MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
UKRAINIAN-AMERICAN CONCORDIA UNIVERSITY

Faculty of Management and Business
Department of International Economic Relations, Business & Management

Bachelor's Qualification Work

MODELS OF DIGITAL DEMOCRACY AS THE BASIS OF MANAGEMENT IN THE COMBINED CONSUMPTION OF CORPORATE TECHNOLOGIES

(based on the Business Media Network case)

Bachelor student of the 4th year of study

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Specialty 073 – Management

Educational program – IT Management

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                                                      Ph.D. in Technical Sciences

Kyiv – 2024

Abstract

This Bachelor's Qualification Work examines the concepts of digital democracy and its impact on corporate management, with a specific focus on the Business Media Network Corporation. This study explores how digital democracy models may be used to monitor corporate technology's collective use efficiently. The study examines the philosophical foundations of digital democracy and its implementation in corporate settings, specifically focusing on the practice of data democratization. Moreover, it assesses the preparedness of modern companies to adopt these concepts and highlights typical obstacles they encounter.

This paper showcases the actual implementation of digital democracy concepts into corporate management strategies by conducting a thorough analysis of the BMN Corporation. It emphasizes the major advantages, difficulties, and prospects associated with this integration. The research proposes suggestions for enhancing business governance through the use of innovative frameworks that leverage customer feedback, file-sharing activities, and collaborative consumption of corporate technologies.

Keywords: digital democracy, corporate management, BMN Corporation, data democratization, collaborative consumption of corporate technologies

Анотація

Ця бакалаврська кваліфікаційна робота досліджує концепції цифрової демократії та її вплив на корпоративне управління, з особливим акцентом на корпорації Business Media Network. У цьому дослідженні розглядається, як моделі цифрової демократії можуть ефективно використовуватися для контролю колективного використання корпоративних технологій. Дослідження аналізує філософські основи цифрової демократії та її впровадження в корпоративному середовищі, зокрема акцентуючи увагу на практиці демократизації даних. Крім того, оцінюється готовність сучасних компаній до впровадження цих концепцій та висвітлюються типові перешкоди, з якими вони стикаються.

Ця робота демонструє фактичне впровадження концепцій цифрової демократії у стратегії корпоративного управління через детальний аналіз корпорації BMN. У роботі наголошується на головних перевагах, труднощах та перспективах, пов'язаних із цією інтеграцією. Дослідження пропонує рекомендації щодо покращення корпоративного управління за допомогою інноваційних структур, які використовують відгуки клієнтів, діяльність із обміну файлами та спільне споживання корпоративних технологій.

Ключові слова: цифрова демократія, корпоративне управління, корпорація BMN, демократизація даних, спільне споживання технологій в компанії.

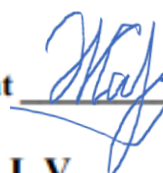**PHEE-institute «Ukrainian-American Concordia University»**

Faculty of Management and Business
Department of International Economic Relations, Business and Management

Educational level: **Bachelor degree**
Specialty   **073 – Management**
Educational program   **"Information Technology Management"**

APPROVED
Head of Department _____

__Prof. Zharova L.V.__
"11" May 2024

TASK
FOR BACHELOR'S QUALIFICATION WORK OF STUDENT

Anastasiia Kosharna

(Name, Surname)

1. Topic of the bachelor's qualification work

Models of Digital Democracy as the Basis of Management in the Combined Consumption of Corporate Technologies (based on the Business Media Network case).
Supervisor of the bachelor's qualification work Ruslana Seleznova, Ph.D. in Technical Sciences, Associate Professor at the Department of Information Technologies & Innovations.

(surname, name, degree, academic rank)

Which approved by Order of University from **"25" September 2023** № 25-09/2023-5к
2. Deadline for bachelor's qualification work submission **"25" April 2024.**
3. Data-out to the bachelor's qualification work

The study employs a mixed-methods approach, combining qualitative and quantitative research methods. It utilizes the Industry 4.0 Maturity Index as a foundational framework for evaluating digital maturity. Data collection methods include surveys, interviews, and analysis of secondary data from industry reports and academic literature.

4. Contents of the explanatory note (list of issues to be developed)

To review the concept of digital democracy and its relevance to modern governance and business practices; to identify key factors determining a company's readiness to implement data democratization; analyze the challenges faced by the company in implementing data democratization, focusing on cultural, technological, and regulatory barriers; and analyze the implementation of Digital Democracy concepts in the Business Media Network company.

5. List of graphic material (with exact indication of any mandatory drawings)

The work includes 12 figures and 2 tables with the relevant economical and statistical information.

6. Date of issue of the assignment

Time Schedule

№	The title of the parts of the qualification paper (work)	Deadlines	Notes
1.	I part of bachelor thesis	10.12.2023	On time
2.	II part of bachelor thesis	27.02.2024	On time
3.	Introduction, conclusions, summary	25.04.2024	On time
4.	Pre-defense of the thesis	30.04.2024	On time

Student

(signature)

Supervisor _____
(signature)

Conclusions (*general description of the work; participation in scientific conferences/ prepared scientific article; what grade does the student deserve*):

The student's research paper demonstrates a profound understanding of the theoretical and practical aspects of digital democracy. The first chapter's theoretical exposition offers a well-structured analysis of the concept, highlighting how it transcends political systems to suit business ecosystems. Empirical analysis in the second chapter is

particularly insightful. By exploring data democratization practices and assessing their implementation readiness, the student shows the challenges and opportunities that organizations face in adopting digital democracy principles. The case study on the Business Media Network Corporation highlights Anastasia's ability to analyze real-world scenarios and draw practical conclusions. The focus on file-sharing initiatives and leveraging customer feedback to innovate business processes brings the theoretical aspects of her research to life.

I should also mention Anastasia's significant effort in the preparation of a scientific article that explores digital democracy's implications more deeply within the organizational context. This article not only strengthens the academic credibility of her research paper but also offers a significant contribution to the broader discourse on digital governance in modern business.

Overall, the student is allowed to defend, the thesis meets all of the necessary requirements. The student deserves an excellent grade for her work.

Supervisor_____
                        (signature)

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INTRODUCTION

In the evolving landscape of global businesses and governances, digital democracy stands out as a transformative force, redefining our traditional models of interaction, decision-making, and information exchange. This Bachelor's Qualification Work analyses the dynamics of digital democracy concept formulation and integration, particularly within the sphere of corporate businesses` technology using. Therefore, I will be exploring how democratic principles can be integrated into the management strategies of our modern companies.

This whole concept of digital democracy goes far beyond the traditional boundaries of political systems, which normally would be associated with the word "democracy". Embodying a profound philosophical commitment to equality, collective decision-making, and individual dignity could be a goal in all of the spheres of our lives. The business sphere makes no difference. As companies start to navigate through the complexities of the digital age that the Industry 4.0 revolution has brought to us, understanding the role of digital democracy in it becomes crucial. This research also aims to reveal the theoretical foundations of digital democracy, investigating its impact on modern governance and its potential to revolutionize the way businesses operate and interact with their employees.

Therefore, **the relevance** of this study is emphasized by the rapid technological advancements and the changing patterns of work and communication in the Industry 4.0 revolution. Before, in an era characterized by appearing of computing technologies and new concepts, the democratization of information and public engagement have already become central themes for discussion. These changes were challenging traditional hierarchies and operating models, especially in sectors that are less flexible in adopting new practices. Nowadays, with the appearance of the necessity for having a sustainable business practice of the modern company, the digital democracy concept in business is a recently emerged and innovative topic. Therefore, studying the impact of digital democracy on business models, especially in the context of data democratization and the collaborative consumption of corporate technology, is timely and important.

In this context, the paper explores the complex relationship between digital democracy and business, analyzing the challenges and opportunities it creates. It will examine how the core values of digital democracy can be integrated into business ecosystems to foster a more ethical, sustainable, and participatory environment. The study will also explore the nuances of implementing digital democracy principles and the ways of overcoming technological, cultural, and organizational barriers then might occur in the process.

The aim is to assess the level of readiness among modern companies, particularly focusing on Business Media Network Corporation (BMN), to adopt data democratization practices. This involves evaluating the integration of digital democracy principles within corporate environments and identifying the challenges and opportunities arising from such integration.

Tasks Set to Achieve the Aim:

1. Review the concept of digital democracy and its relevance to modern governance and business practices.

2. Identify key factors determining a company's readiness to implement Data Democratization principles.

3. Analyze the challenges commonly faced by the companies while implementing Data Democratization within the organization, focusing on cultural, technological, structural, and regulatory barriers.

4. Analyze the implementation of Digital Democracy concepts in the Business Media Network Company.

In order to structure my work logically and coherently, every task set above will correspond to the relevant chapter. The first task regarding the review of the digital democracy concept will be completed in the first, theoretical chapter. The second task of the key factors determining a company's readiness to implement data democratization principles and the third task, regarding the challenges commonly faced by the companies while implementing data democratization, will be achieved in the second, analytical chapter. Finally, the third chapter will be based on a case study of Business Media Network Company and its implementation of digital democracy principles, including practical recommendations and a roadmap for future

development. Therefore, the research chapter will perfectly cover the forth task of analyzing the implementation of Digital Democracy concepts in the Business Media Network Company.

Methodological Basis for This Work:

The study employs a mixed-methods approach, combining qualitative and quantitative research methods. It uses the Industry 4.0 Maturity Index as a foundational framework for evaluating the digital maturity of a company in a research chapter. The data collection methods include surveys, interviews, and analysis of secondary data from industry reports and academic literature, as well as personal knowledge and experience gained from working in the Business Media Network Corporation.

The research object is the global business sector with a particular focus on companies that are moving toward digital democracy.

The research subject is BMN Corporation, used as a case study to explore the implementation of digital democracy principles within a corporate setting, particularly in the context of data democratization.

This bachelor thesis has an introduction, 3 chapters, a conclusion, and a list of references. Work is presented on 66 sheets, containing 2 tables and 12 figures. References include 62 credible literature sources.

CHAPTER 1. EXPLORING THE CONCEPT OF DIGITAL DEMOCRACY

1.1. Defining Digital Democracy: A Theoretical Expedition

First of all, democracy is far more than just some political systems and procedural mechanisms – it is a deep and fundamental philosophical commitment to equality, collective decision-making, and individual dignity. Democracy, in its very nature, is a socially evolved structure that interprets the social complexities and technological developments of its age, thus reflecting the hopes and problems of its time. The word democracy originates from the Greek words "demos" meaning people and "kratos" meaning power; hence, democracy may be interpreted as "power of the people": a style of governing that depends on the will of the people. (Council of Europe, 2024). In a digital age, this process allows for an even more active public realm where information can be shared to create a new democratic culture.

With the appearance of the Internet, our Web had 3 stages of development. Web 1.0 concentrated on accessing and reading information. Web 2.0 focuses on reading, publishing, producing, and connecting with the actual user. It was famously known as the participatory social web. Web 3.0 is the third version of the World Wide Web, and it represents a concept of a decentralized web that is presently under development. It's about writing, reading, and keeping (Geeks for Geeks, 2023). With the Internet development, the democracy concept had developed as well. Therefore, connected to the World Wide Web, democracy has become a digital democracy. The transition from a "read-only" Web, where the content was practically static and communication was one-way, to a "read/write" Web has set up the ground for digital democracy.

The paradigm of networked democracy was evolving, focusing on the principle of mass action and direct engagement of people through digital platforms. These changes forced us to reflect on the flow of these technological tools into the democratic process, which creates a balance between opportunities and risks, such as disinformation and digital vulnerability. The process of democratization is deeply linked to societal values and cultural diversity, suggesting that the meaning and implementation of democracy can vary considerably in different contexts (De George, Richard T, 1972).

In addition, contemporary challenges such as political polarization and the role of big money have contributed to the awareness of the need to rethink and perhaps redesign democratic institutions. Thus, philosophical discussions about democracy are not only concerned with the principles underlying democracy but also with the consequences of their implementation in the real world, which is steadily becoming more interconnected. These perspectives emphasize the need for regular dialogue between democratic theory and practice to keep democracy alive, adaptive, and inclusive.

However, Web 3.0 goes one step further by introducing the concepts of decentralization and blockchain, which are precisely aimed at transferring control to users rather than centralized structures. This transition will allow Internet users to have a secure and private platform to interact with Web 2.0, thereby reducing dependence on platforms that are currently centralized and dominant in this space. In addition, Web 3.0 is the integration of advanced technologies such as artificial intelligence and machine learning, making the ability to analyze and correlate data more meaningful, and therefore realizing the great dream of a smarter, more connected, and more personalized web experience.

In terms of digital democracy, the evolution of the Internet from 2.0 to 3.0 is clearly a profound change. The scenario foresees a trend towards a more decentralized and autonomous style of political participation, in which public debate and decision-making take place in the absence of traditional middlemen. This creates an opportunity to create a more balanced and open digital community, with a greater chance for a fair representation and discussion of different opinions and voices. The infrastructure for digital democracy is improving every day.

Digital democracy includes a variety of activities and tools that use digital technologies to increase the participation of community members in political processes. Recent developments in Europe demonstrate how digital technologies are now being used not only to complement traditional forms of participation but also to redefine them entirely (Nesta, 2024). New technologies are encouraging new models of citizen engagement, providing opportunities such as participation in drafting legislation and sharing ideas on platforms such as Loomio, Reddit, and Discourse. This approach aims to create a new relationship between citizens and government, where democratic processes are more accessible and better reflect the interests of the majority of the population.

However, the full realization of digital democracy comes with an additional set of challenges, including the quality and validity of decision-making. Within the framework of digital democracy, such efforts must apply the right approaches to evaluating their impact so that they can achieve their goal of promoting democratic participation. Although the idea is new, the need for a well-rounded definition of participation and an analysis of the possible deepening of existing political divisions due to the emergence of the digital divide is still unclear.

In addition, there has been a media revolution that has had a major impact on democracy. The declining role of traditional news in creating a unified public debate has been made possible by digital platforms performing better than ever before. This increased fragmentation creates polarization, which then makes it more difficult for democracy to create a unified public narrative as a foundation. The digital era has fostered the distribution of user-generated content and made the distinction between professionals and amateurs disappear while increasing the opportunities for the spread of disinformation. This transformation poses serious challenges for democracy, as a shared understanding of facts and collective perception of issues is a fundamental cornerstone for effective political participation and public trust.

While the actual activities and impact of digital democracies vary greatly from region to region and society to society, they are very different. For example, during the Arab Spring, students used social media as a communication tool to plan their resistance movement, demonstrating the power of digital platforms to transform and mobilize the political process (BBC News, 2014). In contrast, all around the world e-voting has proved to be a tool for improving electoral processes to make them more reliable and efficient, thus demonstrating the advantages of technology over traditional democratic means.

After all, the concept of digital democracy is an innovative way of rethinking the traditional values of democracy, embracing the role of the Internet in building an inclusive, participatory, and transparent society. Despite the challenges, such technological progress is crucial for the survival of the idea of equality.

1.2.   Digital Democracy in Modern Governance

Digital democracy in modern governance as a concept emerged in the 21st century. It is a revolution in which technology is used in the democratic processes of the state system. This is a double-edged sword. On the one hand, it threatens the system that existed before and certainly worked. But on the other hand, it opens up new and great opportunities that state institutions have never had before.

Before we would start looking at different countries and their implementation of digital democracy principles, for the whole picture we should take a look first at the Democracy Index by regime of the countries in 2023 (Fig.1.1). The index is a direct measurement of a readiness of a country to implement digital democracy principles. If the country is authoritarian, it is not even located on a democracy level of development, not no mention the digital democracy.
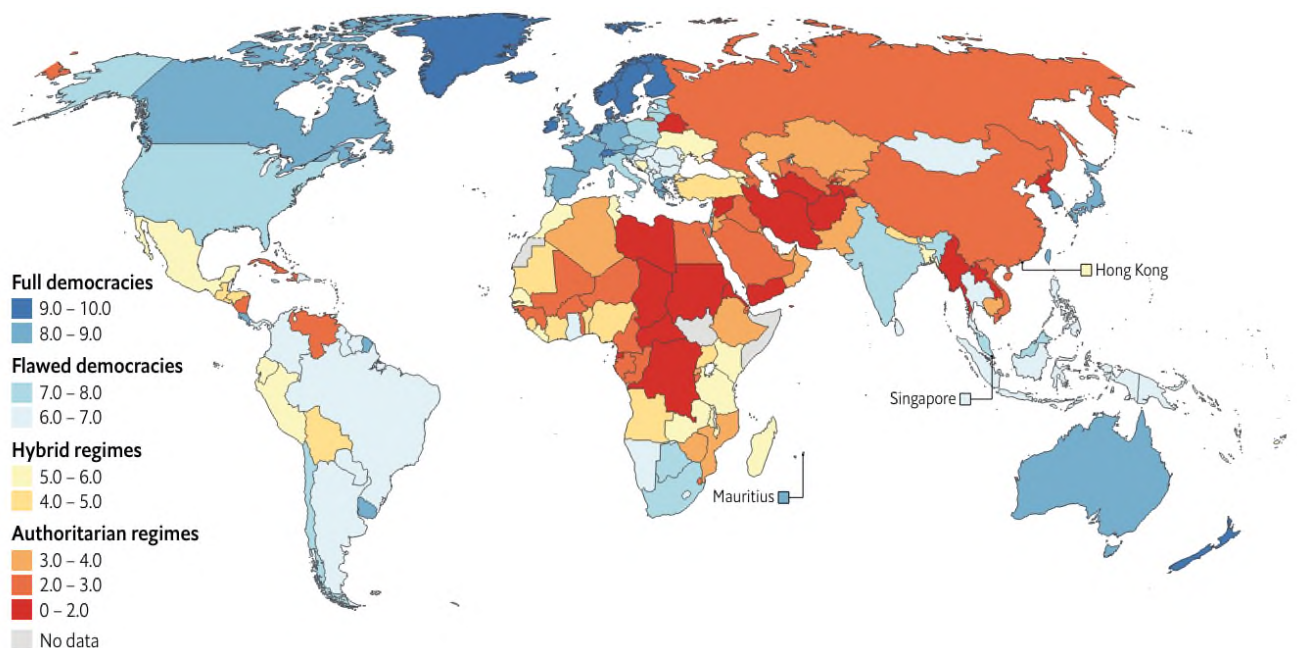

Fig. 1.1 (Democracy Index 2023, global map by regime type)

Source: based on The Economist Intelligence Unit Limited 2024

As we can see on a map, full democracy is achieved only in Norway, Sweden, Finland, Denmark (Greenland) and New Zealand. They are followed by the other countries of European Union, Australia, North and South America. The Asian countries mostly have authoritarian

regimes (except for South Korea and Japan) as well as African ones. Considering this, we might look on a Table 1.1 that shows the use of E–Government Development Index worldwide by country in 2022.

Table 1.1

E-Government Development Index worldwide by country in 2022

Country	E-Government Development Index
Denmark	0.97
Finland	0.95
South Korea	0.95
New Zealand	0.94
Sweden	0.94
Iceland	0.94
Australia	0.94
Estonia	0.94
Netherlands	0.94
USA	0.92
United Kingdom	0.91
Singapore	0.91
United Arab Emirates	0.9

Source: based on E-Government Survey 2022

The E-Governance Development Index measures the level of use of information and communication technologies by countries to deliver public services. The index assesses the availability and quality of online services, telecommunications, and human capacity. It is an analytical indicator used worldwide to track the progress of digital government in different countries (United Nations, 2022). And we see here that Denmark is the most successful country in implementing digital democracy principles. It is followed by Finland and South Korea.

Considering the examples above, what do such progressive political systems have in common? E-voting. The expression "e-voting" is synonymous with the use of electronic tools for recording or counting votes. It can also range from autonomous machines to systems that allow voting over the Internet, commonly known as online voting (International IDEA, 2011). Online voting is designed to make the electoral system more efficient, accessible and secure, subject to the highest security measures. E-democracy does not end with e-voting, but includes a set of tools and platforms that help people to manage their political power more easily, access public information and communicate with authorities and others. The link between e-voting and digital democracy is thus direct. It significantly improves participation and makes the democratic process more accessible and transparent. An e-voting solution promotes engagement by making voting easier and more accessible.

Today we have different kinds of e-voting, and below I will explain how the most popular ones work:

- Direct Recording Electronic Voting Machines: These devices directly store votes in their memory. They usually display the ballot choices to voters on screen and they vote by selecting the options directly on the machine, which could be a touch screen. Some systems have a voter-verified paper audit trail that prints out a paper that is reviewed by the voter before confirming the vote. This paper slip can be used for auditing and checking out the electronic vote in case of some discrepancies or dissents (Congressional Research Service, 2007).

- Online Voting: The system enables voting from any location through the Internet (International IDEA, 2011). With this, the level of accessibility is greatly enhanced, especially for disabled persons and people living abroad. On the contrary, it opens the entire voting process to a variety of cyber-attacks and fraud possibility.

- Optical Scan Voting Systems: Voters fill out their choices on paper ballots and those ballots are then scanned by a computer machine. This approach blends the strengths of paper ballots with those of electronic counting. The paper ballots are the physical vote records that can be used for recounts or audits in case they are needed (ACE project).

Voting electronically can make the voting process more accurate by excluding manual counting errors, speeding up the counting of results, and increasing accessibility. On the negative side, it gives opportunities to the accompanying security risks including hacking vulnerabilities, software bugs, and other types of cyber threats. Additionally, there are other concerns like voter privacy, the possibility of technical problems, and the loss of the traditional secrecy of the ballot.

Different levels and combinations of e-voting systems can be found in progressive countries. To have a better knowledge in such, below are the two examples.

Denmark is currently the leader in the competition. Over the course of 60 years, all 90.997 Copenhagen citizens had the option of voting digitally or traditionally by post. As a result, at the start of the election period, all voters were given a physical ballot paper, as well as a franked envelope. Voters who have signed up for digital mail received a digital letter including a link to the ballot. Even if you were not enrolled for digital mail, you may still vote electronically using the accompanying guidance in the physical letter (Assembly Voting, 2021).

In Germany, the situation is not so successful. The use of DRE voting machines suffered a setback when the Constitutional Court banned them because there was less scrutiny from the public who were supposed to vote. However, the court did not rule out e-voting entirely suggesting that it could be permissible with better transparency or legislation adjustments (E. J. Sebes, 2023).

Except for e-voting systems, countries with a high digital democracy concept implementation also do integrate the principles of equality into other spheres and even countries of poor citizen`s engagement with decision-making powers.

For example, the United States Agency for International Development recognizes the challenges and opportunities associated with digitalization for democracy and has launched new initiatives under the Presidential Initiative for Democratic Renewal to offer support for democratic development around the world. These efforts are aimed at creating a platform for self-governing media, fighting corruption, and empowering democratic reformers and human rights defenders. They symbolize a collective effort to use digital technologies to promote open, efficient and participatory systems of governance. An illustration of this type of digital

democracy in action is the USAID Digital Democracy Initiative, which aims to develop open, secure, and inclusive digital societies that protect democratic values and human rights. This innovative program has been tested in regions such as Serbia and Zambia, with plans to add similar innovative programs in Africa, Asia, Europe, and Latin America (USAID, 2024).

In addition, initiatives such as the one presented by Nesta provide insight into how digital technologies are changing political participation at all levels of government. For example, Brazil and France have introduced online platforms that allow citizens to participate in the formation of the legislature, therefore increasing transparency and encouraging public input into the law-making process. These trends are also evident in parties such as Spain's Podemos and Iceland's Pirate Party, which use Loomio, Reddit and Discourse to facilitate discussion and policy-making among their members and the general public. These tools facilitate greater citizen participation and lead to improved quality and legitimacy of decision-making, indicating a shift from formal top-down governance structures to more responsive and inclusive ones (Nesta, 2024).

But, what about Ukraine? Surprisingly, digital democracy in Ukraine has been slowly gaining popularity through a variety of electronic initiatives, especially the Diia platform. The country has begun its road to digital transformation even before the war with Russia began, with the goal of having all government services digitized by 2024, although coming across significant challenges as a result of the military conflict in eastern Ukraine since 2014. Some ambitious targets remain in place, such as bringing all government services online and developing technological skills for millions of Ukrainians (Ukrainian Ministry of Digital Transformation, 2020).

Diia, the e-platform operated by Ukraine's central government, means "action" in English. This ecosystem includes the Diia mobile app, which holds digital documents and public services, as well as other initiatives that focus on promoting digital literacy, assisting SMEs, and creating an enabling environment for IT businesses. Currently, almost half of Ukrainians use the Diia app, which provides services such as digital IDs and driver's licenses (Fig 1.2). This technology played an important role during the armed conflict by providing critical evacuation documentation, damage reports, and live information through connection with radio/TV services.

Considered as a platform of global standards for e-government, Diia is an example of how to organize public services in a more human-centered style. This modification in strategy has caused bureaucracy to reduce and become far more open, making it more difficult to perform corrupt activities using it. Furthermore, despite the war, this initiative has played a crucial role in maintaining communication connections with the people and supplying them with essential services, demonstrating Ukraine's digital governance efforts are robust and creative.

Not only have these projects helped to keep essential government activities running during this moment of uncertainty, but they have also established standards for global digital democracy.
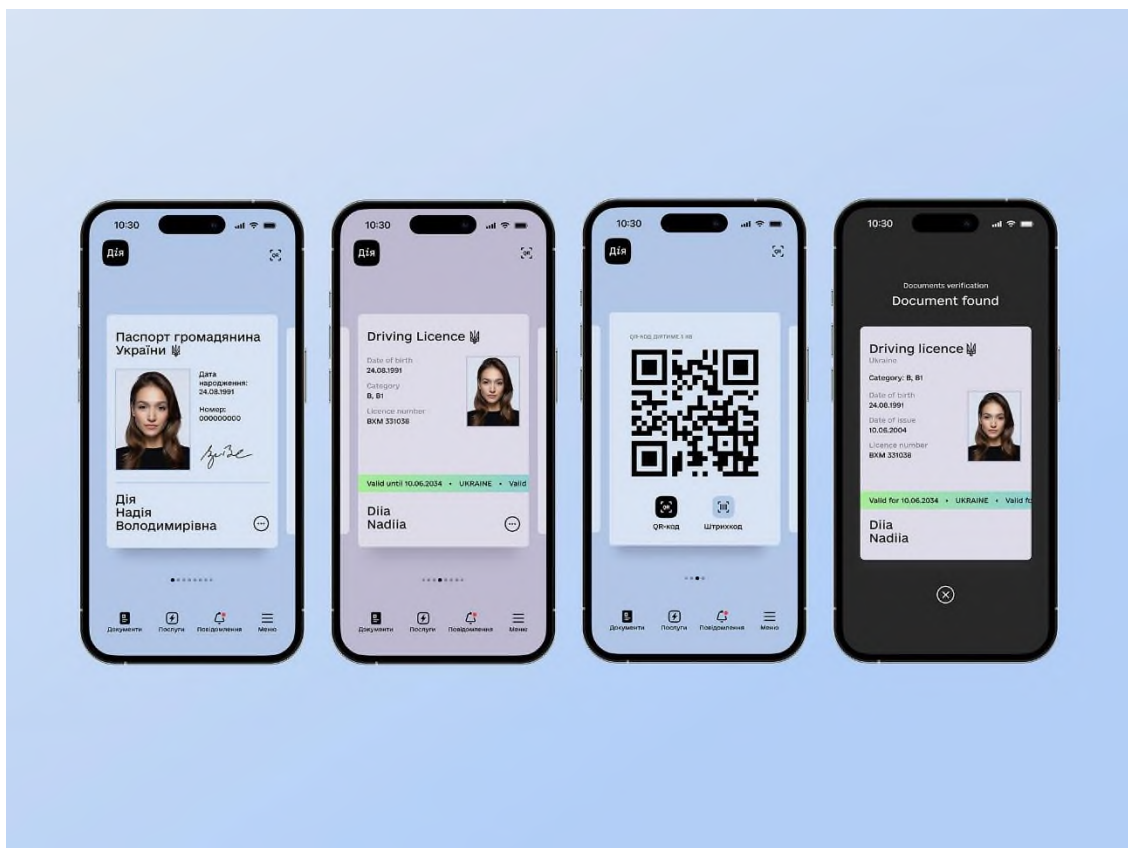

Fig.1.2 (The design of Diia application)

Source: based on UX design awards

In the constantly evolving landscape of technology and innovation, Ukraine's revolutionary Diia platform is leading the effort to transform the country's digital ecosystem, particularly in the area of e-governance. The recent Diia Summit in 2023 presented a number

of innovative digital services aiming at bridging the digital divide and delivering government services straight to consumers' hands by 2024. This progressive platform has been upgraded several times, bringing game-changing features such as expedited automobile re-registration, effortless online exchange of housing certificates for individuals impacted by conflict, and specialist e-services catering to entrepreneurs. The Diia platform has transformed into a flexible super-app for daily use, with a smart modern user interface and a range of helpful capabilities, including a customized content feed and real-time news updates, as well as engaging polls to keep users informed and engaged (Diia Summit, 2023).

In tandem with these developments, the Ministry of Digital Transformation has launched an innovative educational course on the Diia.Education platform. This comprehensive curriculum is designed to provide individuals with the skills and expertise required to create appealing digital solutions, leading them through the whole development process from idea to implementation. The training, targeted at a varied audience ranging from local activists to public sector professionals at all levels, is a critical step toward supporting regional digital transformation, which is a key emphasis for the ministry.

These outstanding efforts demonstrate Ukraine's persistent dedication to digital democracy and the remarkable advancements that have been made in implementing inclusive e-governance solutions, despite external obstacles. The future of digital transformation in Ukraine is brighter than ever, with the Diia platform leading the way in generating significant change and innovation for the benefit of all.

So, digital democracy nowadays is used in governments on different levels. Some of them are deeply committed to the idea of such innovation while others are more resistant. But we will continue to look at digital democracy principles in areas that are less connected with politics, but rather have more commercial roots.

1.3. Digital Democracy Principles in Business

The concept of democracy principles within the business ecosystem goes beyond the traditional political framework. In a business, the values of a company usually plays the crucial role in implementing new practices. The key values that a company would want to implement

(if it wants to be considered as a digital democratic) are as follows: transparency, inclusivity, accessibility, and participation. Below I explain such values in more detail.

Transparency is essential in digital democracy, as it involves businesses being open and honest about their operations, decisions, and practices. By sharing information openly, businesses can build trust with various stakeholders such as customers, employees, and partners. This level of transparency not only includes financial disclosures but also extends to showcasing the social and environmental impacts of business operations. By embracing transparency, businesses can enhance accountability, build a loyal customer base, and improve their overall corporate image. Such value could be seen in a model of digital democracy that is called data democratization. However, about data democratization I will talk in detail in the second chapter.

Inclusivity plays also a crucial role in fostering innovation within businesses. By ensuring that individuals from diverse backgrounds have opportunities to contribute and participate in the decision-making process, companies can benefit from a wide range of perspectives. Embracing inclusivity can lead to creative solutions for complex problems, drive innovation, and help businesses tap into new markets and customer segments. Inclusivity also means that employees have the necessary level of data literacy, as we are talking about digital democracy.

Accessibility is another key pillar of digital democracy in business. Ensuring that digital resources are easily accessible to everyone, regardless of technical skills, physical abilities, or socioeconomic status, is essential. By designing user-friendly websites, applications, and digital tools that comply with accessibility standards, businesses can expand their reach, enhance customer experiences, and improve overall satisfaction. In other words, it means that the technical aspect of a companies` resources should be seen as of high priority.

Last but not least, participation is about empowering employees to actively engage in business decision-making processes. This can be achieved through various means such as online surveys, feedback mechanisms, and collaborative platforms for the co-creation of products and services. By encouraging participation, businesses can benefit from valuable insights and wisdom from a broader audience, leading to better decision-making, enhanced loyalty, and advocacy.

In the realm of political participation, digital democracy tools are reshaping how citizens interact with governments. Initiatives across Europe and beyond are allowing communities to engage meaningfully in political processes, influencing legislation and resource allocation. By adopting the right tools and strategies, businesses can facilitate more inclusive decision-making processes, contributing to a stronger connection with stakeholders and a more transparent and accountable business environment. One notable example of digital democracy from a government initiative that is helping businesses in action is the "Diia. Open Data" initiative in Ukraine. This program aims to promote transparency, innovation, and economic development by making government data accessible to businesses, startups, journalists, and the public. By providing free access to data, companies can leverage this information to make informed decisions, improve operations, and create new opportunities (Diia App, 2024). So, the interconnection between government digital democracy and business` one do exist. Used in a collaborative way such as in the example above, it would only benefit the both interested parties.

The landscape of digital democracy in business is at a pivotal moment, characterized by a presence of tech innovations, shifting stakeholder expectations, and a growing demand for transparency and inclusivity. As we dive deep into the future, a mix of some of the emerging trends will have an impact on how businesses will be working.

So, emerging trends in the digital democracy that I would predict are as follows:

- The appearance of AI, blockchain, and Internet of Things in digital democracy frameworks is undoubtedly close. It promises to revolutionize decision-making, boost transparency, and data integrity. These tools have the potential to facilitate instant stakeholder involvement and help to simplify the whole processes, reshaping the very dynamics of business-stakeholder interactions.
- Blockchain, in particular, presents an intriguing prospect for decentralized governance models, where decisions can be made fully democratically. This paves the way for fairer, more participatory business landscapes, where stakeholders have direct influence over their interests.
- Businesses are also increasingly would use the social media platforms as avenues for real-time feedback, stakeholder interaction, and participative decision-

making for the customers. This evolving trend blurs the boundaries between enterprises and their communities, fostering a deeper sense of collaboration.

However, every technical innovation has its other side of the coin. Despite the many benefits of digital democracy in businesses, there are also some barriers to overcome. Cybersecurity threats, misinformation, and algorithmic biases pose challenges that must be addressed. For instance, for a company dealing with misinformation on social media platforms is crucial to maintaining trust and engagement with stakeholders.

Therefore, we have to take into consideration such challenges:

- Ensuring the security of stakeholder data emerge as critical point. Navigating the between transparency and guarding confidential information would be extremely important for business integrity.

- Misinformation poses a significant threat to the credibility of digital platforms. So, establishing mechanisms for verifying information is a vital step to keep the trust in it.

- Achieving inclusivity in digital democracy initiatives mandates bridging the digital division that marginalizes certain stakeholder groups (for example, investors from 3rd countries). Businesses must strive to make digital participation tools universally accessible, irrespective of socioeconomic status or geographic location of a stakeholder.

In the end, the implementation of democratic principles in the business ecosystem highlights a revolutionary change away from traditional frameworks and toward a more inclusive, transparent, and participatory model. The route ahead is complicated, but with the correct effort and strategic thinking, firms may maximize the potential of digital democracy and create an ethical and sustainable corporate environment.

CHAPTER 2. ANALYSIS OF DIGITAL DEMOCRACY AS BASIS OF MANAGEMENT: DATA DEMOCRATIZATION

2.1.   Benefits of Data Democratization

What is the best scenario for business? When it is profitable. Digital democracy and, in our case, data democracy help to achieve this desired goal. I choose data democratization as the main model of digital democracy as the basis of management. The reason for that is that the literature indicates that transparency, a core principle of digital democracy, can lead to enhanced profitability. For instance, studies have shown that companies that disclose more information tend to reduce investor uncertainty and attract more investments at a lower cost (Bushman, Piotroski, & Smith, 2004). Furthermore, digital platforms enable real-time feedback and engagement, which can lead to improved customer satisfaction and retention, ultimately impacting the bottom line positively. When you see an immediate reaction from a customer to your product, you can conclude what to improve or enhance. As a result, we have satisfied customers and a profitable working business. Such a response is happening because of increased brand loyalty. It is significantly influenced by inclusivity and participation. Companies that engage customers in decision-making processes, often through digital platforms, tend to foster a stronger emotional connection with their brand. This participatory approach can transform customers into brand advocates, enhancing loyalty and reducing marketing costs.

Digital democracy principles align closely with sustainable business practices as well. When companies are transparent about their operations, policies, and impacts, they hold themselves accountable to their stakeholders, including employees, customers, investors, and the community at large. This openness is crucial for corporate social responsibility, as it allows for the monitoring and reporting of a company's environmental and social impacts. For example, by openly sharing data on carbon emissions, waste management, and labor practices, companies can demonstrate their commitment to sustainability and ethical standards. This transparency not only builds trust with stakeholders but also motivates businesses to improve their practices continuously, knowing they are under public scrutiny.

Inclusivity and accessibility are fundamental to both digital democracy and sustainable business models. Ensuring that products, services, and information are accessible to a diverse range of people, including those with disabilities, different age groups, and various cultural backgrounds, reflects a commitment to equity and social sustainability. This approach leads to the creation of products and services that are more universally usable and environmentally considerate, reducing waste and increasing the longevity and relevance of products. Moreover, inclusive design processes that take into account the full spectrum of human diversity result in innovations that benefit society as a whole, aligning with the principles of ethical and sustainable business practices.

Participation ensures that the voices of all stakeholders, including employees, customers, and the community, are heard and considered in the decision-making processes of a company. This democratic approach aligns with sustainable business practices by ensuring that business operations and strategies are reflective of the needs and values of the broader community and environment. Engaging with stakeholders allows companies to understand the social and environmental impacts of their actions and to collaborate on more sustainable and socially responsible solutions. For instance, by involving local communities in discussions about resource use or environmental conservation, businesses can make more informed and ethical decisions that support both the company's and the community's long-term well-being.

The approach can also bring several benefits to the shareholders of a business, who are primarily interested in the value and success of the company. When everyone in a company can use data, the company can react faster to changes in the market, like new trends or customer needs. This quick response can give the company an edge over competitors, making it more successful. Shareholders usually like to invest in companies that can adapt quickly because it means the company can continue to grow and remain relevant. When shareholders have access to more information about the company's operations, performance, and challenges, they can have a clearer understanding of where the company stands and where it's headed. Trust is very important for shareholders because it makes them more confident in their investments.

So, when deciding whether to invest in a company or buy more shares, shareholders look at how well the company is doing and how well they think it will do in the future. Data democratization can be a positive sign for shareholders for several reasons (Fig.2.1).

Data democratization as a positive sign for shareholders

It suggests the company values transparency and good decision-making
It indicates the company is likely performing well or has the potential to improve
It shows that the company is prepared to manage risks and adapt to changes

It shows that the company is prepared to manage risks and adapt to changes

It suggests the company values transparency and good decision-making

It indicates the company is likely performing well or has the potential to improve
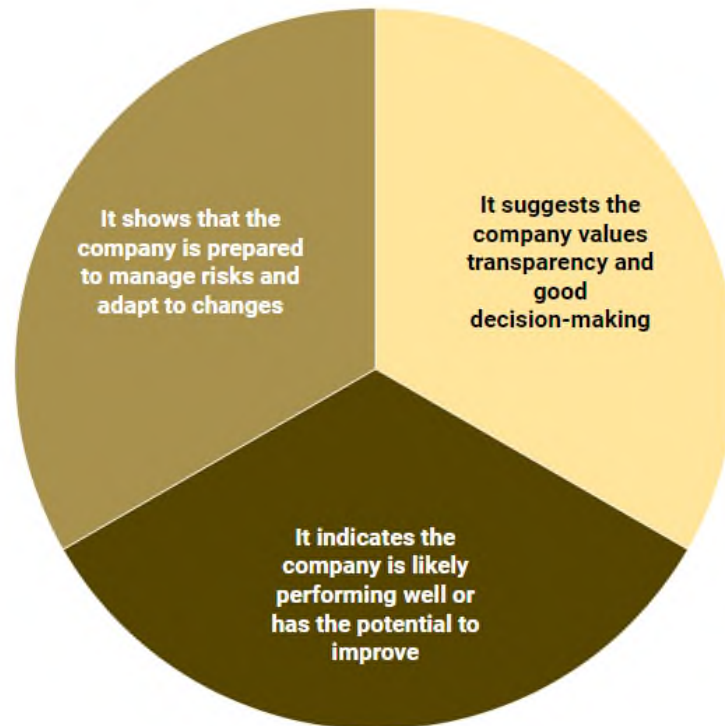
Created with Datawrapper

Fig. 2.1 (Data democratization as a positive sign for shareholders)

Source: authors' own diagram

If shareholders see that a company practices data democratization, they might view it as a more attractive investment compared to companies that keep data locked away. On the other hand, if a company lacks data accessibility and transparency, shareholders might see this as a red flag and choose not to invest or sell their shares. In simple terms, data democratization can make a company look like a smarter, safer, and more promising investment to shareholders.

On a more or less internal level, data democratization helps employees by simplifying their everyday work. When employees have direct access to data, they can make informed decisions quickly. For example, a marketing team member can analyze customer engagement data to tailor campaigns without waiting for reports from the data analysis team. Data democratization eliminates the time-consuming process of requesting data from another

department and waiting for their response. Instead, employees can directly access the information they need, when they need it. This significantly speeds up workflows and projects.

Also, employees feel more valued and empowered when they can access and interpret data themselves. It shows that the company believes in its employees' ability to handle and interpret data responsibly. This level of autonomy encourages employees to take ownership of their roles and decisions. When people feel trusted and autonomous, they are more likely to take initiative, innovate, and seek out solutions independently, which enhances their job satisfaction and motivation. Employees who feel competent and capable of making informed decisions are likely to experience lower levels of stress and higher job satisfaction.

When employees understand how their actions impact overall business outcomes, they are more likely to make decisions that align with the organization's strategic objectives. This alignment is crucial for efficient resource allocation and minimizing wasted effort, both of which contribute to cost reduction and improved organizational performance. Understanding the company's strategic objectives helps employees distinguish between tasks that are essential for success and those that are not. This clarity can significantly reduce wasted effort on low-priority activities, freeing up time and resources for initiatives that directly contribute to key business outcomes. For example, a product development team might decide to deprioritize features that do not align with customer needs or business goals, focusing instead on those that do, thereby enhancing product value and market fit.

Furthermore, data democratization can lead to significant cost reductions by streamlining data access and reducing the workload on IT departments. Traditionally, when data is siloed or restricted to certain departments, accessing data can be a time-consuming process, involving multiple requests, approvals, and potential delays. This not only slows down decision-making but also places a heavy workload on IT departments, which are responsible for managing, processing, and providing access to data. Data democratization eliminates many of these hurdles by providing universal access to data through self-service platforms and tools. Employees can retrieve, analyze, and use data independently, without the constant need for IT intervention. This reduces the time and resources spent on routine data requests and frees up IT professionals to focus on more strategic tasks, such as improving cybersecurity measures, enhancing system infrastructure, or developing new technological

capabilities. IT departments often find themselves overwhelmed with data-related requests from various departments, from simple data retrieval to complex analysis. Data democratization, facilitated by self-service analytics and user-friendly platforms, significantly reduces this demand. Employees across the organization can perform their data queries and analyses, leading to a more evenly distributed workload and preventing IT bottlenecks. Moreover, by reducing the reliance on IT for everyday data needs, organizations can avoid the costs associated with hiring additional IT staff or outsourcing data management tasks. This can result in substantial savings, particularly for large organizations or those with extensive data needs.

Therefore, by enabling employees to access and interpret supplier data directly, the organization not only streamlines the decision-making process but also reduces the time and stress associated with waiting for data to be provided by another department or data specialists. This level of autonomy in data access and analysis leads to more efficient operations, quicker responses to market demands, and a more agile organizational structure. In essence, data democratization fosters a culture where information is a shared asset, empowering individuals at all levels to contribute to the organization's success through informed decisions.

2.2.   Data Democratization Concept implementation: an overview

Data democratization is not a new concept but it has gained a new momentum with the advent of big data technologies, artificial intelligence and cloud computing. Therefore, let`s take a look at a Table 2.1 which explains the state of big data/AI adoption in organizations worldwide from 2018 to 2023. In 2018 and 2019, the progress of adaptation was highly evident. In 2020 it took a pause and even reduced because of the challenges that the pandemic had brought to us. It is not usual, because ordinary the pandemic stimulates digitalization for the reason that everyone is working remotely. That could be explained that however the obstacles, in some companies initially data was siloed, accessible only to IT professionals and data scientists. The democratization movement began as businesses recognized the value of making data accessible across all levels of the organization. This shift mirrors broader societal movements towards transparency and inclusivity, underpinned by technological

advancements that have made data more accessible than ever before. At its core, data democratization refers to the process of making data accessible to non-specialists without compromising data security and privacy. It involves removing gatekeepers, simplifying access through user-friendly tools, and ensuring that all employees have the information they need to make informed decisions.

Table 2.1

State of big data/AI adoption in organizations worldwide from 2018 to 2023

Characteristic/ Year	Managing data as a business asset	Established a data culture	Driving innovation with data	Competing on data and analytics	Created a data-driven organization
2018	46.9%	28.3%	59.5%	47.6%	31%
2019	50%	26.8%	64.2%	45.1%	37.8%
2020	39.3%	24.4%	48.5%	41.2%	24%
2021	39.7%	19.3%	56.5%	47.4%	26.5%
2022	39.5%	20.6%	59.5%	40.8%	23.9%
2023	49.1%	42.6%	77.6%	50%	48.1%

Source: based on Big Data and AI Executive Survey 2024

However, before data can be democratized, an organization must establish a clear data governance framework. This framework should define who is responsible for managing different datasets, outline data access policies, and set standards for data quality and security and how the desirable outcome could be achieved.

Democratizing data requires the right technological infrastructure. This includes investing in data management platforms, cloud services, and analytics tools that are user-friendly and can accommodate the needs of non-technical users. To be more detailed, the company could consider using data management platforms, self-service analytics and business intelligence tools, as well as data integration and ETL tools (Extract, Transform, and Load), data catalogs and metadata management, data governance and compliance software:

- Speaking about data management platforms, we have here centralized data warehouses and data lakes: these platforms serve as the foundational storage

systems where data from various sources is stored and managed. A centralized data architecture ensures that data is accessible and consistent across the organization. Data warehouses are optimized for analyzing structured data, while data lakes can handle structured, semi-structured, and unstructured data, offering greater flexibility. Centralized systems reduce data silos, ensuring that employees have access to the same data, which promotes unity and accuracy in decision-making. However, such an approach can be much less effective that the other ones for the reason that the company decides on what data they actually would like to share. If the company is honest with its employees, I do not see a problem. But it does not happen too often, companies can use such type of technology to assure employees and shareholders of its perfect image. So, having a centralized data warehouse is a bit questionable in its effectiveness.

- Now we are moving on to the self-service analytics and business intelligence tools. Here we have friendly BI Tools: Platforms like Tableau, Power BI, and Qlik Sense allow users to create reports, and dashboards, and visualize data without extensive technical knowledge. These tools come with simple interfaces, templates, and intuitive design features. Self-service BI tools empower non-technical users to explore, analyze, and share data insights without depending on IT or data analysts. That means that implementing such technology will help employees share their information and data.

- As for the data integration and ETL Tools, technologies like Talend, Informatica, and Apache NiFi help organizations integrate, process, and transform data from various sources into a format suitable for analysis and reporting. Data integration tools ensure that data from diverse sources can be combined and made available in a unified format.

- Of course, companies will also have to be sure that their data is protected properly. Data governance tools ensure that data is not only accessible but also secure, compliant with regulations, and used responsibly, balancing openness with privacy and security. Examples of such platforms are IBM's Data Governance, SAP Master Data Governance, and Talend Data Fabric.

- Cloud computing services like Amazon Web Services, Microsoft Azure, and Google Cloud Platform facilitate data democratization by providing on-demand access to vast computing resources, making it easier for organizations to scale their data initiatives without significant upfront investment in physical infrastructure.

Therefore, investing in the right technology for data democratization is about more than just purchasing tools; it's about creating an ecosystem where data is accessible, understandable, and usable for everyone. By carefully selecting and integrating these technologies, organizations can remove barriers to data access and empower their workforce to leverage data.

For data democratization to be effective, all members of the organization need to have a basic understanding of data and analytics as well. Providing training and resources to improve data literacy helps ensure that employees can make the most of the data available to them. This includes understanding how to interpret data, recognize patterns, and make informed decisions based on data insights.

Also, it would be perfect to foster a culture of collaboration and open communication. Encouraging teams to share insights, collaborate on data projects, and provide feedback can help to break down silos and leverage the collective expertise of the organization. A collaborative culture supports the idea that data is a shared asset that can drive collective success.

Finally, it's important to monitor and measure the success of data democratization initiatives. This involves tracking metrics such as user engagement, data quality, and the impact of data-driven decisions on business outcomes. Regularly reviewing these metrics can help organizations identify areas for improvement and ensure that data democratization efforts are meeting their objectives. Implementing data democratization is a complex but rewarding process. By establishing clear governance, investing in technology, promoting data literacy, fostering collaboration, and monitoring success, organizations can unlock the full potential of their data and drive meaningful business outcomes.

As for the democratic initiatives themselves, one of the most popular approaches is the voting for a manager. While some organizations already select their managers through

democratic processes, conducting an election that meets the criteria for fairness and justice is far from straightforward. In small teams, making a quick decision on leadership might be manageable. However, in larger, more complex organizations, this process becomes significantly more difficult due to such factors:

1. Elections that are performed manually demand considerable time and resources efforts, making them very expensive. This is because poll workers, and ideally, poll observers, must be present to oversee the voting process. Additionally, employees must allocate time to visit a physical polling location to cast their vote.

2. In larger organizations, particularly those that are spread across different geographical locations, it may be challenging, if not impossible, for all employees to have a thorough understanding of all candidates. This complexity makes it difficult for candidates to personally present their platforms and ideas to every employee.

However, there are already electronic voting systems available that are trusted and have been proven to comply with such requirements. Digital voting enables employees to cast their votes with just a few clicks, regardless of their location. This approach significantly reduces the need for extensive monitoring, as one or a few impartial specialists can oversee and ensure the integrity of the election process.

Except for e-voting, there are also other digital democracy initiatives that could be implemented in a business environment:

- Referendums: This approach allows employees to submit proposals for changes they wish to see within the organization. If these proposals gain majority support from the workforce, the management is obligated to implement them. This mechanism ensures that ideas with wide employee backing are recognized and acted upon by the organization's leadership. Such approach is used regards the most serious concerns.

- Petitions: In such initiative, employees have the right to initiate petitions calling for specific changes. If these petitions achieve a predefined level of support from the organization's workforce, management must review and publicly respond to

them, outlining their content and intended actions regarding the issues raised in the petition. It is used for a less serious but still important issues.

- Advice Process: This method enables employees to propose changes or innovations they believe would benefit the workplace. They are encouraged to discuss these ideas with colleagues who have expertise in the relevant areas. If an idea gains sufficient support, it can be advanced by the individual who proposed it, even if they do not hold a formal position of authority.

These mechanisms allow for customization based on the organization's needs and constraints. For instance, certain types of decisions (like large investments) could be exempt from these processes. Additionally, the approval of specific executives or teams might be required before a proposal is officially submitted, and management could have varying degrees of power to override decisions made through these democratic processes.

Last but not least, a company could also implement the electronic participatory budgeting. It is a method employed in various political settings, such as the city of Belo Horizonte in Brazil (Sampaio, 2011). This approach can be directly adapted to the corporate environment, providing a structured way for employees to contribute to financial decision-making. In implementing such initiative within an organization, a dedicated budget could be established specifically for a specific purpose. The company can then set up an online platform where employees are encouraged to propose how this designated budget should be spent. This method allows for significant flexibility and can be tailored to different scopes and scales, such as applying it across the entire organization, within specific branches, or at the departmental level.

Moreover, the topics for budget allocation can vary widely, ranging from minor expenditures like office supplies to significant, strategic investments affecting the company's future direction. The management team has the option to determine the extent of their involvement in the final decision-making process. They might choose to retain ultimate control over the final decisions, or they could fully democratize the decision-making process, letting the majority employee vote dictate the allocation of funds. The adaptability of the approach makes it an exceptionally straightforward tool for making financial decisions. It can be customized to fit the unique needs and goals of different use cases within the organization. For

instance, parameters can be set regarding the types of projects eligible for funding, the minimum or maximum amount of money that can be requested, and the criteria for evaluating and selecting proposals.

The above mentioned approaches, along with various modifications or combinations, can be effectively digitized and integrated into the workplace. Digital platforms can enhance the advice process by ensuring proposals are thoroughly reviewed, as all employees can view, vote on, and provide feedback on each proposal online. Similarly, digitalization can simplify the conduct and tracking of referendums and petitions, especially in large organizations, making these democratic processes more accessible and transparent to all employees. This digital approach not only simplifies the process but also ensures broader participation and engagement, fostering a more inclusive and democratic organizational culture in a company.

2.3.   The Capability of Today's Companies to implement Digital Democracy Principles within the organizations

The integration of digital democracy principles varies widely among industries and individual companies. In sectors such as technology and finance, there is a more pronounced move towards these practices, often facilitated by existing technological infrastructures and a culture that values innovation and openness. Conversely, in more traditional sectors like manufacturing or energy, the shift may be slower due to entrenched hierarchies and operational models. This is the main idea that we should understand before going into an in-depth analysis of the capability of a company to implement digital democracy principles within itself.

The specific research on the topic of integration of digital democracy principles within organizations simply does not exist yet. However, I reviewed the only study with a similar research question, "What is the level of readiness among industrial companies to adopt data democratization practices?". A comprehensive evaluation was conducted by Tobias Harland, Christian Hocken, Tobias Schröer, and Volker Stich in the Article named "Towards a Democratization of Data in the Context of Industry 4.0". This dataset contains the outcomes from 259 global factory assessments, framed within the Industry 4.0 Maturity Index guidelines. These assessments span from 2017 to 2021, providing a broad perspective on the

digital maturity landscape across diverse sectors, with a particular emphasis on the automotive, medical, and food and beverage industries.

The Industry 4.0 Maturity Index serves as a foundational framework in this analysis, emphasizing that a factory's digital maturity should evolve across four critical dimensions: IT systems, resources, organizational structure, and corporate culture. These elements are considered structuring forces that need to progress in harmony for a factory to achieve its maximum digital potential. So, these key factors determining a company's readiness to implement data democratization are named Data Quality and Decision Support, Innovation Process and Decision Power, Knowledge Sharing and Decision-Making. The key findings of the study were as follows:

- Data Quality and Decision Support: Many companies lack the necessary data quality for automated processing, with over 75% of factories not reaching the target level needed for data democratization. Decision support systems are often underdeveloped, with a significant portion of factories unable to support data-driven decision-making adequately.

- Innovation Process and Decision Power: There's an emerging shift towards empowering employees to initiate and implement improvements. However, while there is an active innovation process in more than half of the companies, the participation of employees in the implementation of measures is not sufficiently developed. The study also found that decision-making structures are evolving, with a notable portion of companies allowing operational decisions to be made by employees with appropriate IT support.

- Knowledge Sharing and Decision-Making: The culture within organizations often does not fully support the open sharing of knowledge and insights necessary for data-driven decision-making. Although some companies have started to adopt a data-based decision-making culture, the majority still rely on intuition and individual knowledge.

To sum up the findings of the research, only a few amount of businesses are actually ready to implement data democratization. Most of them are in a half way process and the other

left is very authoritarian by nature and will not implement such an approach in the near future for sure.

Therefore, I would like to highlight why it could be so difficult to implement data democratization principles within a business and how businesses could overcome them. I made a conclusion that any issues could happen because of the inflexible corporate culture, different levels of data literacy among employees, data privacy frameworks, and also the large size of an organization (Fig. 2.2).
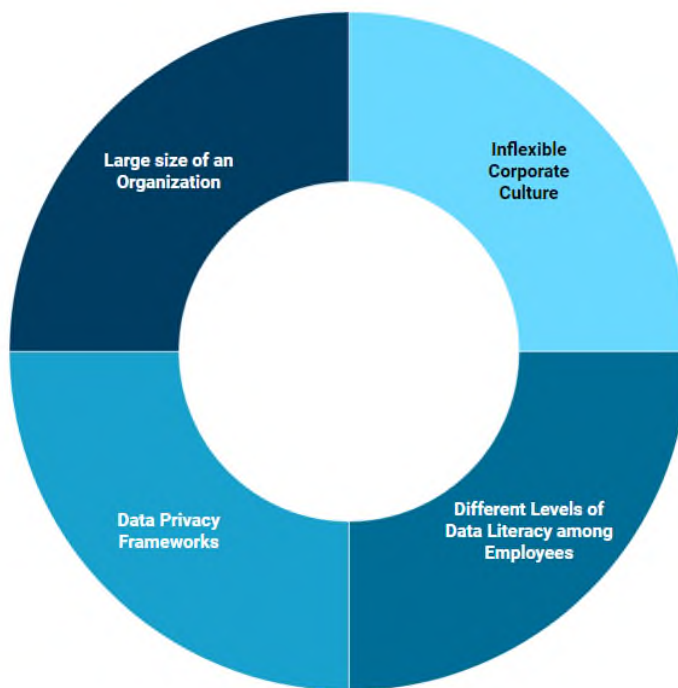
Fig. 2.2 (Barriers to Implementation of Data Democratization)

Source: authors' own diagram

One of the most significant challenges is overcoming the existing corporate culture that may resist open communication and shared decision-making. Traditional hierarchical structures can hinder the implementation of digital democracy principles. Leaders entrenched in old ways may view the democratization of data as a loss of control or authority, leading to resistance at various levels of the organization. This resistance can manifest as skepticism

towards data-driven insights or reluctance to share data across departments, which fundamentally undermines the concept of data democratization.

To address this challenge, change needs to be championed at the highest levels of leadership. Top executives must not only endorse but actively promote a culture shift that prioritizes transparency, collaboration, and empowerment through data. This cultural transformation involves redefining roles and reengineering processes to foster a more inclusive environment where decision-making is supported by shared data insights. Only through such a profound organizational change can the barriers erected by traditional hierarchical structures be dismantled, paving the way for a more democratic and data-empowered business model.

The challenge of varying levels of data literacy among employees in an organization is also important, particularly when attempting to democratize data access and usage effectively. It could happen due to several reasons:

1. Diverse Backgrounds: Employees come from a variety of educational and professional backgrounds, leading to different levels of familiarity and comfort with data concepts and tools.

2. Different Roles and Needs: Different roles within an organization require different levels of data interaction. For instance, a marketing analyst might need to perform complex data analyses, including the usage of technologies, while a sales representative might only need to interpret sales performance metrics that he or she sees on the printed piece of paper.

3. Technological Disparities: Not all employees are equally comfortable with technology, which can be a barrier to using data analysis tools and platforms.

4. Cognitive Biases: Employees may have preconceived notions or biases that affect their interpretation of data, leading to misinformed decisions.

To have the deeper understanding of such reasons, let`s look at biggest challenges for introducing a data-driven way of working as of 2018 (Fig.2.3). All of the reasons here are corresponding to the ones that I mention before, except for the matter of time (which could be addressed by the payment for an extra time at work) and recruiting data engineers and scientists. We would not need such specialists if every person in a company will be trained in data literacy.
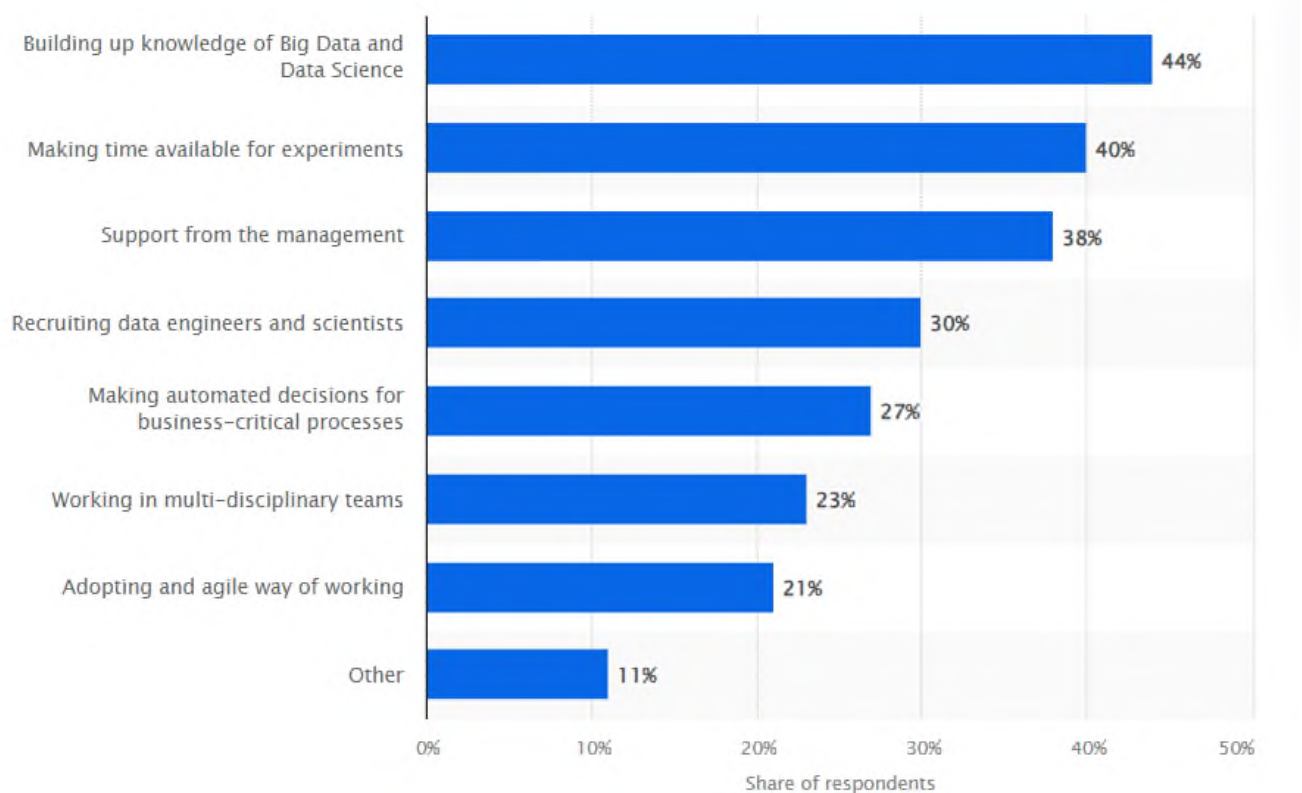
Fig. 2.3 (Biggest challenges for introducing a data-driven way of working as of 2018)

Source: based on GoDataDriven survey, 2018

To help it, the company could make an IT training and data literacy program for its employees. Develop a data literacy program tailored to various levels of expertise within the organization. This program should include foundational courses for all employees to ensure a basic understanding of data concepts and their importance. More advanced training can be offered to those whose roles require deeper interaction with data. These educational initiatives should be continuous and evolve as technology and data practices develop. Also, the organization could invest in and provide access to data analysis tools that are user-friendly and appropriate for varying levels of technological proficiency. Simplifying the interface and functionality of these tools can help mitigate the intimidation factor for less tech-savvy employees. Offering a range of tools – from basic to advanced – allows employees to choose the solution that best fits their comfort level and needs. As for the biased interpretation of data, incorporating training on cognitive biases and how they can affect the organization`s performance could address the issue. Educating employees about common biases and

providing tools to mitigate these biases can lead to more objective and effective data analysis. Workshops or training sessions that simulate decision-making scenarios could help employees recognize and correct their biases. Last but not least, regularly assessing the progress of data literacy across the organization through surveys, quizzes, and feedback sessions would be perfect. A company should use this data to continuously improve training programs and tools. This feedback not only helps to see the effectiveness of data literacy efforts but also demonstrates the commitment of an organization to the employees' growth and development in the field of data.

The other barrier could be the existing legal frameworks. Businesses operate under various data privacy frameworks, such as the General Data Protection Regulation (GDPR) in Europe, the California Consumer Privacy Act (CCPA) in USA, and others globally. I would mention CCPA because the BMN company is registered in USA. These regulations impose strict rules on how data is collected, stored, processed, and shared, with heavy fines for non-compliance. Data privacy laws often require that companies collect only the data necessary for a specified purpose and retain it for no longer than needed. Balancing this with the desire to have comprehensive datasets for analysis can be difficult. As companies increase access to data across the organization, the risk of breaches inherently increases. More access points can lead to greater vulnerabilities.

To manage this barrier effectively, a company could develop and enforce a comprehensive data governance framework that aligns with both internal data democratization goals and external regulatory requirements. This framework should define clear policies on data collection, storage, processing, and sharing, ensuring compliance with laws like GDPR, CCPA, or others. The organization should regularly update these policies to reflect changes in legislation. However, before implementing new data processing activities or technologies, it is crucial to conduct Data Protection Impact Assessments to assess the risks associated with these activities and how they impact data protection. This proactive approach can prevent potential compliance issues and enhance the organization's understanding of the data privacy implications of their operations. All in all, it would be much easier if a business would work closely with legal experts who specialize in data privacy laws. They can guide navigating

complex legal landscapes and help develop strategies that balance compliance with operational needs.

The size of an organization could also be a problem. Implementing data democratization principles in companies with complex structures or large scales presents unique challenges that can hinder the flow of information and collaboration across different parts of the organization. In complex organizations, different departments or business units often operate in silos, with their own data systems, processes, and priorities. This segmentation can create barriers to data sharing and collaboration, as each unit may guard its data closely, either due to competitive internal dynamics or simply due to the lack of a unified data-sharing culture. Rigid hierarchical structures can slow down decision-making processes and hinder the flow of information. In such environments, data may need to go through several layers of approval before it can be shared or used, making real-time data-driven decision-making nearly impossible. Complex organizations often have a patchwork of legacy systems, databases, and software solutions, each with its own data format and standards. Harmonizing these disparate data sources into a coherent, accessible format can be a monumental task, requiring extensive time and resources. Implementing change in a complex organization requires navigating a maze of bureaucracy, politics, and resistance.

To help it, such a company may create a centralized data management system that serves as the single source of truth across the organization. This framework should include unified data standards, formats, and protocols to ensure consistency and accessibility. Centralizing data management can help break down silos between departments and facilitate easier data sharing and analysis. Also, it would be good to review data governance policies and approval processes to reduce bottlenecks. Simplifying these processes can enhance agility and enable quicker decision-making. By implementing these two strategies, complex organizations can effectively tackle the challenges associated with size and complexity.

In conclusion, although achieving data democratization in a business comes with its challenges – whether they're related to company culture, technology, or laws – understanding these barriers can help create effective solutions. For companies ready to tackle these issues, the benefits are substantial. They include better decision-making thanks to access to more real-time data, faster innovation due to easier collaboration across departments, and more efficient

operations as data use becomes more streamlined. Overcoming these obstacles can be costly at first, but the long-term advantages like improved risk management, financial gains, and happier employees often make it worthwhile. Essentially, putting the effort into data democratization not only makes a company more adaptable and competitive but also better aligned with the digital demands of today's world.

CHAPTER 3. DIGITAL DEMOCRACY IN A COMBINED CONSUMPTION OF CORPORATE TECHNOLOGY IN THE CASE OF BMN CORPORATION

2.1.   Integrating Digital Democracy Frameworks by BMN company

Business Media Network LLC (BMN), established on February 19, 2022, in Florida, is committed to digital democracy within the realm of corporate technology. Despite its relatively recent appearance, BMN, co-founded by Henry Sterenberg, Alex Sheyner, and Oleksii Kozhanov, has made significant efforts to promote open and transparent digital interactions in the marketing services sector.

However, how we can manage the degree of implementation of the digital democracy principles by BMN Corporation? In Chapter 2 we had a research that was using The Industry 4.0 Maturity Index. According to my observations, the factors included in that research did not represent the full scale of a topic of digital democratization; the company`s actual capability to implement data democratization. First of all, these Indexes are calculated for the manufacturing companies, and the company that I am going to research specializes in service. Secondly, I could not find the scientific basis of the proposed factors. Therefore, I am going to use the Industrie 4.0 Maturity Index for Managing the Digital Transformation of Companies (by the National Academy of Science and Engineering, Germany) with small corrections to emphasize the digital democracy principles as part of Industry 4.0 Company.

Industrie 4.0 Maturity Index is basically a tool used by companies to check how well they are doing in becoming more digital and automated. It's like a roadmap that helps companies see where they are right now in using modern technologies and what steps they need to take to improve and use new technologies even better. This tool looks at different parts of a company, like how they use technology, how they organize their work, and how open they are to change. This Index is credible because it was created by experts from different fields who understand both the academic theories and the real-world challenges of digital transformation. These experts are from Acatech, which is the National Academy of Science and Engineering in Germany. They worked together with industry leaders to make sure that the Index was practical and really helpful for manufacturing companies. This collaboration

between academia and industry ensures that the Index covers all important aspects of modern industry practices and technologies, making it a trustworthy guide for companies aiming to adapt and thrive in a digital era.

The Index has a scale that consists of six development stages of a process and is measured in 4 different Structural Areas independently (Fig.3.1).
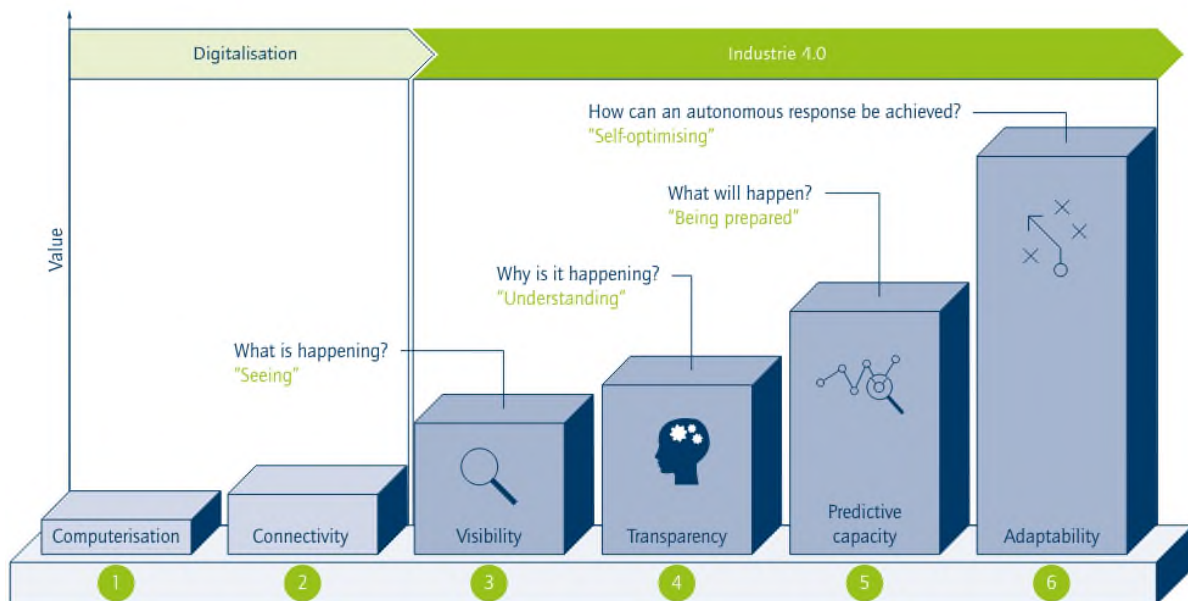

Fig. 3.1 (The Six Stages of Company`s Development)

Source: based on FIR e. V. at RWTH Aachen University

The 6 stages of development are:

1. Computerization. Basically, it means using computers and software to handle different tasks that were traditionally done by humans.

2. Connectivity. It refers to the ability of computers, systems, and organizations to link and communicate with each other over networks. Unlike computerization, which is about using computers to perform tasks, connectivity focuses on the connections between these systems to enable data exchange and integration.

3. Visibility. This means the ability of a company to track and see what's happening across its operations in real-time.

4. Transparency. In order to reach this stage, a company should use the data collected from various operations to understand and analyze why things happen the way they

do. This goes beyond simply seeing what's happening, which is visibility, to actually understanding the reasons behind those events. In other words, it is the ability to analyze automatically and find out the basic truth of how things are working within the company.

5. Predictive capacity. The company can use data and insights from its operations to forecast future events and trends. This goes beyond just understanding current operations (the previous stage of transparency) and moves into predicting what might happen next based on that data.

6. Adaptability. It suggests that a company has automatized systems and processes that can quickly adapt to new information or conditions without significant human intervention. For example, if a predictive analysis shows that demand for a product is going to be huge, an adaptable company can automatically adjust its production levels, supply chain operations, marketing and sales projects, and inventory management to meet that demand. Adaptability ensures that a company can quickly implement changes across its operations to capitalize on opportunities or mitigate risks as they arise.

The Structural Areas by which we could manage to notice the readiness of a company to implement digital democracy principles are as follows (Fig. 3.2).
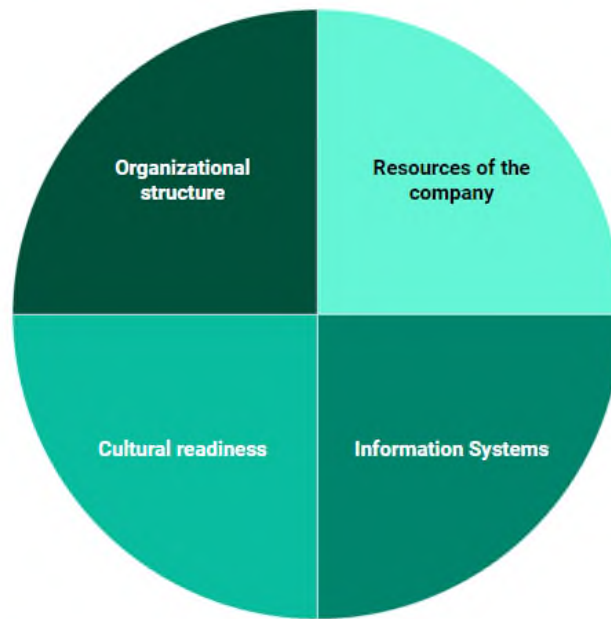
1. Resources of the company. As our company does not have any tangible resources (basically it only connects businesses and government) I will analyze the human resources here. Particularly, the number of employees trained in data literacy. This could include how many people of our staff members understand data concepts and can make data-driven decisions and to which scale.

2. Information Systems. In other words, technological infrastructure maturity. Measured by the active usage of systems that are integrated and can support data democratization, such as cloud-based platforms and data analytics tools.

3. Cultural readiness. This might be gauged through employee surveys to assess the cultural shift towards data-driven decision-making and openness in data sharing across departments.

4. The Organizational Structure will be evaluated through the proportion of leadership or management roles actively supporting and championing data democratization initiatives within the company.

Fig. 3.2 (Structural Areas)

Source: authors' own diagram, based on acatech STUDY, 2017

Therefore, in this chapter, I will be analyzing which part of development every Structural Area of the BMN Company is located. But firstly, I would like to mention some important information about the evaluation in different areas.

Looking in more detail at the Resources of the company, the percentage of employees trained in data literacy actually involves assessing a lot of factors that I will mention now below. The first one will be understanding data concepts. This includes the proportion of the workforce that can comprehend basic data concepts, such as data structures, data types, and the significance of data quality. It's important to gauge employees' ability to understand the

data they work with and its relevance to their job functions. They should be able to make data-driven decisions. It encompasses employees' ability to analyze data sets, draw logical conclusions, and apply these insights to their daily work and strategic decisions. Training programs and initiatives for employees are also crucial. So, I would be also examining the company's investment in training and development programs focused on data literacy. This includes the availability, reach, and effectiveness of these programs in equipping employees with necessary data skills. Data literacy requirements may vary across different departments within a company. Therefore, assessing data literacy should consider the specific needs and functions of various teams, such as marketing, executive, sales, and IT. Besides initial training, we should look at how the company supports ongoing learning and skill development in data literacy. This could involve regular workshops, online courses, or access to learning resources to keep pace with evolving data technologies and practices. Finally, we might assess how increased data literacy among employees has impacted the company's operations, decision-making processes, and overall performance. This could include improvements in efficiency, accuracy in forecasting, and enhanced problem-solving capabilities.

The maturity of a company's Information Systems is a critical determinant of its capability to implement data democratization. This refers to the degree to which various data systems and platforms within the company are interconnected and can communicate with each other. A high percentage of integrated systems indicates a mature infrastructure, facilitating seamless data flow and accessibility across departments. The adoption of cloud-based platforms factor is the next important one. The use of cloud services is a hallmark of technological maturity, as these platforms provide scalable, flexible, and accessible data storage and processing capabilities. The extent to which a company has adopted cloud technology can significantly impact its readiness for data democratization. Cybersecurity Measures are also a factor that plays a significant role. Mature technological infrastructures have robust cybersecurity measures in place to protect data integrity and privacy. This is crucial for data democratization, as more employees accessing data increases the risk of breaches. Finally, the extent to which employees can access and utilize data systems and tools from various devices and locations is another measure of technological maturity. This

accessibility supports a culture of data democratization by allowing employees to use data when and where they need it.

As for the Cultural readiness factor, we should look at the value system for data-driven decisions in the corporation. It is important to acknowledge whether there is a prevailing culture that values democratic decision-making over intuition or hierarchy-based decisions. This approach should be reinforced through policies, procedures, and strategic goals that prioritize data insights over gut feelings. And, of course, to consider the level of openness in sharing information and whether data is siloed within specific departments. A company that actually supports digital democracy would ensure that employees at various levels have access to data that is relevant to their roles. This access should be democratized to prevent gatekeeping by higher management levels, thus encouraging a more inclusive environment where data-driven insights are valued across the board. Last but not least, decide whether the culture supports experimentation and learning from failure, which is crucial for data-driven practices. A culture that recognizes that not every initiative will succeed. Encouraging a mindset that views failures as learning opportunities rather than setbacks. By addressing these areas, BMN Corporation or any other organization can enhance its cultural readiness for digital democracy principles.

The Organizational Structure means establishing the right rules within the company through the leadership commitment toward data democratization and digital transformation. But before we discuss that, it is important to consider the size and type of an organization and its overall management style. Even if the organization is small or medium, the existence of red tape could slow down the decisions about day-to-day company activities and also be a barrier to data democracy. The type of organization should help it to stay connected within the departments and to make fast decisions. The management style is a significant factor to analyze because it directly influences how data is accessed, used, and shared across an organization. For example, a manager who delegates authority and empowers employees at all levels encourages them to take initiative and make decisions based on data. This autonomy can accelerate decision-making processes and enhance responsiveness to changing market conditions. When employees feel empowered to use data in their roles, they are more likely to engage with the data they have access to and contribute actively to the organization's goals.

As for the leadership, the employees in high managing positions must elucidate the meaning and implications of digital transformation for the organization, ensuring that all functional areas are aligned and collaborative. This involves clear communication about the goals, processes, and expected outcomes of digital transformation initiatives and the overall performance of the company. Executives are always held accountable for their role in fostering cross-organizational collaboration. This accountability is essential in ensuring that departments work together seamlessly, breaking down silos to achieve common objectives. Leadership should emphasize projects that enhance cross-functional collaboration, demonstrating a commitment to integrating various segments of the business in the transformation journey.

Therefore, we will start analyzing the Resources of the company (as I mentioned above, human). There are about 80 employees in the company which is located in 11 departments (Executive Department, HR Department, Customer Service Department, Marketplace Department, Technical Department, Cities Showcase Department, QA Department, Deal Flow Department, Content Department, Sales Department, and Mayor`s Club Department). All of the departments are computerized and connected with each other by network, so BMN has the Connectivity stage of development here for sure. Moving onto the question about Visibility, the workers are using file-sharing platforms and office imitation tools. Everyone is working remotely from different countries and time zones. We had employees from Asia, North America, Africa and Europe. So, when the personnel from Europe is taking a break, the American colleges are here to replace them. Everyone has Visibility of each other`s work at any given time of the day (with the help of Bitrix 24, Google Docs, and Yammer). The next stage of development is Transparency (basically means that all employees should understand why they and their coworkers are doing what they are doing). Once in two weeks all of the company`s employees have a meeting with the CEO in which he explains all of the company`s challenges and strategies to overcome them. The meeting with Heads of different departments is conducted more frequently, from once a week to once a day, depending on the importance of focus. Also, the Data Literacy factor here plays a crucial role, because even if the person is capable of looking at what his or her coworkers are doing, he might be still unable to interpret the information. I would describe the Data Literacy of employees of the Business Media

network as very good. All of the employees are students. Students of a Business University, where we specifically have subjects on data literacy. Moreover, the company gives free access to Google`s courses and training on Data Literacy and Data Analysis. The courses help to maintain a high level of Data Democracy consciousness which results in improved quality of important decisions of the managers and more productive day-to-day solutions of regular employees. So, BMN has the Transparency stage development here too. The Predictive Capacity, however, is a stage that the company has not managed to archive. The corporation was a startup, and our activities and services were changing every second month. So, it is impossible to predict for employees what they will be doing and how to adapt to it. In conclusion, the Business Media Networks` Resources are in the Transparency Stage of Development (Fig.3.3).
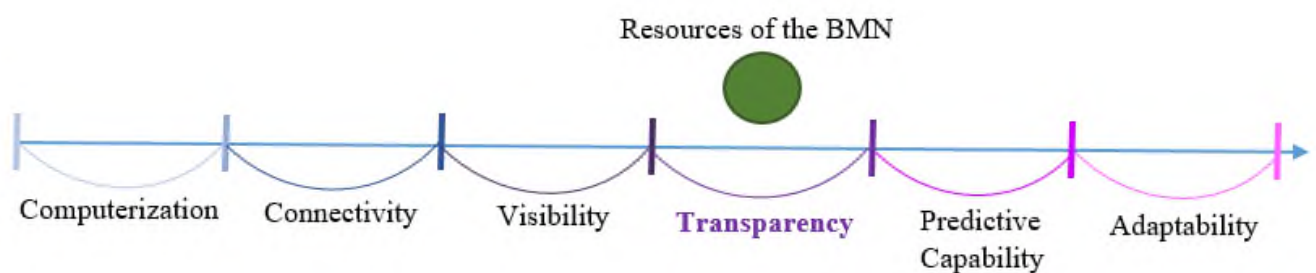

Fig. 3.3 (Stage of Development of BMN`s Resources)
Source: authors' own diagram, based on ideas from acatech STUDY, 2017

Next, I would like to discuss the development of Information Systems. As they are the Technical Equipment that is connected to the global network and that all of the employees all over the world could use it, they are already in the Connectivity stage. The main technology used in the Business Media Network Corporation is computers and smartphones. The needed software tools are GoogleDocs (for clients' base and company`s structure), web scrapers (for database filling), Excel (for financial accounting), Zoom (for conferences), Bitrix24 (for work organization), Telegram (for employees), Email (for communication with international organizations) and Viber (for communication with Ukrainian businesses). Also, the company is using Cloud Storage for its data. It can be accessed from any device, as long as it has an internet connection. As for Cybersecurity,

the company is very young and it has not been under any hacker attacks. So, it does not have the right cyber protection. What we could say from all of the information above is that BMN Corporation's systems allow for data to be monitored and operations to be seen 24/7, therefore they are demonstrating capabilities associated with the Visibility stage of the Industrie 4.0 Maturity Index. Google Docs and Bitrix24 exemplify their commitment to achieving real-time visibility. Google Docs allows for live updates and collaborative work on documents and spreadsheets, so changes in client information or project statuses are immediately visible to all relevant parties. Bitrix24 offers comprehensive tools for project management, customer relationship management, and internal communications, enabling BMN to monitor all aspects of its operations comprehensively. Transparency in this context means making data accessible and understandable to all relevant stakeholders, ensuring that operations are visible and that information is used responsibly and openly. Also, it means that the technical tools can analyze the data automatically and understand it. Unfortunately, the Business Media Network does not have the right technology and mindset to be on a Transparency stage. So, the Information Systems are located in the Visibility stage (Fig.3.4).
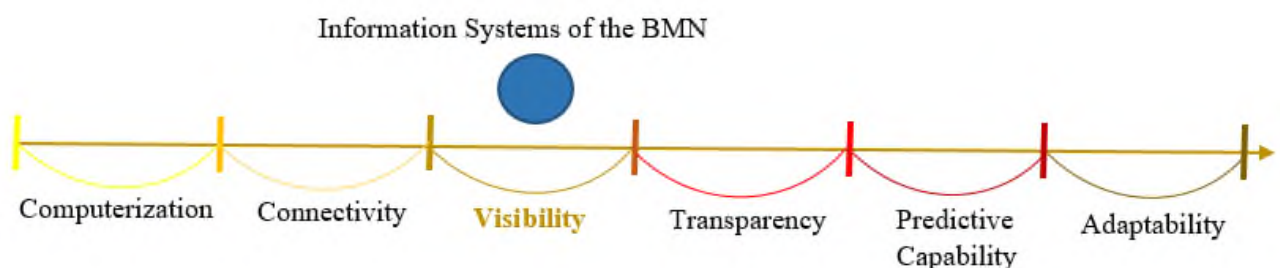

Fig.3.4 (Stage of Development of BMN`s Information Systems)

Source: authors' own diagram, based on the ideas from acatech STUDY, 2017

Moving now into Cultural readiness, I would say that the BMN Corporation values highly the concept of digital democratization. As for the open communication within the company, it is done perfectly. The employees were not only workers but friends that once in a while could meet in informal settings. All of the staff except for the cofounders are

students, so being around the same age really helps to communicate openly with each other. This common ground helps in building a trustful and open atmosphere within the company as well. However, there is a slight unfortunate difference in the leadership style of the CEO and the top management, which isn't as open as the rest of the company's students` culture. This could be seen as a drawback because it doesn't fully match the democratic ideals they aim for, but it is a great area for improvement. Mistakes in the BMN Company are treated with the right respect, everybody understands that they are crucial for the development. This is particularly important in a company where most of the employees are students – learning from mistakes is a big part of their development. The management team gets this and supports it wholeheartedly. Also, the Business Media Network is very open to innovations. Ideas in BMN usually come from:

1. Directly from company employees. BMN believes that great ideas can come from anyone in the company, regardless of their position. They encourage all employees to share their thoughts and suggestions on how to improve things or try new approaches. For example, if you think that you have an interesting idea for the company`s development, you could write to the CEO immediately and schedule a quick meeting with him. And such practices often happen in a corporation.

2. As a result of researching the topical literature. The company gives free access to its employees to popular books and podcasts on the business theme. Except for the overall and professional development of workers, it helps the top management to stay informed about new trends and technologies that they might not be directly familiar with.

3. As a result of observing the business organization of other companies. BMN pays attention to what other businesses are doing. This isn't about copying them, but about learning from their successes and failures. By looking at how other companies solve problems or innovate, BMN can adapt those strategies to fit their own needs and even cooperate with the competitors in order to share the experience.

4. As a result of work with consultants. Sometimes, they bring in experts from outside the company. These consultants offer specialized knowledge and a fresh perspective that can help BMN identify opportunities they might have missed and explore new possibilities. This is the way to stay conscious and up-to-date with the Industry 4.0 trends.

So, I definitely would say that the company is open to new ideas and flexible. All in all, almost all of the necessary factors for the successful implementation of digital democracy in terms of culture are achieved. Therefore, the stage of development of Culture readiness is Predictive Capability (Fig.3.5). Everybody sees the situation and knows how to deal with it: now or same situations in the future. The culture itself is very open and modern. If the top management would be working more intensively on the implementation of a more democratic leadership style, the Cultural readiness would be in the Adaptability Stage.
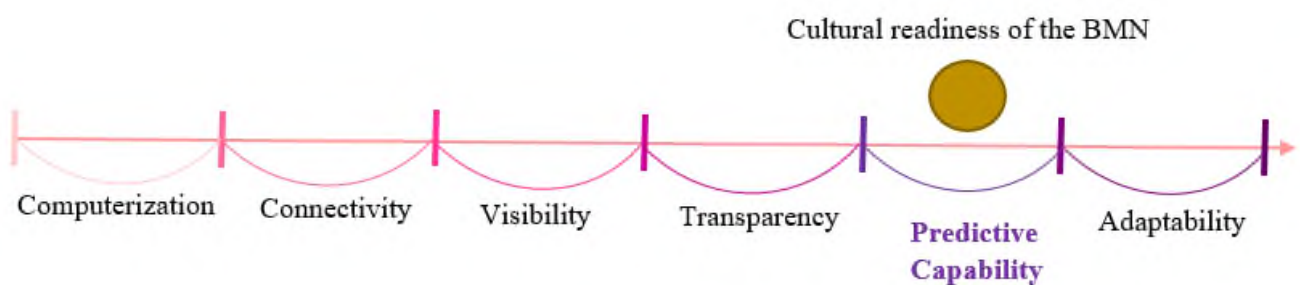

Fig. 3.5 (Stage of Development of BMN`s Cultural Readiness)

Source: authors' own diagram, based on the ideas from acatech STUDY, 2017

Last but not least, we will discuss Organizational structure. The equivalent of the Computerization Stage of Development here would be the employees that have individual responsibility. Which, of course, is present in the BMN Corporation. The next stage is the ability of workers to be flexible and from time to time form different departments. In the company, workers are very multifunctional. Almost two-thirds of employees, according to my questionnaire survey, had worked in more than two departments within two months,

often handling responsibilities in multiple departments at the same time. As for the data democracy, all of the relevant information was available to the worker at any given time despite the department. Decentralized decisions were also totally possible to make but only if it is unprecedentedly connected to the job of an employee. For example, in a Sales Department, every sales manager should decide on how and when to talk to different clients and after that, if the clients are potential "leads" (which would mean the possible buyer of the company`s services) or not. As for the motivation of employees, it was managed extremely well. Money was never the goal because the company had no profit. Everyone in the Business Media Network worked there because believed in its idea to change the future for Ukrainian companies. This type of motivation is powerful because it taps into deeper values and aspirations. Considering all of the factors above, I would like to conclude that the Organizational Structure of BMN is in the Adaptability Stage of Development (Fig.3.6). This means the company has reached its perfect stage of readiness for digital democratic principles. It is highly flexible, open, and capable of quickly adjusting to new challenges and opportunities.
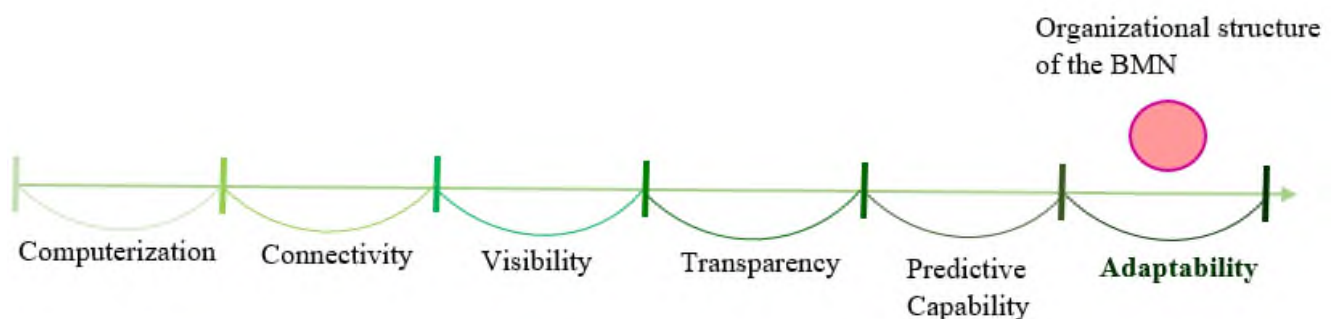

Fig. 3.6 (Stage of Development of BMN`s Organizational Structure)

Source: authors' own diagram, based on the ideas from acatech STUDY, 2017

Now we should look at the picture as a whole and analyze the whole degree of implementation of data democracy principles within the organization (Fig.3.7).
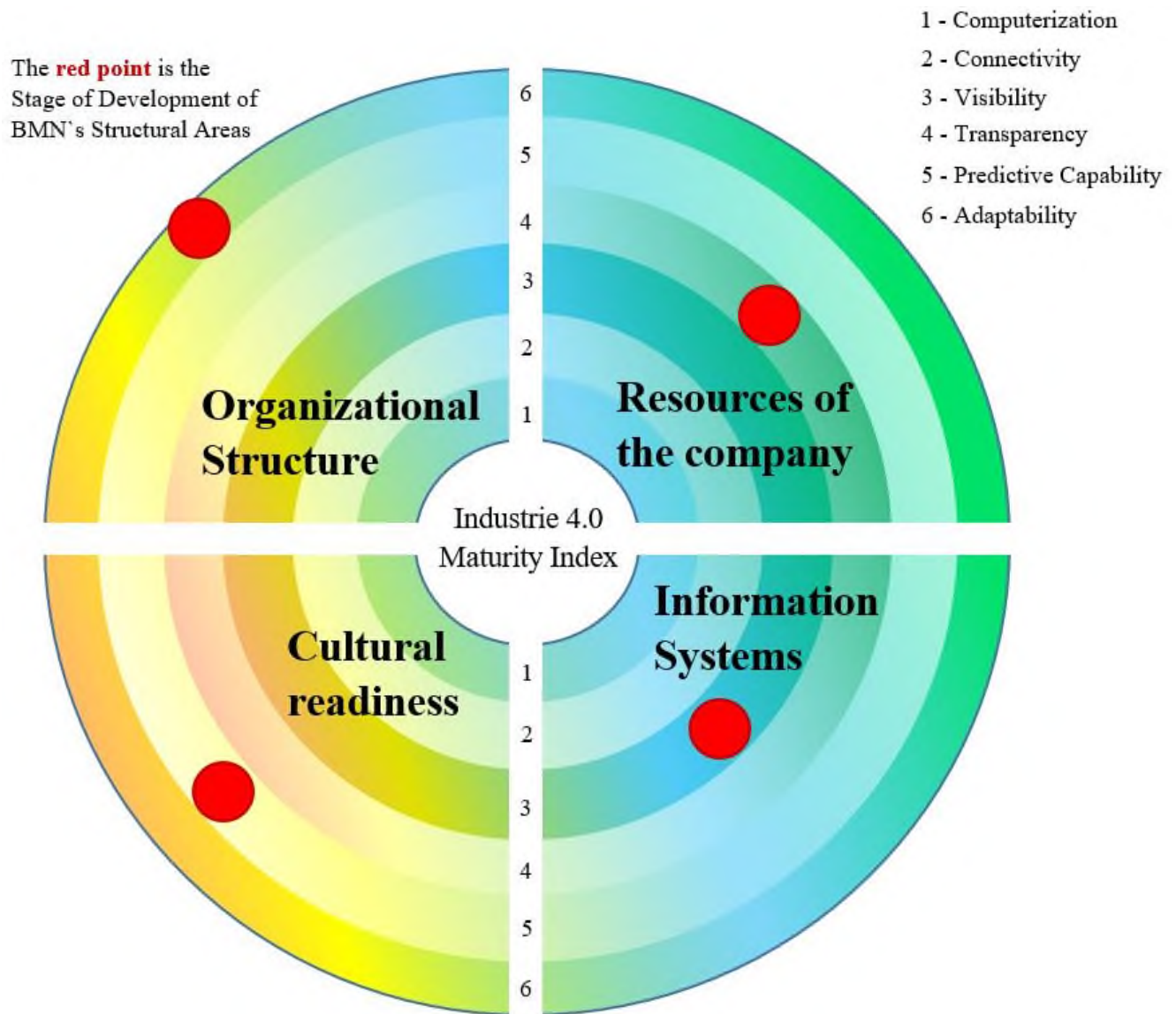
Fig. 3.7 (The Stages of Development of BMN`s Structural Areas)

Source: authors' own diagram, based on the ideas from acatech STUDY, 2017

As we can see on the chart above, all of the Structural units of the company are on different levels of development.

Organizational Structure is positioned in the yellow-to-green quadrant and marked at level 6 (Adaptability). This suggests that BMN's organizational structure is highly mature in the context of Industry 4.0. This implies a flat and flexible organizational hierarchy that promotes autonomy, agile decision-making, and seamless collaboration across departments, aligning well with the dynamic requirements of the digital democracy principles.

Indicated in the green-to-light blue quadrant at level 5 (Predictive Capacity), BMN's Cultural readiness is strong as well. This high level of maturity reflects a workforce that is well-aligned, again, with data democracy principles and values, emphasizing innovation, adaptability, continuous learning, and a proactive approach to embracing digital transformation. There's a shared belief in the company's vision, which drives motivation and the integration of new technologies.

The red point at level 4 (Transparency) in the blue quadrant shows that Business Media Network has a good level of maturity of Resources of the company that are necessary for Industry 4.0. This indicates that the company has access to substantial and well-trained in terms of digital democracy human resources. However, the result is still far from ideal. It happened because of some limitations that I named earlier in my analysis. Of course, there are a lot of areas for improvement here to fully exploit the capabilities of Industry 4.0 technologies. The details for that I am going to discuss at the end of Chapter 3.

Finally, the red point in the blue quadrant at level 3 (Visibility) stands for Information Systems and signifies a moderate to low maturity level. BMN has some foundational systems in place for managing and utilizing data, but there's a need for further development to achieve integrated, real-time, and efficient data processing and analytics capabilities that Industry 4.0 demands.

In summary, Business Media Network Corporation demonstrates a highly advanced Organizational Structure and a strong Cultural Readiness which are both essential in supporting the transition to Data Democracy within the organization. But without the right technical and resource support it is almost impossible to achieve. Their Resources are also at an acceptable level, capable of supporting necessary changes, but there's room for enhancement. The Information Systems show moderate to low development and would benefit from further investment and upgrading to fully support the organization's digital democracy ambitions.

2.2. Advancing Collaborative Efforts through File Sharing Initiatives

In the digital age, the ability to collaborate effectively across all levels of a corporation that are connected with each other is not just a convenience but a necessity for maintaining competitive advantage. Collaboration is the main engine of innovation and operational efficiency, particularly in a company like BMN Corporation, where collective expertise and shared knowledge are cornerstones of success. Among the variety of tools enabling this collaborative spirit, file sharing stands out as a critical facilitator of the seamless exchange of information. The concept of Data Democratization is also inseparable from collaboration and file sharing. As businesses all around the world move towards smart manufacturing and digital supply chains, the ability to share data seamlessly across platforms and borders becomes increasingly critical. And the BMN Company makes no exception.

It would be important to highlight the transformative role of file-sharing initiatives within the BMN Corporation. It eliminates silos, ensuring that everyone has access to the data they need when they need it. We will look at how these initiatives have been implemented, the challenges they have helped the company to overcome, and the positive impacts they have had on collaborative efforts. The file-sharing system is more than just a management approach; it is a dynamic initiative that has reshaped the very fabric of how BMN operates on a day-to-day basis.

The basics of collaborative work and file sharing are rooted in both the psychology of teamwork and the mechanics of information technology. So, the successful implementation of file-sharing initiatives requires a cultural shift towards a more open and cooperative work environment, supported by technology that aligns with the company's operational needs. Cultural readiness for change was already discussed and remains very high within the corporation. As for the technology of Business Media Network, ideally, it needs to be improved. The company often uses file sharing in three ways: GoogleDocs, Bitrix24, and Telegram. To give some background information about them, Google Docs is a free online program that lets you create documents, like reports

or presentations, and lets lots of people work on them at the same time from different computers. Multiple workers can open the same document and type in it at the same time. You can see what others are typing as they type it, and where they are working in the document because their cursor will have their name on it. If you want to, you can also send a link to other people to let them see or edit the document. You can also control who can just look at the document and who can make changes, these people can leave comments on parts of your document, which is like sticking a note on your work and saying, "Look at this part, I think you should change it." You can also make such suggestions for your colleges that would look like edits, but they're not final until someone approves them. Now moving on to Bitrix24. It is the online workspace where a team or a whole company may track their activities in one place 24/7. Imagine the virtual office building in which everyone can find there a place to work, talk to each other, and use different tools like planners and file cabinets – everything online. Bitrix24 has a place where you can keep all your files, sort of like a digital filing cabinet. You can put documents, pictures, and other files here, and then let your teammates see them or make changes. You and your team can work on documents together, kind of like Google Docs. You also can write, make changes, and discuss all the changes and corrections in real-time. You can use Bitrix24 to make plans for big projects, too. It would show everyone in the company who needs to do what and by when, so staff know their job. Last but not least, Telegram. Telegram is a messaging app that lets you chat with your friends, coworkers, or even a whole amount of people at once. You can create a group chat for your team or project. Telegram also lets you send all kinds of files to people (documents, photos, videos, or music). Telegram has bots, which are like little helpful virtual robots. They can do such things as remind you of tasks, help with scheduling, and find the right information. Telegram is good for teams because it's simple to use and you can talk to your teammates quickly, share different files no matter how big they are, and stay connected wherever you are. So, using all of the three software tools explained above in the company is the basis on which the file-sharing initiative works.

Before BMN Corporation had started on its journey to improve collaboration through file-sharing initiatives, the environment for teamwork and cooperation followed

a more traditional route. Different teams use varied, often disconnected tools to work together. The communication was primarily email-based, with long threads that could easily lead to confusion and information getting lost in the end. Face-to-face meetings or Zoom calls were the norm for brainstorming sessions and project updates, which, while effective for real-time interaction, often left remote team members (the ones with a different time zone) out of the loop. Innovation, the driving force of BMN's strength, was particularly moved up by these problems. Creative brainstorming was limited to scheduled meetings, which meant that spontaneous, potentially groundbreaking ideas had to wait for the next gathering to be shared and discussed. The pre-initiative state highlighted the need for a more cohesive approach to collaboration. The realization that a unified platform could reduce many of the existing bottlenecks and catalyze both productivity and innovation was becoming very clear.

Following the careful planning and design of the file-sharing initiative, Business Media Network Corporation moved now into the implementation phase. First of all, the company had set up the necessary infrastructure for the new file-sharing system. This included server installations, cloud integrations, and ensuring simple security measures were in place to protect the data being shared. The process of implementation was conducted in phases, starting with a smaller group of users who worked in an IT Department and could provide final feedback and help to catch any issues before a full-scale implementation. After that, regular training sessions from the IT Department were organized to familiarize employees with the new system. These sessions covered basic operations, advanced features, and best practices for security collaboration, and successful job performance. They were offered in various formats, including webinars and on-demand video tutorials in the group chat of a specific department, to accommodate different learning preferences and schedules. The main challenges faced in the learning process are as follows below. Some employees were hesitant to adopt the new system, preferring to stick with familiar methods of file management and collaboration. But in reality, these employees just felt unprepared and unconfident to use the new system effectively. In response, additional training sessions were scheduled, focusing specifically on areas where users felt less confident. As with any new technology implementation,

there were also initial technical glitches, such as integration bugs and performance issues under heavy load. These were managed by the BMN`s IT team in close collaboration with the technical support of the software, ensuring that all patches and updates were applied and worked smoothly.

As a result, many employees reported being able to manage their workloads more effectively (information from a group chat in the Business Media Network Sales Team), with an increase in the number of tasks completed on time. So, the user satisfaction scores were generally high, with particular praise for the system's real-time collaboration features and intuitive user interface. These results underscored the effectiveness of the file-sharing initiative, confirming that it had not only met but in some areas, exceeded the initial objectives set during the planning phase. The positive outcomes highlighted the benefits of integrating digital solutions into BMN Corporation's workflow, paving the way for further technological enhancements in the future.

2.3. Leveraging Customer Feedback for Business Innovation

As I have mentioned above, BMN Corporation specializes in offering marketing services tailored to the needs of other businesses. It gives them the ability to rebrand, change marketing strategies, or find new partners for collaboration. Operating as a B2B middleman, BMN not only connects companies with the marketing resources they need but also ensures that these services are perfectly aligned with their client's business goals. This unique positioning allows BMN to capture a broad spectrum of feedback, which is integral to refining their services. Customer feedback is more than just comments on a product; it is a critical component of the BMN`s operational blueprint. The company is a startup, so it still needs to make a great reputation for the brand. Feedback helps BMN understand what works, what doesn't, and what their clients expect from them in the future. It informs them about the effectiveness of their marketing strategies and the quality of the connections they facilitate between businesses. Therefore, by actively collecting and analyzing this feedback, BMN can make informed decisions that not only improve

their services but also enhance client satisfaction and, in the future, establish strong brand loyalty.

Collecting and understanding customer feedback is especially crucial in the B2B sector where relationships and trust are key. Digital democracy and customer feedback go hand-in-hand because both involve using digital tools to listen to people. In business, digital democracy refers to the practice of using technology to give everyone a chance to have their say through feedback – much like how a democracy allows everyone to vote and contribute to decisions So, here are the main ways in which the BMN company gather the opinion of its customers:

1. Through surveys and questionnaires: after the service has been done, the sales manager often sends a small questionnaire to the customer in order to get feedback. It usually contains questions about the managers` performance, the overall quality of service, and suggestions for improvement.

2. Interviews: Once a week BMN content manager did an interview with different experts in the business industry about the corporation and changes in the modern world. It was published on the YouTube channel of the company. They often talked about innovations and how Business Media Network can become a better company.

3. Customer Support Interactions in the QA: Every interaction with customer support in the QA part of the BMN site provides insights into what clients might be struggling with or what they appreciate, which can then be used to enhance service and quality.

Nevertheless, understanding customer feedback is not just about collecting data; it's about transforming that data into knowledge that can drive business improvement. As a Customer Relationship Management system, BMN uses Microsoft Dynamics, which is perfect for young enterprises. This tool is not used just for recording customer interactions but is pivotal in storing and analyzing feedback across various touchpoints. Feedback data from the CRM is used to refine marketing campaigns, ensuring that content is aimed to address the interests and concerns of different customer groups and segments.

After the feedback is collected and properly analyzed, feedback-driven decisions the implemented. This whole system is an ongoing cycle at BMN. The company consistently monitors the effectiveness of changes and is prepared to make further adjustments as needed. This commitment to continuous improvement ensures that BMN remains responsive to customer needs and competitive in the market.

As for the prospects for the future, BMN is actively exploring several emerging technologies that promise to enhance their feedback mechanisms, including:

1. Artificial Intelligence: AI technologies can automate the analysis of large volumes of feedback, identifying the main patterns and predicting future trends more efficiently than a human business analyst would. BMN plans to integrate such AI systems in the future to enhance real-time data processing, analysis, and response-making, ensuring that customer feedbacks are quickly turned into the company`s strategies.

2. Blockchain for security: To ensure the integrity and security of the feedback data, BMNs` IT department is considering the use of blockchain technology in the future. This would help in securely recording and verifying customer feedback, making the data much more reliable for making critical business decisions.

3. Social Media Presence Expansion: BMN intends to increase its social media presence and monitoring in order to cover emerging platforms and forums where B2B discussions are increasingly taking place. This expansion will help to capture an even wider range of customer opinions.

4. Business Sustainability Initiative. The overall idea is based on the increasing client feedback regarding the need for more sustainable practices. To address it, BMN is now looking to innovate in ways that integrate sustainability into their service offerings. It could include promoting environmentally friendly projects in the BMN`s social media accounts, financing the green economy organizations, and consulting the client`s businesses on a more sustainable approach.

As we can see, the future of leveraging customer feedback at BMN Corporation is rich with potential. By embracing new technologies, expanding feedback channels, and setting strategic long-term goals, BMN has a great chance of being a leader in B2B marketing services.

As for now, the journey of integrating customer feedback into business processes is ongoing. It requires dedication, innovation, and a commitment to excellence from the top management of the company. As BMN continues to refine its feedback mechanisms and integrate emerging technologies, it will exceed customer expectations very well in the future.

CONCLUSIONS AND PROPOSALS

To sum up, the topic of models of digital democracy as the basis of management in the combined consumption of corporate technologies was thoroughly investigated in Chapters 1 and 2. The whole concept of digital democracy is multifaceted, with the practical approach to businesses through data democratization, particularly focusing on its integration within corporate technology consumption and management strategies. We have explored its potential to reshape traditional paradigms of decision-making, collaboration, and transparency, showcasing in Chapter 3 how BMN Corporation has implemented these principles to enhance its business operations and stakeholder engagement.

The analysis started with a deep dive into the definition and scope of digital democracy, highlighting its evolution from a political ideology to a transformative business strategy. The concept extends far beyond facilitating electoral processes; it encompasses fostering inclusivity, transparency, and participation within corporate settings. By drawing parallels between governance and business practices, the work demonstrated how digital tools and platforms could democratize information and decision-making processes within organizations as well.

Central to this research was the case study of BMN Corporation, which provided a concrete example of how digital democracy principles could be practically applied within a business context. Through initiatives like data democratization, advanced collaborative efforts, and leveraging customer feedback, BMN has showcased a proactive approach to integrating these principles into its daily operations. The analysis of BMN's application of the Industrie 4.0 Maturity Index revealed that a company is deeply committed to adapting digital democracy frameworks, although it is varied across different organizational dimensions.

Despite the successes, the journey of integrating digital democracy principles is not devoid of challenges. Issues such as cultural factors, varying levels of data literacy among employees, and the need for substantial technological infrastructure are the main barriers.

Looking ahead, the future directions of digital democracy within BMN Corporation and similar organizations appear promising but demand continuous effort and adaptation. Emerging technologies like AI, blockchain, and advanced data analytics will play pivotal roles in enhancing the efficiency and scope of digital democracy initiatives. Moreover, as the global business environment becomes increasingly volatile and competitive, the ability to rapidly adapt and implement these principles will likely become a significant determinant of organizational resilience and success.

In synthesizing the findings from this comprehensive study, it is clear that digital democracy holds the potential to revolutionize business practices by making them more inclusive, transparent, and efficient. For BMN Corporation, and indeed any forward-thinking enterprise, the path forward involves a commitment to nurturing a culture that values and utilizes the democratic potential of digital technologies.

To sustain and enhance the integration of digital democracy in the future, I would recommend that BMN Corporation:

1. Continues to invest in training and development to enhance data literacy across all levels of the organization.
2. Expands its technological infrastructure to support more sophisticated data analytics and real-time decision-making capabilities.
3. Engages in continuous dialogue with stakeholders to refine and adapt its digital democracy strategies in alignment with evolving business and regulatory landscapes.

This work has not only analyzed the current state of digital democracy within BMN Corporation but has also outlined a roadmap for its future development. The insights written here could also serve as a guide for other organizations aiming to implement similar strategies, thereby contributing to a broader understanding and adoption of digital democracy principles in the business world.

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