ORGANIZATION AND MANAGEMENT SERIES NO. 185

# MANAGEMENT OBJECTIVES AND CAPITAL EQUILIBRIUM IN MUNICIPAL COMPANIES

# Elżbieta JĘDRYCH<sup>1\*</sup>, Dariusz KLIMEK<sup>2</sup>

<sup>1</sup> Faculty of Business and International Relations, Vistula University, Warsaw, Poland; e.jedrych@vistula.edu.pl, ORCID: 0000-0002-8526-2776

<sup>2</sup> Faculty of Organization and Management, Lodz University of Technology, Lodz, Poland; dariusz.klimek@p.lodz.pl, ORCID: 0000-0003-3952-4533

\* Correspondence author

**Purpose:** This study aims to present the research findings regarding the final stages of a new concept for managing municipal companies. The need for a new management concept for municipal companies arises from the ever-present dilemma that managers face, torn between the commercial nature of the company and its responsibilities related to public utility and improving residents' lives.

**Design/methodology/approach:** In contrast to the previous concept, the research described in this article focuses on a modified and simplified version of capital equilibrium developed within the past year and based on a point system. The previous concept, which the authors piloted in municipal companies in previous years, was based on a rather complex and labor-intensive valuation of specific capital components in monetary terms to balance them. The study was carried out in eight municipal companies using a research tool—a point-based questionnaire about the state of their capital. A description of the methodology used and the study's findings is preceded by a review of the current knowledge and papers related to previous attempts to implement the concept in previous years.

**Findings:** The study's results indicate that managers correctly assess the capital levels, which is a prerequisite for implementing the concept. However, several conditions may hinder its implementation in some companies, the most significant being the issue of limited knowledge about the company's capital.

**Originality/value:** This concept combines the achievement of mandatory management objectives in municipal companies in Poland (effectiveness) with capital balancing (efficiency) and offers an alternative to the widely used profit-driven approach. Primarily, the goal is to find an alternative to the outdated profit metric, which has become a management objective in these companies due to recent changes in legal regulations, leading directly to increased fees for water, sewage, thermal power, waste, and transportation.

Keywords: management objectives, municipal company, capital equilibrium.

Category of the paper: research paper.

#### Introduction

One of the fundamental problems that municipal company<sup>1</sup> managers encounter there is a specific dichotomy when it comes to making decisions based on two distinct regulations that regulate the operation of these entities and their strategies for carrying out their missions. One of these regulations is the Act of 1996 on Communal Economy (Act, 1996), which stipulates that these companies generally undertake tasks of a public utility nature<sup>2</sup>.

The concept of "public utility" was defined in the 1990 Act on Local Self-government (Act, 1990), which specified that public utility duties, as defined in the law, are the inherent responsibilities of municipalities that seek to continually satisfy the public's needs through the provision of services that are accessible to everyone. In the literature, public utility is defined in various ways, but most authors tend to highlight a shared characteristic: the absence of a profit-oriented approach (Pyziak-Szafnicka, Płaszczyk, 1997). From this, it can be concluded that a company's goal should be to improve the accessibility and quality of services offered to improve the quality of life for citizens and the operation of businesses, with less emphasis on making a profit. On the other hand, municipal companies, like all other commercial companies, are subject to the provisions of the Commercial Companies Code, which does not differentiate municipal companies from other commercial entities. These companies typically operate in competitive markets and aim to generate profits. The Commercial Companies Code does not mention public utilities, and the most common form of municipal company, such as a limited liability company (sp. z o.o.), can operate for any legally permissible purpose (Act, 2000).

In the early stages of Poland's transformation, there were ideas aimed at preventing future conflicts by creating "public utility companies" from former public utility enterprises operating under the State Enterprises Act (Act, 1981) or by introducing a new legal form called a "municipal company" to the reactivated 1934 Commercial Code in 2000 (Act, 2000). However, these initiatives remained in the project phase (Klimek, 2017). Establishing distinct legal structures for municipal companies that would not be solely driven by profit as the primary criterion for their operations continued to surface in later years within academic discourse (Bachor, 2009). Notably, scholars like E. Wojciechowski from the University of Łódź advocated for the practicality of creating an intermediary legal framework that bridges the gap between a budgetary institution and a commercial enterprise. Furthermore, auditors from the Supreme Audit Office (NIK) consistently highlighted the inherent tension between the duty to address societal needs and the imperative of profit maximization, emphasizing that "a municipal enterprise may either generate profits at the expense of its residents or, conversely, be perceived as inefficient even when effectively meeting their needs" (Challenges, 2015).

<sup>&</sup>lt;sup>1</sup> In Polish law, there is no specific definition for a municipal company. Therefore, for this research, it has been assumed that a municipal company is a company in which one or more local government units hold 100% of the shares or stocks.

<sup>&</sup>lt;sup>2</sup> The performance of tasks of a public utility nature can apply to only some municipal companies. According to the law, separate municipal companies operate outside the sphere of public utility. See: Wronkowska, 2015, p. 117; Rakoczy, 2010, p. 27.

In 2016, a fundamental change occurred and municipal companies could finally define and pursue their management objectives, not necessarily based solely on profit. In the Act of June 9, 2016, on the principles of remuneration for persons managing certain companies, it was specified that the total remuneration of members of the management board of, among others, municipal companies consists of a fixed part, which constitutes a monthly basic remuneration defined in a specific amount, and a variable part, which serves as supplementary remuneration for the company's fiscal year. The variable portion of the remuneration depends on the achievement of management objectives (Act, 2016). It is worth mentioning that the new law's provisions at that time applied to a significant number of entities. Besides state-owned companies covered by the provisions of the law, as of December 31, 2015, Poland had 2324 limited liability companies and 273 joint-stock companies in which local government units held shares or stocks, respectively (Information, 2016). To facilitate the founding bodies of these companies in formulating management objectives, the legislator, in Article 4(6) of the law mentioned above, provided examples of management objectives applicable to entities covered by the law. These objectives could include, in particular: 1) an increase in net profit or profit before interest, taxes, and depreciation, or a positive change in the growth rate of either of these; 2) reaching or changing the amount of production or sales; 3) increasing revenue value, especially from sales, operational activities, other operational activities, or financial activities; 4) reducing losses, lowering management or operating costs; 5) implementing a restructuring strategy or plan, 6) reaching or changing specific indicators, especially profitability, financial liquidity, management efficiency, or solvency; 7) implementing investments, taking such factors into account as the investment's scale, return rate, innovation, and timeliness; 8) Changing the company's market position, which is measured by market share or other criteria, or its relationships with key counterparties as defined by certain criteria; 9) implementing human resources policies and increasing employee engagement.

Between 2017 and 2018, a significant number of municipal companies published (on their websites) their founding bodies' resolutions containing management objectives, making it easy for researchers to access this data. In 2018, one year after the law mentioned above was passed, investigations into the management objectives of 103 municipal companies yielded the following conclusions:

- Only seven out of 103 municipal companies examined did not mention profit as a criterion for assessing the board's or the company's performance.
- Among the 484 management objectives across these 103 companies, there was a clear dominance of financial goals (over 53.5%), primarily related to profit, revenue, or costs. There were fewer concrete goals, most of which were related to development or investment plans (over 31.0%), and very few social goals (15.5%) that directly helped improve the quality of life for residents.

- The highest number of economic objectives, including profit, was observed in municipal companies in the following sectors: municipal waste (70.0%), healthcare facilities (60.0%), public transportation (55.6%), and water supply and sewage (55.6%). The fewest were found in social housing companies (23.0%), with varying numbers of objectives. For example, there were ten objectives in Radom Airport and only 2 in the Pomeranian Special Economic Zone.
- Management objectives were copied directly from legal provisions in nearly half of the
  companies examined. Although this might not be a problem if the objectives were
  appropriate for each company, concerns were raised because the same management
  objectives were repeated across multiple municipal companies in a single city,
  regardless of their industry, size, or probably different economic situations and
  investment needs (Klimek, 2018a, 2018b, 2019a).

Our examination of management objectives revealed another issue: competing objectives. Before implementing the new law's provisions, many municipal company directors were adept at balancing public utilities and the Commercial Companies Code. They undertook actions that, in addition to generating profits, at times included tasks that were not necessarily associated with beneficial profitability (such as building sewage systems in sparsely populated areas or launching bus routes in rural areas) but aimed at improving the quality of life for residents and the working conditions for local businesses. However, when the new management objectives require the company's board of directors to, for example, increase service accessibility by increasing revenue while simultaneously decreasing costs, it may not always be feasible.

These issues prompted us to seek an alternative approach to managing municipal companies that would reduce the conflict between the public utility and commercial nature of these companies. The primary goal was to eliminate profit as the primary objective of municipal companies. This alternative approach is called "sustainable capital management", which combines capital balancing (efficiency) with the achievement of management goals (effectiveness). After conducting pilot studies in several municipal companies, this new concept was first described in a paper in 2019 in Polish (Klimek, 2019b) and in 2020 in English (Klimek, 2020).

The concept of capital balancing draws on several scientific theories and methods. One of its foundational elements is undoubtedly the systemic approach, which emerged and developed in science in the 1950s and 1960s. The essence of this approach is to treat the objects being studied as sets of interconnected elements in such a way that they form a new whole, distinguishing it within a given environment. Additionally, the theory of resources and competencies played a significant role, suggesting that a company's strength primarily arises from its people's knowledge and technological potential. Equally important were the following concepts: 1) the concept of corporate equilibrium, developed as part of the Anglo-American supply theory, 2) the notion of intellectual capital, which argues that a company's human resources are just as necessary as its physical assets like buildings, machinery, and cash,

3) the theory of social capital, whose comprehension and, more significantly, the development of techniques for measuring it, were essential for the development of the proposed approach.

Furthermore, the concept shares much in common with the well-established literature and managerial practice of several decades, known as Management by Objectives (MBO). This approach involves building a cohesive set of objectives for all units and participants within an organization and assessing their achievement level.

While developing the concept of capital balancing presented below, we shared the views of H.A. Simon, who significantly contributed to changing how we understand rational thinking in human activity. This shift moved away from the notion of a person with unlimited computational abilities who comprehends all available decision options and maximizes all utilities toward the idea of decision-making processes based on "satisficing" rather than optimizing, guided by imperfect rules. For companies in particular, Simon argued that it is reasonable to assume they strive for satisfactory solutions rather than maximizing, or, in other words, they aim for outcomes that are good enough but not necessarily the best. Simon's theory of bounded rationality has been further developed not only by Simon himself but also by other behavioral economists and theorists (Simon, 1957, 1959, 1979; Cyert, March, 1963).

The new concept of capital balancing represents an ongoing process aimed at attaining one or more objectives while simultaneously maintaining equilibrium among the various forms of capital within an enterprise. This entails striving to ensure that the value of each capital type approaches an optimal level while preserving the proportional relationships among these capital forms. The effectiveness of an enterprise is measured by its ability to achieve its predetermined goals successfully. At the same time, efficiency is associated with the ability of managers to rapidly approach a state of equilibrium between current capital levels and their ideal states. It is essential to maintain this equilibrium across all types of capital for an extended period. It is worth noting that managers should recognize that the effectiveness of achieving objectives and capital equilibrium often present conflicting demands.

Therefore, an enterprise's primary task is to achieve strategic and operational objectives with the highest possible efficiency, defined as the pursuit of equilibrium. In other words, when pursuing its goals, an enterprise should be practical and, at the same time, strive for equilibrium among its various forms of capital (physical, structural, financial, market, human, social, and possibly natural). This equilibrium can be understood in two ways:

- 1) as the difference between each capital's current value and its target value for a specific period, as specified by the objectives, or
- 2) as the disparity between different forms of capital (all forms of capital interact with each other, but not equally and with the same strength).

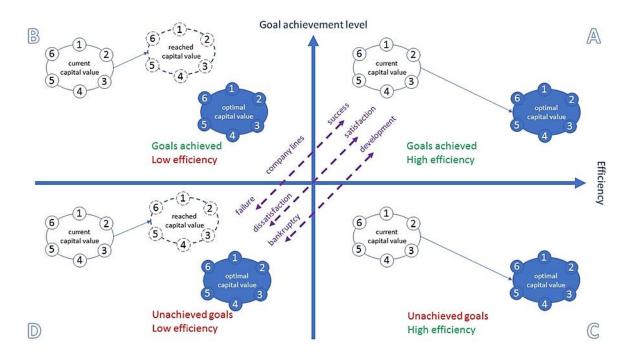


Figure 1. Zones for goal achievement level.

Source: Klimek, Jedrych, 2021.

The most effective management outcomes occur when a company is in zone A, achieving its goal(s) via the highest concentration of capital (physical, structural, financial, market, human, and social) (Figure 1). Zone B represents a situation where the company achieves its goal(s), but its efficiency is low (low capital balance). Failure to align capital levels can result in underutilization (waste) and unnecessary costs. It is vital to remember that while the underutilization or misutilization of physical and structural capital is quite visible, the underutilization or misutilization of market and financial capital is also visible but tends to receive less attention during the management process. The worst scenario, though, occurs regarding social and human capital. These are often referred to as hidden capital and are rarely measured, and managers usually receive only incomplete or incidental information about them. Zone C could appear less favorable (depending on the company's strategy and ownership priorities) than Zone B because, even though the business is effective (its capital is balanced), its objectives still need to be met. This hampers the company's development, not to mention the legal, financial, or staff-related consequences associated with failure to achieve goals. Zone D has the worst circumstances. It denotes both poor capital efficiency and failure to meet objectives. As a result, it not only symbolizes failure but also has the potential to lead to a crisis or even bankruptcy. Finding a company in this zone undoubtedly indicates that significant changes are needed.

These two terms, effectiveness (in achieving goals) and efficiency (balancing capital), are fundamental principles that every manager should follow. When achieved simultaneously, they lead to success, satisfaction, and the company's development. In reality, this implies that the decisions made by managers and the business's financial standing will be evaluated based on effectiveness (the degree to which goals are met) and efficiency (the amount of equilibrium between the company's capital).

A balance between a company's capital should never be equated with equal monetary value; balance usually occurs between capitals with varying values. Sustainable management is not only about balancing various forms of capitals but also between capitals and goals. In other words, when setting goals, it is essential to consider to what extent achieving these goals will create an imbalance in different capitals and whether it is possible, at what pace, and with what effort and resources to balance the capitals while attaining goals.

For this concept, two new metrics have been developed: the average percentage difference of capitals and weighted capital differences. These coefficients range from 0 to 1 and provide insight into whether the company is proceeding in the intended course and how close it is to accomplishing its objective of an ideal capital distribution. Balancing capital aims to achieve the most efficient utilization of the company's resources.

#### 2. Methods

The tests to implement the sustainable capital management approach in several companies in Poland conducted in 2018–2021 have shown that it can be implemented (Jedrych, Klimek, Rzepka, 2021). However, the tests have also pointed out numerous factors that can hinder its implementation in specific instances. In addition to managers' lack of knowledge of capital, which was expected at this point in the study, the pilot studies showed that putting the concept into practice takes time. It calls for immediate assistance from outside professionals and, without developing a software program (an app), is practically impossible to implement for the present management requirements. The most significant problems were related to the valuation of individual capitals (Jedrych, Klimek, 2018a; Klimek, 2018c). The current valuation techniques proved overly complex, requiring them to be modified. Another significant area for improvement was the imprecise nature of valuation techniques and how valuations can be compared over time. Internal social capital raised questions regarding the validity of the responses given (as long as no outside interviewers were involved and employees were not given assurances that their opinions were anonymous), as well as the fact that nearly every comparatively straightforward question required a detailed explanation by the interviewer, especially among production workers (Jędrych, Klimek, 2018b; Jędrych, Klimek, Rzepka, 2022).

This led to the development of a simplified capital balance system. The primary distinction is the shift from a thorough monetary evaluation of individual capitals to a point-based evaluation of their levels. The approach allows for significant flexibility, and the process of such assessment may vary from one company to another. The basic framework for implementing the simplified method should include:

- Determining annual management goals for the company by the founding body and possibly long-term goals. This action may involve collaboration with the management team, where the mayor or city council approves the goals developed by the management and reviewed by the company's supervisory board. It's essential that these goals are measurable and attributed to specific capitals: physical, structural, financial, market, human, and social. Within each capital, there can be multiple goals, or there may not be any, but for balance, it is desirable to identify at least one goal within each capital. Goals should be assigned weights in accordance with legal provisions, although these weights are not of significant importance for management purposes. However, they are necessary for determining the remuneration of the company's management.
- A point-based assessment of the level of individual capitals carried out by the management and approved by the supervisory board. These evaluations should be performed with regard to the current level of each capital and the target level of capitals derived from the established goals. Double evaluation occurs only in the initial year; the level of capital achieved in the year before becomes the starting level of capital in the year after. Knowledge in this regard is crucial for the proper capital balancing process, and a subsequent section of the article is dedicated to exploring this aspect.
- A point-based assessment of the level of individual capitals by the management and approved by the supervisory board following one year of operation. It is crucial because the capitals level determines the degree to which management objectives have been met, which serves as the basis for the variable component of the company management's remuneration. These assessments can be conducted more frequently to meet present needs as they do not require extensive and costly measures.

One of the fundamental prerequisites for carrying out capital balancing in management is knowledge about the levels of capitals, which enables a proper assessment of their current condition. The results described below pertain to the study's final stage before training and implementing sustainable management principles in a simplified form in selected municipal companies. The study focused on the knowledge of municipal company managers regarding the levels of individual capitals. The study results answer the query if it is possible to apply the principles of sustainable management in practice without significant external help from experts.

The study was conducted in eight selected municipal companies located in the Mazowieckie, Łódzkie, and Śląskie voivodeships. Each of the businesses was medium-sized, with between 115 and 340 employees, operating in one or several municipalities, and representing various industries including water supply and sewage, heating, public transportation, and municipal waste management. Three of them were multi-industry businesses covering several different sectors of municipal business in the cities they served. The study consisted of four stages:

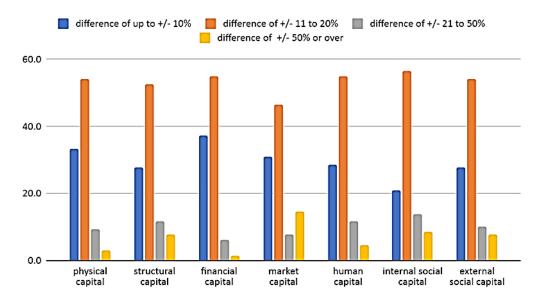
- 1. Defining the components constituting the various capitals of a municipal company (physical, structural, financial, market, human, and social) and establishing the criteria for assessing the level of these capitals. At this point, particular focus was placed on the fact that municipal companies have unique characteristics compared to other economic entities, which significantly impacted how components were allocated to capitals. Differences are often mentioned in the literature primarily based on technical and economic-social criteria. The technical criteria included characteristics such as high capital intensity (especially in network companies like water supply, sewage, and energy providers), technical indivisibility, the inability to store provided services, services being produced, delivered, and utilized simultaneously, a frequent shortage of supplier options, and service substitutability. The technical criteria also included the service-oriented nature. Although it is not a characteristic that is unique to municipal companies, it is worth noting because these companies typically deliver manufactured goods such as water or heat. The service-oriented character is only present in municipal companies in the transportation or funeral industries. According to the socioeconomic criteria, these differences arise from natural monopolies (at least in the case of water and sewage or heating provision) or monopolies imposed by local authorities on specific service providers (e.g., municipal waste management). Additionally, service subsidies are frequently required, primarily for public transportation companies but also often for water and sewage fees (Pyziak-Szafnicka, Płaszczyk, 1997; Byjoch, Klimek, 2015). Finally, nearly all authors point out that these entities are not profit-oriented. In almost every capital, this particularity of municipal businesses is evident. In addition to the previously mentioned points, it is critical to emphasize the distinctiveness of municipal businesses in domains like marketing or human capital. Because of their inherent monopoly status, many of these companies do not focus on marketing capital as intensely as businesses operating in highly competitive markets. However, most of these companies still value their relationships with the community and customers, making this an element of social capital. In terms of human capital, these businesses only serve the neighborhood, and many of their staff members are locals. They frequently spend their entire professional lives with one municipal company, and interestingly, they are also customers of the same company because they live in the regions where it conducts business.
- 2. The second stage involved experts familiarizing themselves with the condition of capitals and assessing their levels in the eight studied municipal companies. The assessment of capital levels was carried out by four experts who were individuals with significant theoretical and practical experience in the functioning of municipal companies and affiliated with universities in Łódź and Warsaw. The assessment included the levels of six capitals within each company (physical, structural, financial, market, human, and social), with the assessment of social capital focusing only on

- external and internal aspects. In the end, each capital in a given company received a single score; there was no average of scores. It was decided upon by consensus during the last evaluation phase and resulted from in-depth discussions among the experts. A conventional rating scale was utilized for the evaluation, ranging from 1 (very low level) to 5 (very high level), allowing for intermediate ratings such as 1.5, 2.5, 3.5, and 4.5.
- 3. The third stage involved a survey that was conducted among 129 people in eight companies, each of which had 13 to 24 people in top managerial positions (including the president, board members, production director, economic director, chief accountant, department managers, deputy production managers, technical department managers, maintenance managers, procurement managers, financial managers, and human resources managers), as well as 36 people who worked in non-management positions. According to the experts' previous methodology, the six company capitals were evaluated using 8 to 11 criteria. For instance, the level of technology, technical condition, sufficiency in size, and completeness, including the ability to promptly address breakdowns, were considered when evaluating physical capital. The evaluation of structural capital considered things like the organizational structure and information flow, licenses and certificates held, approved tariffs, and the company's information system and security. Marketing capital was assessed based on the customer support system and the company's reputation in the marketplace. Human capital was evaluated based on variables such as the number of employees with the necessary competencies and the system for replenishing knowledge. Three variables—relational, structural, cognitive—were considered when and assessing internal social capital. Two perspectives were used in the assessments of capital levels: the current state of the capitals and the capitals necessary to meet the company's management objectives for the current year. In actuality, the experts and the survey respondents made two assessments for each capital: the current and target levels within a year.
- 4. The final stage involved the analysis of the gathered information.

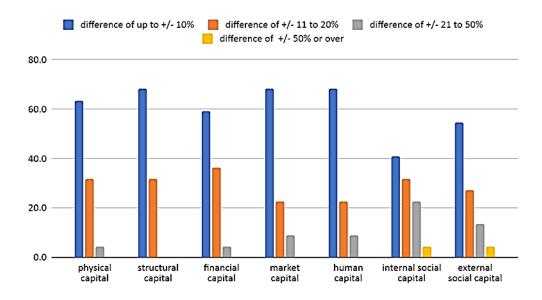
#### 3. Results

Figures 2 through 4 show the percentage differences between expert opinions and those of 129 managerial staff members, including the management team (Figure 2), 22 board members and directors who are not board members (Figure 3), and 36 supervisory board members and representatives of local government authorities overseeing the companies (Figure 4). Figures 5-7 show the percentage variations in the assessments of the capital levels the surveyed

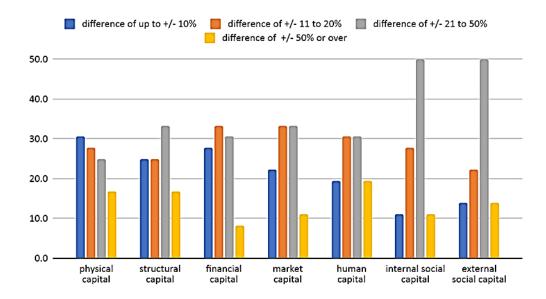
municipal companies required to meet management objectives (the target level within one year).



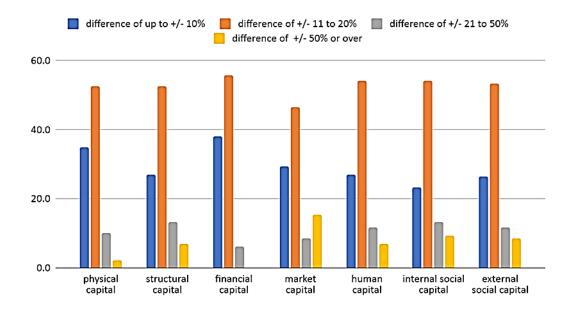
**Figure 2.** Differences in the evaluation of the present levels of capital among 129 managerial staff members (including the management team) versus the experts' assessment.



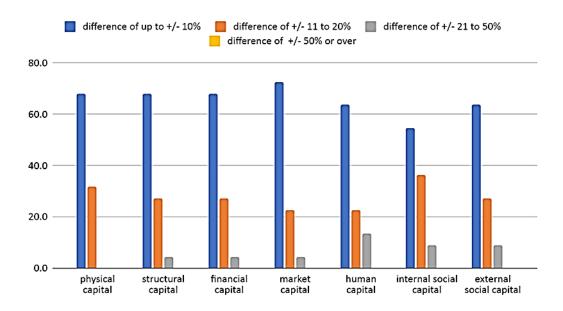
**Figure 3.** Differences in the evaluation of the present levels of capital among 22 individuals (board members and directors who are not board members) versus the experts' assessment.



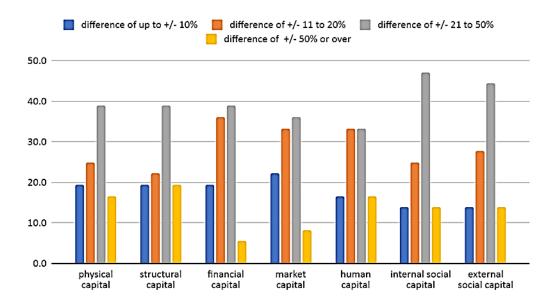
**Figure 4.** Differences in the evaluation of the present levels of capital among 36 individuals (supervisory board members and representatives of local government authorities overseeing the companies) versus the experts' assessment.



**Figure 5.** Differences in the assessment of the target levels of capital required to achieve management goals among 129 managerial staff members (including the management team) compared to the experts' assessment.



**Figure 6.** Differences in the assessment of the target levels of capital required to achieve management goals among 22 individuals (board members and directors who are not part of the board) versus the experts' assessment.



**Figure 6.** Differences in the assessment of the target levels of capital required to achieve management goals among 36 individuals (supervisory board members and representatives of local government authorities overseeing the companies) versus the experts' assessment.

#### 4. Discussion

The results presented in the tables show that:

- There are relatively few differences when comparing the managerial staff's assessment of the current capital levels to the expert assessment (Figures 2 and 3). This is especially true of top management. For the 129 participants who made up the middle and top management teams, 83.1% of the responses did not deviate more than 20% from the expert evaluation. There was even more agreement between the assessments of the board members and directors (22 people) and the experts. In this case, nearly 90% of responses did not differ by more than 20% from the expert assessment.
- When assessing target capital levels (Figures 5 and 6), these differences rise by about 1% among top and middle management and fall by more than 3% among board members and directors.
- A significantly worse situation exists in the assessment of capital levels in the surveyed municipal companies by supervisory board members and representatives of local government authorities overseeing these companies. In this case, there was a difference of less than 20% in assessments for 50% of current capital levels (Figure 4) and only 46.8% for target capital levels (Figure 7).
- Individual capital assessments revealed differences as well. The surveyed managerial staff (129 individuals) identified financial, physical, human, and social capitals more accurately, but there were more significant differences when assessing market and internal social capital (Figures 2 and 5). More significant differences were observed only in the assessment of internal social capital among responses from board members and directors (Figures 3 and 6). The difficulties in assessing capitals were roughly the same for supervisory board members and representatives of local governments, except for the assessment of both internal and external social capital. Only a maximum of 40% of respondents differed from the expert assessment by less than 20% (Figures 4 and 7).

Differences in the assessment of individual capitals are understandable. Generally, respondents were closer to expert assessments in the case of capitals whose levels can be assessed more quantitatively, such as financial and physical capital. The most significant differences occurred in the area of social capital, with many respondents having a more positive perception of its level, while others viewed it negatively.

It is also important to note that the tables present average results. Unfortunately, the results obtained among companies varied significantly. Because the study included only eight companies from various industries, it is difficult to draw unequivocal conclusions regarding the causes of the significant variations. The only thing that is certain is that such studies should be conducted before the implementation of the concept, and attention should be given to it during training in companies where the managerial staff struggles to determine the level of capital.

It should be emphasized that the study was carried out under the assumption that the expert assessment of capital levels, which was used as a comparison, was correct. This assumption can be supported by the effort and time put into the expert assessment, the consultants' experience, and—most importantly—the fact that the consultants had the opportunity to compare capital levels in numerous companies, giving them a competitive advantage over respondents who typically assessed the level without a second reference point.

## 5. Summary

The research results, although conducted on a relatively small group of enterprises, have shown that the ability of the managerial staff to assess the levels of capital is good. This means that municipal companies can independently, or with minimal expert support, implement balanced capital management. The authors' ability to assess capital levels was the most significant concern, and the research confirmed that the implementation and management processes can be carried out in line with the concept.

The capital level assessments were more comparable to those of experts among the directors and board members (Figures 3 and 6). This implies that, in practice, capital level appraisals should be conducted by a small group of managers, possibly relying solely on middle management's expertise when no data is available or defining the level proves difficult.

A less favorable situation occurred for supervisory board members and representatives of local authorities. To some extent, this can be justified and stems from a lack of knowledge about the specific company rather than a lack of skills. It should be noted, though, that these people will be in charge of the capital management procedures.

## References

- 1. Bachor, W. (2009). Efektywność majątku trwałego w spółkach komunalnych. Wybrane zagadnienia i wyniki badań. Warszawa: SGH, p. 232.
- 2. Byjoch, K., Klimek, D. (2015). *Spółka komunalna. Aspekty prawne, ekonomiczne i społeczne*. Adam Marszałek, pp. 80-84.
- 3. Challenges of municipal companies (an expert panel) (2015). Retrieved from: https://www.nik.gov.pl/aktualnosci/problemy-spolek-komunalnych-panel-ekspertow.html, 20.08.2023.
- 4. Cyert, R.M., March, J.G. (1963). *A Behavioral Theory of the Firm*. Englewood Cliffs: Prentice-Hall.

- 5. Information on transformations and privatization of municipal property for the year 2015. (2016) Retrieved from: https://bip.msp.gov.pl/, 13.09.2019.
- 6. Jędrych, E., Klimek, D. (2018a). Kapitał społeczny w przedsiębiorstwie zasady i uwarunkowania pomiaru. *Zeszyty Naukowe. Organizacja i Zarządzanie, No. 118*. Politechnika Śląska, pp. 227-235.
- 7. Jędrych, E., Klimek, D. (2018b). *Social capital in the company (meat and vegetable processing industry)*. Proceedings of the 2018 International Scientific Conference Economic Sciences for Agribusiness and Rural Economy. Warszawa, pp. 300-305.
- 8. Jędrych, E., Klimek, D., Rzepka, A. (2021). Principles of Sustainable Management of Energy Companies: The Case of Poland. *Energies*, *No.* 14(8), 2042.
- 9. Jędrych, E., Klimek, D., Rzepka, A. (2022). Social Capital in Energy Enterprises: Poland's Case. *Energies*, *15*(2), 546.
- 10. Klimek, D. (2017). Spółka komunalna ekonomiczne i społeczne aspekty zarządzania. *Studia Ekonomiczne. Zeszyty Naukowe Uniwersytetu Ekonomicznego w Katowicach*, *No. 322*, pp. 32-41.
- 11. Klimek, D. (2018a). Wpływ celów zarządczych na zarządzanie spółkami komunalnymi. *Zeszyty Naukowe. Organizacja i Zarządzanie*, *No. 71*, Politechnika Łódzka, pp. 5-15.
- 12. Klimek, D. (2018b). Realizacja celów zarządczych jako podstawa wynagrodzenia członka zarządu spółki komunalnej. *Marketing i Zarządzanie, No. 1*, pp. 163-171.
- 13. Klimek, D. (2018c). Wycena kapitału społecznego w przedsiębiorstwie. *Studia i Prace Wydziału Nauk Ekonomicznych i Zarządzania Uniwersytetu Szczecińskiego*, *Vol. 53*, *No. 3*, pp. 31-39.
- 14. Klimek, D. (2019a). Management objectives of a municipal company the solution to good management? *Organization & Management. Scientific Quarterly [Organizacja i Zarządzanie. Kwartalnik Naukowy], No. 1(45).* Silesian University of Technology, pp. 27-36.
- 15. Klimek, D. (2019b). Koncepcja zrównoważonego zarządzania kapitałami przedsiębiorstwa. *Kwartalnik Naukowy Uczelni Vistula, No. 62(4)*, pp. 44-53.
- 16. Klimek, D. (2020). Sustainable enterprise capital management. *Economies*, *No.* 8(1), pp. 1-10.
- 17. Klimek, D., Jędrych, E. (2021). A model for the sustainable management of enterprise capital. *Sustainability*, *No. 13(1)*, pp. 1-13.
- 18. Pyziak-Szafnicka, M., Płaszczyk, P. (1997). Działalność gospodarcza gmin a granice sfery użyteczności publicznej. *Finanse Komunalne*, *No.* 2, pp. 5-6.
- 19. Rakoczy, B. (2010). Prawo gospodarki komunalnej. Warszawa.
- 20. Simon, H. (1957). *Models of Man, Social and Rational: Mathematical Essays on Rational Human Behavior in a Social Setting*. New York, NY: Wiley.
- 21. Simon, H. (1959). Theories of Decision-Making in Economics and Behavioral Science. *The American Economic Review, No. 49(3), 253-283.*

- 22. Simon, H. (1979). Rational Decision Making in Business Organizations. *American Economic Review*, No. 69(4), 493-513.
- 23. The Act of December 20, 1996, on Communal Economy, Journal of Laws of 1997, No. 9, item 43.
- 24. The Act of June 9, 2016, on the Principles of Remuneration for Persons Managing Certain Companies, Journal of Laws of 2016, item 1202.
- 25. The Act of March 8, 1990, on Local Self-Government, Journal of Laws of 1990, No. 16, item 95.
- 26. The Act of September 15, 2000, the Commercial Companies Code, consolidated text, Journal of Laws of 2022, item 1467.
- 27. The Act of September 25, 1981, on State Enterprises, Journal of Laws of 1981, No. 24, item 122.
- 28. Wronkowska, S. (2005). Podstawowe pojęcia prawa i prawoznawstwa. Poznań.