	GPW Sector
INGBSK		+	+			Banks
CCC		+	+			Retail
MILLENIUM		+			+	Banks
BENEFIT	+					Other Services
ASSECOPOL		+		+	+	IT
INTERCARS	+					Automotive Industry
TAURONPE					+	Energy

Company*	No AI Information**	Use of AI	AI Perceived as Risk or Opportunity for Development	Development of AI Tools for Commercial Products	Planning Development with AI	GPW Sector
XTB					+	Capital Market
HANDLOWY	+					Banks
BNPPL		+			+	Banks
ENEA					+	Energy
DEVELIA	+					Developers
COMARCH		+		+	+	IT
DOMDEV	+					Developers
AUTO-PARTN	+					Automotive Industry
WIRTUALNA					+	Media
11bit	+					IT
NEUCA					+	Wholesale Trade
AMREST	+					Hotels and Restaurants
GPW		+			+	Capital Market
TEXT		+	+		+	IT
ABPL	+					Wholesale Trade
GRUPPRCUJ		+				Other Services
RAINBOW	+					Hotels and Restaurants
SELVITA	+					Pharmaceutical Industry
CYBERFLKS		+	+	+		IT
MOBRUK	+					Other Industry

Company*	No AI Information**	Use of AI	AI Perceived as Risk or Opportunity for Development	Development of AI Tools for Commercial Products	Planning Development with AI	GPW Sector
RYVU	+					Pharmaceutical Industry
GRUPA-AZOTY	+					Chemical Industry
EUROCASH	+					Retail
SYNEKTIK					+	Pharmaceutical Industry
ASBIS	+					Wholesale Trade
GRENEVIA	+					Electromechanical Industry
HUUUGE		+	+			IT
ARCTIC	+					Other Services
TSGAMES		+				IT
BOGDANKA	+					Mining
GREENX	+					Mining
POLIMEXMS	+					Construction
CIGAMES			+			IT

* Company names abbreviated as per the GPW Index Card: <https://gpwbenchmark.pl/karta-indeksu?isin=PL9999999987>;
**AI – artificial intelligence

Source: Own study based on publicly listed companies' reports.

In three or two dimensions, information on the use of artificial intelligence was described by seven companies, five of which belong to the IT sector and two to the financial sector. Only in the annual reports of Asseco, Comarch, and cyber_Folks did artificial intelligence appear in the context of developing tools with AI algorithms for commercial products.

For example, Asseco (2024) developed a solution for detecting unjustified sick leave. In ZUS [Social Insurance Institution], an AI model was launched that, among other things, analyses the insured person's behavioural patterns, medical visit history, and the characteristics of the illness to automatically determine risk levels indicating

whether a given sick leave certificate was likely issued incorrectly. In Comarch (2024), artificial intelligence was used in the development of new generations of loyalty systems and ERP, as well as in solutions for telecommunications operators, e-commerce, telemedicine, and financial services. In cyber_Folks (2024), by building a tool entirely based on artificial intelligence and analysing over 2 million websites, the company created a website builder capable of generating high-quality sites in approximately 90 seconds. Text (2024) also presented AI-related information in three dimensions, though in a more limited scope, such as in ChatBot development. Additionally, AI development was described as a factor that could significantly impact the business environment of the Group.

Information on the risks or development opportunities of AI was described in the reports of only six (15%) companies from the mWIG40 index. According to 2023 annual reports, only 30% of companies use AI algorithms in their operations, and 27.5% plan to develop with AI applications.

From a sectoral perspective, only one out of eight IT sector companies — 11bit — did not mention AI in its annual report.

Huuuge (2024) provided the most extensive discussion of AI-related challenges, particularly for the gaming industry. According to its report, AI implementation may:

- (1) Hinder innovation and creativity in game design, leading to excessive standardisation;
- (2) Create legal uncertainties regarding copyright ownership;
- (3) Introduce unexpected elements into games, requiring a balance between creativity and player experience consistency;
- (4) Lead to unintended biases and discriminatory behaviours in AI-driven game algorithms (Huuuge, 2024).

In the financial sector, three out of four banks in the mWIG40 index use AI tools, though to a limited extent. BNP Paribas implemented AI-powered cash management, Bank Millennium introduced a decision-making engine using AI mechanisms, and ING Bank Śląski, in its Management Board's report, merely mentioned the use of AI in its business model. In the capital market sector, within the GPW Group in Warsaw, only GPW Logistics S.A. has AI-powered tools. They are used for automation and digitalisation processes in the Transport-Shipping-Logistics (TSL) industry and ensuring the security of transport document circulation. In 2024, work is planned on commercialising the GPW Data platform, based on machine learning and AI methodologies. Meanwhile, in XTB, known for brokerage activities in financial markets, development and R&D work is ongoing on AI-based technologies.

In other sectors, AI-based solutions were either used or planned in a limited capacity, and in many cases, they were not considered in annual reports at all. For example, energy companies (Enea and Tauron) plan to use AI algorithms, while in

wholesale trade, hospitality, and restaurant sectors, none of the companies reported using AI solutions.

The next step in the analysis of mWIG40-listed companies is to determine whether AI-related information in corporate reports can be seen as an investor relations tool aimed at increasing market value, in comparison to other companies listed on the GPW in Warsaw. From the analysis of annual reports of mWIG40-listed companies, it can be concluded that the most comprehensive AI disclosures were made by IT companies, particularly Asseco, Comarch, Text, and cyber_Folks.

Comarch will not be included in the stock price analysis, as its recent share price movements were driven by the founding family's decision to delist the company from GPW. Following the announcement on 17 July 2024, Comarch's share price surged by nearly 12%, reaching an all-time high (myERP.pl, 2024).

The publication of AI-related information did not impact Text's stock price, as its return for January–August 2024 was negative, at -30.35% (Table 4).

Table 4. Stock Returns of mWIG40 Companies.

Share / Index	Rate of return (%)		Share / Index	Rate of return (%)	
	Jan–Aug 2024	2023 r.		Jan–Aug 2024.	2023 r.
INGBSK	21.10	55.34	MOBRUK	-3.38	16.43
CCC	153.60	42.66	RYVU	-6.61	16.75
MILLENIUM	7.90	82.42	GRUPAAZOTY	-28.02	-37.44
BENEFIT	36.41	168.24	EUROCASH	-36.26	24.85
ASSECOPOL	29.23	5.00	SYNEKTIK	77.01	195.63
INTERCARS	-14.62	31.20	ASBIS	-24.16	24.68
TAURONPE	-4.87	76.22	GRENEVIA	-34.48	1.52
XTB	94.65	37.11	HUUUGE	-21.64	22.94
HANDLOWY	3.83	48.98	ARCTIC	-4.71	28.66
BNPPL	25.60	52.86	TSGAMES	-1.35	-17.57
ENEA	15.49	52.83	BOGDANKA	-22.36	-27.11
DEVELIA	31.74	101.59	GREENX	-28.01	37.35
COMARCH	57.96	30.26	POLIMEXMS	-27.26	-7.92

Share / Index	Rate of return (%)		Share / Index	Rate of return (%)	
	Jan-Aug 2024	2023 r.		Jan-Aug 2024.	2023 r.
DOMDEV	17.28	70.55	CIGAMES	-22.86	-16.20
AUTOPARTN	-3.06	95.06	WIG20	2.95	30.75
WIRTUALNA	-16.94	23.00	mWIG40	9.67	39.26
11bit	17.56	-8.31	WIG	8.17	36.54
NEUCA	-7.33	44.63	WIG- -BUDOWNICTWO	4.43	86.88
AMREST	-13.53	35.99	WIG- -BANKI	20.25	76.94
GPW	10.30	28.11	WIG- -ODZIEŻ	12.4	52.18
TEXT	-30.35	10.69	WIG- -MOTORYZACJA	-11.32	42.70
ABPL	33.67	51.98	WIG- -MEDIA	-11.06	38.07
GRUPPRACUJ	-10.29	55.63	WIG- -ENERG	-10.09	33.09
RAINBOW	79.15	225.66	WIG- -INFORMATYKA	19.39	16.15
SELVITA	14.53	-29.43	WIG- -PALIWA	-1.63	11.44
CYBERFLKS	47.02	88.48	WIG- -GRY	36.94	-8.08

Source: GPW Statistics: <https://www.gpw.pl/statystyki-gpw> (11.09.2024).

The rate of return on Asseco's stock in the analysed period in 2024 amounted to 29.3%. However, for some companies that did not include any AI-related information in their reports, such as Benefit, the stock return was higher. The stock returns of some companies that only plan to use AI algorithms, such as mBank, were also higher than that of Asseco.

A different case is observed for cyber_Folks. Its stock return is among the highest among mWIG40 companies and exceeds the returns of all major and sectoral stock indices listed in Table 4. The bullish trend in cyber_Folks' stock prices is most likely driven by improved financial results, which stem from the development of new AI-based products. Considering the company's active expansion, its shares were added to the mWIG40 index on 9 July 2024.

Conclusion

The study conducted as part of this research on how publicly listed companies in Poland perceive artificial intelligence technology in their 2023 annual reports showed that 30% of WIG20 companies did not reference AI-related trends in any way. Information about AI-related risks or development opportunities was described in only 30% of the reports. None of the WIG20 companies are developing AI tools as commercial products. According to annual reports, only 45% of WIG20 companies use AI algorithms in their operations. Additionally, an analysis of the stock performance of WIG20 companies that provided the most extensive AI-related disclosures suggests that publishing this information did not impact their stock returns.

The analysis of 2023 annual reports of mWIG40 companies in terms of AI perception indicates that 52.5% of mWIG40 companies did not reference AI trends in any way. Nearly half of these companies belong to industrial sectors. Information about AI-related risks or development opportunities was included in only 15% of the reports. AI algorithms are used in the operations of only 30% of mWIG40 companies, while 27.5% plan to develop AI-based solutions. In the IT sector, only one out of eight mWIG40-listed IT companies did not mention AI in its annual report. An analysis of stock performance for mWIG40 IT companies developing AI tools suggests that AI-related business activities likely had a positive financial impact on one company, influencing its stock returns.

A deeper understanding of how AI-related disclosures impact company market value can be achieved in future studies using econometric methods.

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