



Cybersecurity – An Empirical Comparison of 2019 and 2024

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Overview

1. Introduction Cybersecurity – Who cares?

2. Methodology & Sample Empirical Study – Online Questionnaire

3. Results Comparison of 2019 and 2024

4. Discussion Recommendations for Practice



Cybersecurity – Who cares? Facts and Figures

- According to the industry association **Bitkom e. V.** 2023:
 - **72 percent** of German companies were **affected by cyberattacks in 2023** and a further 8 percent assume that they were affected.
 - Damage caused by data theft, industrial espionage and sabotage amounted to 205.9 billion euros in Germany in 2023.
 - Communication and **customer data** is stolen very frequently.
- Cyber insurance currently only provides a limited protective shield against potential financial losses.



Why Conduct an Updated Cybersecurity Study in 2024?



Evolving Cyber Threats

Cybercriminals have become **more sophisticated**, using AI to create adaptive malware *World Economic Forum (2024)*



Regulatory Changes

Introduction of **stricter regulations**, such as the *NIS 2 (2022)* Directive impose stricter security requirements



Increasing Stakeholder Demands

Stakeholders (i.e. customers, investors) now expect higher cybersecurity standards

ISACA (2023)



Insights into Post-Pandemic Cybersecurity Measures

The shift to **remote** and **hybrid work** due to the pandemic has created new vulnerabilities *Deloitte* (2024)



Cybersecurity – an Empirical Comparison of 2019 and 2024 Methodology and Sample

	2019	2024
Methodology	Online-Questionnaire	
Population	Companies in Germany with at least 50 Employees	
Target Persons	Executive Board and Management, Head of IT or CISO	
Sample Size	N = 372	N = 243
Survey Period	October to December	March to April



Cybersecurity – an Empirical Comparison of 2019 and 2024 Methodology and Sample

In **2019**, a total of **372 German Companies** from various Industries participated in the Study, while this number decreased to **243** in **2024**, distributed as follows:



Deviations from 100 % are due to rounding

07.10.2024



Cybersecurity – an Empirical Comparison of 2019 and 2024 Cybersecurity Priority



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Cybersecurity – an Empirical Comparison of 2019 and 2024 Challenges of Cyberattacks



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Cybersecurity – an Empirical Comparison of 2019 and 2024 Attackers



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Cybersecurity – an Empirical Comparison of 2019 and 2024 Assessment of Cyber Risks





Cybersecurity – an Empirical Comparison of 2019 and 2024 Detection of Vulnerabilities



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Cybersecurity – an Empirical Comparison of 2019 and 2024 Cyber Incident Response Plan (CIRP) in the Event of a Cyberattack





Cybersecurity – an Empirical Comparison of 2019 and 2024 Cybersecurity as Part of the Corporate Strategy





Cybersecurity – an Empirical Comparison of 2019 and 2024 Information Security Management System (ISMS)



■2019 ■2024



Cybersecurity – an Empirical Comparison of 2019 and 2024 Cyber Insurance



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Cybersecurity – an Empirical Comparison of 2019 and 2024 Future Relevance of Cybersecurity



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Cybersecurity – an Empirical Comparison of 2019 and 2024 Expenses for Cybersecurity





Cybersecurity – an Empirical Comparison of 2019 and 2024 Recommendations for Practice



Increase Awareness and provide Training

Educate employees on security risks



Implement a Comprehensive ISMS

Create robust **policies** and **protocols**



Develop and Test a Cyber Incident Response Plan (CIRP)

Ensure **readiness** for potential breaches

Invest in Advanced Security Technologies

Leverage cutting-edge tools to **protect data**



Thank you – Any Questions?





Literature

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