

Dominika Kaczerska

Opportunities and Threats for Small Seaports in Poland in the Era of External Disturbances

Abstract:

Objective: The aim of the article is not only to identify opportunities, threats, strengths, and weaknesses for selected small seaports in Poland, but, above, all to critically evaluate the extent to which the strategic documents and audits correspond with the actual situation in the ports. The article also formulates recommendations for improving strategic management in these entities.

Research Design & Methods: The study is based on desk research, document analysis, literature review (Polish and international sources) as well as case studies of selected ports (Ustka, Darłowo, Kołobrzeg, Elbląg). The author's contribution is the comparative assessment of the consistency between the SWOT analyses included in national strategic documents, Supreme Audit Office reports, and local port strategies.

Findings: The comparison shows significant overlaps but also gaps between strategic plans and their implementation. Weaknesses such as insufficient infrastructure and fragmented ownership structure are repeated in all documents, but implementation lags undermine the ability to exploit opportunities, particularly in the offshore sector. The analysis identifies where national and local strategies diverge and why.

Implications / Recommendations: Small seaports require better coordination between local authorities, port managers, and the ministry responsible for maritime economy. Recommendations include strengthening financial mechanisms, defining clearer roles of ports in the national economy, and improving integration with EU strategies.

Contribution / Value Added: The article contributes by transforming descriptive SWOT data into a critical comparative analysis and strategic recommendations. It also expands the discussion by relating the Polish case to international literature on port governance and resilience under external shocks.

Keywords: small seaports, local governments, SWOT analysis

Article classification: research article

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Dominika Kaczerska – Gdynia Maritime University, ul. Morska 81-87, 81-225 Gdynia, Poland; e-mail: d.kaczerska@sd.umg.edu.pl; ORCID: 0000-0002-8989-6047.

Introduction

There are 32 seaports in Poland, of which four (Gdańsk, Gdynia, Szczecin, and Świnoujście) are of fundamental importance to the national economy (Journal of Laws, 1996; MG MiŻŚ, 2018). The remaining 28 are classified as ‘small seaports’ (including: in Elbląg, Krynica Morska, Kąty Rybackie, Puck, Hel, Jastarnia, Władysławowo, Łeba, Rowy, Ustka, Darłowo, Kołobrzeg, Dźwirzyn, Kamień Pomorski, Międzyzdroje, Wolin, Stepnica, Trzebieża, or Lubin), which are not of fundamental importance for the national economy (MG MiŻŚ, 2018). These small ports, although not strategic at the national level, play a crucial role in the development of coastal communities, tourism, fisheries, and increasingly in offshore energy services. Their governance, management structure, and strategic planning are highly diversified, depending on local authorities or companies established by municipalities (MG MiŻŚ, 2018). The condition for striving to develop these seaports is to define goals and perspectives within the framework of strategic management.

The scope of their activities and the authorities under which they are subordinated are regulated in the Act of 20 December 1996 on Seaports and Harbours. An important legal document constituting the basis for planning the development of small ports in Poland is the Seaport Development Programme until 2020 (with a perspective until 2030), adopted in 2019 by the Council of Ministers of the Republic of Poland. This document presents the results of strategic analysis for individual small seaports in Poland. Based on this, the management boards of small seaports have prepared development strategies for the coming years. However, the results of the audit conducted by the Supreme Audit Office (NIK) showed that many of the planned activities were not implemented. NIK also published a SWOT analysis for these seaports in Poland, which is the result of the audit and is the basis for introducing improvements and further development planning (NIK, 2023).

The aim of the article is to identify opportunities, threats, strengths, and weaknesses for selected small seaports in Poland and to critically evaluate the extent to which the strategic documents and audits. The article has a typical structure and consists of an introduction, a literature review, and the description of the research methodology, followed by a presentation of the results, their discussion, and summary. The paper ends with the limitations of the presented research and recommendations for further research as well as the list of references.

Literature review

Research on small seaports in Poland has been extensively developed in Polish literature (Nowaczyk & Zieziula, 2011; Nowaczyk, 2013a, 2015a; Szymańska & Michalski, 2018; Hernik & Ściana, 2014), with a focus on economic, functional, and spatial aspects. However, relatively less attention has been paid to integrating Polish findings into international debates on port governance, strategic management, and resilience (O’Connor et al., 2023; Brundin et al., 2022; Pang & Jin, 2024). International literature highlights that small and medium-sized ports often face similar challenges: limited capital, dependence on local authorities, and vulnerability to external shocks. The strategic management theory (Krupski, 2007; Dźwigoł, 2014) stresses adaptability and resilience, which is particularly relevant for ports navigating geopolitical crises and environmental pressures.

The term ‘small seaports’ is not officially defined either in the 1996 Act on Seaports and Harbours, or in other regulatory acts. However, some authors use the term to facilitate the

identification of seaports in Poland other than strategic ones. In his papers, Nowaczyk uses the phrase ‘small seaports’, which refers to all seaports in Poland except those in Gdańsk, Gdynia, Szczecin, and Świnoujście (Nowaczyk & Zieziula, 2011; Nowaczyk, 2013a, 2015b, 2016; Zieziula & Nowaczyk, 2012, 2017). The subject of this author’s research was the development of small seaports in Poland in terms of economics, space, and functions (Nowaczyk, 2013a, 2015a, 2016; Zieziula & Nowaczyk, 2012, 2017). However, already in the early 2000s, Pacuk and Michalski also used the term ‘small seaports’, and they distinguished the port in Ustka as one of the largest of this group (Pacuk & Michalski, 2002). In subsequent studies, Szymańska and Michalski distinguish small and large seaports in Poland. They define the ports in Gdańsk, Gdynia, Szczecin, and Świnoujście as large ports, and all the others as small (Szymańska & Michalski, 2018). A similar division, in accordance with the provisions of the Act, is provided by Hernik and Ściana, but they additionally specify medium-sized seaports, where cargo imported to and exported from the Baltic Sea region are handled (Hernik & Ściana, 2014). However, they cite the seaport in Darłowo as an example of a small seaport with a well-developed commercial function. In turn, Bocheński examined the relations between cities and seaports, based on which he distinguished the division according to their size. If the city surrounding a seaport is small, the port is most often classified as such (Bocheński, 2024).

Small and strategic seaports in Poland are distinguished not only by their size and scope of operations, but also by their ownership structure and managing entities. The main shares of strategic seaports in Poland are held by the State Treasury (over 50%) (Journal of Laws 1997, No. 9, item 44). Some shares in these ports are also held by the local governments of the cities within whose administrative boundaries they are located. A different situation occurs in the case of the ownership structure of small seaports, where the main shareholder is the commune on whose territory they are located (Journal of Laws 1997, No. 9, item 44). Joint-stock companies have been established for strategic seaports in Poland, and the authority under which they report is the ministry responsible for infrastructure. The legal and organisational form in the case of small seaports is determined by the commune. If the commune has not transferred land for perpetual usufruct for the operation of seaports, the managing entity may also be the director of the relevant Maritime Office (Journal of Laws of 1997, No. 9, item 44). For most small seaports, local governments have established limited liability companies (LLC) that act as management boards. Examples of communes where a commercial company has not been established and where the mayor is the administrator include Dziwnów or Stepnica (ZMPM, 2024b).

Entities managing seaports make key decisions that determine their further functioning. For small seaports in Poland, these decisions are made by appointed boards or local authorities of cities or communes. The concept of strategic management is associated with making key decisions regarding the activities of entities and establishing plans for them for the coming years.

Strategic management is an “information and decision-making process in which decisions are made with a long-term and broad material horizon” (Kałkowska et al., 2010). The time horizon in strategic management is a period of more than three years (Thompson & Strickland, 1993; Kałkowska et al., 2010).

Krupski (2007) draws attention to the process of defining and redefining strategy to the changing environmental conditions. He also believes that it should include development goals aimed at using the company’s resources or preventing disruptions in their acquisition. A newer approach to strategic management is defined by Dźwigoł (2014), who claims that the organisation should be managed dynamically in the long term and demonstrate high flexibility in the face of the changing

environment. It also indicates the need to coordinate the activities of managers at all levels in the organisation and appropriate competencies enabling the introduction of innovations.

Meanwhile, Sulich and Soloducho-Pelc (2024) demonstrate the relationship between the business ecosystem and strategic management; they believe that strategic management depends on the conditions surrounding the enterprise and on business partners, suppliers, consumers, as well as on economic, legal, technological, environmental, and social conditions.

Strategies and business models are distinguished as elements of strategic management (Drzewiecki, 2023). An element of strategic management is planning, which determines the goals and activities of an enterprise or organisation for the coming years. Dźwigoł points out that contemporary strategic planning should create and maintain a competitive advantage and combine the strategies of the organisation, employees, and management systems (Dźwigoł, 2014).

Da Silva Carvalho defines strategic planning as a key management tool, which, among others, includes a SWOT analysis (Strengths, Weaknesses, Opportunities, Treats) (da Silva Carvalho, 2024). It is used after collecting business information to determine the strengths and weaknesses of an enterprise or organisation as well as opportunities and threats arising from the environment (da Silva Carvalho, 2024). The purpose of using a SWOT analysis is to develop a new strategy for a company or organisation.

Entities managing small seaports in Poland should implement the planned activities in the EU's strategies as well as in state and internal strategies. The managers of these ports are responsible for maintaining the infrastructure in good technical condition and for further operation. This mainly concerns port quays and facilities (Zieziula & Nowaczyk, 2012; Bocheński, 2024). Managers of small seaports are obliged to ensure safety for ship operators, the port, and tourists, as well as to counteract threats related to the operation of ships or technical devices (Journal of Laws of 1997, No. 9, item 44). The management boards of these ports or municipal authorities are responsible for organising port services, for which they set fees, also in the case of using subcontractors.

In small seaports, strategic management mainly manifests itself in adapting their activities to applicable legal acts as well as the EU's and state strategies. However, port managers also develop their own strategies for the development of these entities.

They specify the goals of infrastructure development, environmental protection, corporate social responsibility, spatial development, and cooperation with the authorities of the municipalities within whose borders they are located (Zieziula & Nowaczyk, 2012; Michalski & Kiniorska, 2023; Grzelakowski & Matczak, 2010; Grzelakowski & Matczak, 2012; Kosek, 2019; Nowaczyk, 2013a; Cern, 2021). Managers of small seaports also use strategic planning methods, conducting a SWOT analysis and defining long-term goals, especially in the field of infrastructure investments. Cooperation with local authorities is another manifestation of strategic management, which is particularly visible when creating a development plan for coastal communes (Nowaczyk, 2016; Kowalczyk, 2010; Klimek, 2009).

Previous research on management and strategic planning in small seaports in Poland concerned determining the economic functioning of these entities and developing recommendations for the future (Klimek, 2009; Grzelakowski & Matczak, 2010, 2012; Kowalczyk, 2010; Nowaczyk, 2016). Grzelakowski (2010) points to international strategies that influence the conditions for the operation of seaports in Poland. In turn, Klimek (2009) points to the premises and barriers to implementing the strategy for the development of small seaports in Poland and the elements they should include.

Seaport managers in Poland adapt port development strategies to the EU's documents, such as the European Union Strategy for the Development of the Baltic Sea, and state documents, such as the Seaport Development Programme until 2020 (with a perspective until 2030). However, each entity managing small seaports creates its own development strategies and tries to implement them, as required by the Act of 20 December 1996 on Seaports and Harbours. Based on the literature search, external conditions were specified that determine the further functioning of small seaports in Poland.

Table 1. External conditions for the functioning of small seaports in Poland

External premises	Characteristic
Strict legal regulations regarding environmental protection	The 'fit for 55' package, an agenda 2030, state legal acts, natura 2000 areas, regulations on landscape parks
Focus on reducing pollution	Pollution emission monitoring systems in seaports and port communes, stakeholder expectations
Pressure on energy efficiency	Renewable energy sources, offshore wind farms
Geopolitical turmoil	Armed conflicts in Europe and around the world, conflicts with the European Commission, funds from the national reconstruction plan

Source: Own elaboration.

Strict legal regulations regarding environmental protection at sea and on land affect the operations of all seaports in the Baltic Sea (Table 1). It may be difficult for the managers of small seaports to adapt their activities to the 'Fit for 55' package due to difficulties in obtaining public funds. On the other hand, the introduction of environmental protection measures by the managers of small seaports can improve their competitiveness in the region. The stakeholders of these ports, such as shipowners or transshipment terminal operators, can be obliged to use systems that reduce the negative impact on the natural environment, and will therefore choose ports that provide them with such services. This applies in particular to the collection of sewage and ballast water from ships. In accordance with the Polish Energy Policy until 2040 (PEP 2040), adopted by the Council of Ministers in 2021, Offshore Wind Farms (OWF) are to be built with the capacity of 5.9 GW by 2030 and 11 GW ultimately (Energy Policy of Poland..., 2024). According to the assumptions of this policy, the use of Renewable Energy Sources (RES) is also to increase. Another condition determining the functioning of small seaports and their further development are the occurring geopolitical turmoil. The suspension of payments from the National Reconstruction Plan by the European Commission (EC) prevented the implementation of intended infrastructure projects in small seaports. Currently, these funds have been released, but work on improving the infrastructure is delayed. The armed conflict on the territory of Ukraine also increased the threat of cyberattacks or provocations targeting Polish seaports.

Research methodology

Small seaports in Poland are the subjects of completed research to be presented in this article. Certain criteria were used to compare the compliance of the identified strengths and weaknesses as well as opportunities and threats for small seaports with the Seaport Development Programme until 2020 (with a perspective until 2030) and the Supreme Audit Office's reports on

the functioning of these ports. The first criterion was serving as a regional port. The next selection criteria included the fulfilment of commercial, industrial, and passenger functions. On this basis, the ports in Kołobrzeg, Darłowo, Ustka, and Elbląg were selected for further analysis.

The subject of the described research includes the strategic documents of small seaports in Poland, the Ministry of Maritime Economy and Inland Navigation, as well as the Supreme Audit Office, all of which identify the strengths and weaknesses as well as opportunities and threats for port activities.

The time range of research from secondary sources covers the years 2017–2023. In turn, the spatial scope of the research covers the West Pomeranian, Pomeranian, and Warmian-Masurian regions in Poland.

The study applies desk research, literature analysis, and document analysis. Due to the identification of the characteristics of individual units, the case study method was also used.

The comparative analysis method was used to highlight the activities of individual seaports. The comparative approach focuses on assessing consistency between three sources: (1) the Seaport Development Programme (2018); (2) NIK audit reports (2017, 2023); and (3) development strategies of selected small ports (Ustka, Darłowo, Kołobrzeg, Elbląg). This triangulation ensures reliability but also allows for the identification of discrepancies.

The author's contribution is not to reproduce the existing SWOT tables, but to critically compare them, assess implementation gaps, and derive strategic recommendations. The spatial scope covers the Pomeranian, West Pomeranian, and Warmian-Masurian regions, while the temporal scope covers the years 2017–2023.

Results

The conditions surrounding small seaports in Poland affect their ability to operate and develop. The managers of these organisations should adapt their actions to the external legal, political, social, economic, and technological conditions.

The strengths and weaknesses as well as opportunities and threats were determined by the management boards of individual seaports. A strategic analysis for small seaports in Poland was also carried out by the Ministry of Maritime Economy and Inland Navigation in 2018, developing the Seaport Development Programme until 2020 (with a perspective until 2030). However, the compliance of the implementation of the state strategy in small seaports was examined by the Supreme Audit Office (NIK). The strategies of regional commercial ports such as Ustka, Darłowo, Kołobrzeg, and Elbląg describe compliance with European as well as state legal acts and strategies. The provisions in the development strategies of individual seaports do not translate into their application in practice. Based on the audit, a SWOT analysis was also prepared by the Supreme Audit Office.

In order to conduct a comparative analysis, the compliance of the strengths, weaknesses, opportunities, and threats of the seaports in Ustka, Darłowo, Kołobrzeg, and Elbląg as well as of the reports of the Supreme Audit Office with those specified in the Seaport Development Programme until 2020 (with a perspective until 2030) was assessed. The compliance was assessed by comparing the entries contained in the strategies of the examined ports, the Supreme Audit Office report, and the state programme. If the entries had the same meaning and were worded very similarly or identically, they were considered consistent with each other and were assigned a score of 1. If the entries in the studied strategies partially overlapped or their purpose was similar, they

were considered to be partially consistent, and a score of 0.5 was assigned to them. In the absence of phrases with a similar meaning, the strategies were considered inconsistent and a score of 0 was assigned (Tables 2, 3, 4, 5). Based on the sum of compatible entries in the strategies of seaports in Ustka, Darłowo, Kołobrzeg, and Elbląg, an overall assessment of their compliance was made.

Table 2. The compatibility of the strengths of the ports in Ustka, Darłowo, Kołobrzeg, and Elbląg with the NIK report as well as the Seaport Development Programme until 2020 (with a perspective until 2030)

SWOT according to the Seaports Development Programme	Seaport in Ustka	Seaport in Darłowo	Seaport in Kołobrzeg	Seaport in Elbląg	SWOT according to NIK
Strengths					
Attractive location	1	1	1	1	1
Field reserves	1	1	1	1	1
The implementation of many functions: economic, fishing, sailing, tourism	1	1	1	0.5	1
Modernised infrastructure	1	0.5	1	0.5	1
Sea border crossings	1	1	1	1	1
The involvement of the commune in the management of the seaport	1	1	1	1	1
The sum of consistent strengths in strategies	6/6	5.5/6	6/6	5/6	6/6

* 1 – means compliance; 0.5 – means partial compliance; 0 – means non-compliance.

Source: Own study based on the Darłowo Seaport Authority (2020), Kołobrzeg Seaport Authority (2010), Kołobrzeg Seaport Authority (2019), Ustka Seaport Authority (2019), Elbląg Seaport Authority (2019), MMGiZŚ (2018), NIK (2023), NIK (2017).

The strengths identified in the strategies of the seaports in Ustka, Darłowo, Kołobrzeg, and Elbląg are consistent with the Seaport Development Programme until 2020 (with a perspective until 2030), as well as with the report of the Supreme Audit Office. The strengths of small seaports in Poland identified by the Supreme Audit Office are completely consistent with the state programme (Table 2). The seaports in Kołobrzeg and Ustka have the highest degree of compliance. The port in Elbląg does not perform functions related to fishing, hence its development in the following years has not been determined, unlike the others. The strengths of small seaports in Poland mainly depend on their attractive geographical location for tourists, having land reserves and performing several functions at the same time.

The Seaport Development Programme until 2020 (with a perspective until 2030) identifies more weaknesses of small ports than their advantages. The limitations of individual seaports vary more than their strengths.

One of the main problems of small seaports in Poland is the complex ownership structure, which was also identified by as a weakness the ministry responsible for maritime economy (Table 3). Small seaports also have infrastructure that is not adapted to market needs and is mostly in insufficient technical condition. They are not directly connected to the main expressways or highways, which makes access to them difficult. They also have limited access to port facilities, mainly warehouses. Another problem is the failure to maintain the appropriate depth of approach tracks to ports. The

only exception is the port in Kołobrzeg. Too low revenues from port fees in relation to the costs of infrastructure maintenance limit investment and modernisation opportunities by the managers of these units. The activities of small seaports are also limited by the seasonal nature of their operations. The port in Elbląg is distinguished by a wider range of cargo and passenger services throughout the year compared to the others. The managers of the port in Darłowo were the only ones among the respondents who did not specify problems related to the lack of tourist information and to agreement with the commune regarding the promotion of the city and the port. The weaknesses of small seaports identified by the Supreme Audit Office were consistent with the SWOT analysis conducted by the competent ministry. The most discrepancies were found between the strategy of the port in Kołobrzeg and the state programme, which means that it can be more competitive.

Table 3. The compatibility of the weaknesses of the ports in Ustka, Darłowo, Kołobrzeg, and Elbląg with the NIK report as well as the Seaport Development Programme until 2020 (with a perspective until 2030)

SWOT according to the Seaports Development Programme	Seaport in Ustka	Seaport in Darłowo	Seaport in Kołobrzeg	Seaport in Elbląg	SWOT according to NIK
Weaknesses					
Complex ownership structure of port areas	1	1	1	1	1
Poor transport accessibility	1	1	0.5	1	1
Port infrastructure worn out or not adapted to market needs	1	1	0.5	1	1
Failure to maintain appropriate depths in the port and approach fairways	1	0.5	0	1	1
The seasonal nature of port operations	1	1	1	0.5	1
High infrastructure maintenance costs in relation to the revenues from port fees	1	1	1	1	1
Fragmentary municipalisation of port areas	0.5	0	0	1	1
Limited water connection between the Bay of Gdańsk and the Vistula Lagoon	0	0	0	1	1
Poor connection between ports and the hinterland	1	0.5	1	0.5	1
There is no information for tourists about the offer of municipalities and seaports	1	0	1	1	1
A small scale of operations of port authorities due to small capital	1	1	0.5	1	1
The sum of consistent weaknesses in strategies	9,5/11	7/11	6,5/11	10/11	11/11

1 – means compliance; 0.5 – means partial compliance; 0 – means non-compliance.

Source: Own study based on the Darłowo Seaport Authority (2020), Kołobrzeg Seaport Authority (2010), Kołobrzeg Seaport Authority (2019), Ustka Seaport Authority (2019), Elbląg Seaport Authority (2019), MMGiŻŚ (2018), NIK (2023), NIK (2017).

Despite the problems that small seaports in Poland face, they also have opportunities to develop and improve the results of their operations. The possibilities of using these opportunities depend on the economic situation of the country as well as the conditions resulting from the social, legal, and technological environment.

Table 4. The compatibility of the opportunities of the ports in Ustka, Darłowo, Kołobrzeg, and Elbląg with the NIK report as well as the Seaport Development Programme until 2020 (with a perspective until 2030)

SWOT according to the Seaports Development Programme	Seaport in Ustka	Seaport in Darłowo	Seaport in Kołobrzeg	Seaport in Elbląg	SWOT according to NIK
Opportunities					
Investments in the offshore industry	1	0.5	0.5	0	1
Developing the tourism market	1	1	1	1	1
Cluster development	1	0	0	0	1
Obtaining funds from the EU	1	1	1	1	1
Increasing access to ports from the sea	0.5	0	0	1	1
Increasing access to the TEN-T network	0.5	0.5	0.5	1	1
Including regional ports in the TEN-T network	0	0	0.5	0.5	1
Including ports in spatial development plans and municipal strategies	1	0.5	1	0.5	1
Linking road infrastructure investments to ports and municipalities	1	1	1	1	1
Aggregate reloading	0.5	0.5	1	1	1
Independence of the ports of the Vistula Lagoon	0	0	0	1	1
Field resources	1	1	1	0.5	1
Increasing cooperation between seaports and local governments		0.5	1	1	1
Developing fishing	0	0	0	0	1
Promotional activities of local governments, including seaports	0.5	0.5	0.5	0.5	1
Developing the fish market and fish consumption	0.5	0.5	0.5	0	1
Taking advantage of opportunities	1	1	1	1	1
The sum of consistent opportunities in strategies	10,5/17	8,5/17	10,5/17	11/17	17/17

* 1 – means compliance; 0.5 – means partial compliance; 0 – means non-compliance.

Source: Own study based on the Darłowo Seaport Authority (2020), Kołobrzeg Seaport Authority (2010), Kołobrzeg Seaport Authority (2019), Ustka Seaport Authority (2019), Elbląg Seaport Authority (2019), MMGiŻŚ (2018), NIK (2023), NIK (2017).

Investments in the development of the offshore industry are one of the main opportunities for small seaports in Poland (Table 4). Although installation ports are located in Gdańsk and Świnoujście, small seaports will play a service role. Service ports will be located in Ustka and Kołobrzeg. In the port of Darłowo, it is possible to increase transshipment by providing materials needed for the construction of Offshore Wind Farms. The development of tourism is an opportunity to increase revenues for all the surveyed ports. However, to enable the expansion and modernisation of ports, there is an opportunity to obtain funds from the EU and the National Reconstruction Plan. Connecting ports with the main expressways and motorways as well as the TEN-T network would increase the intra- and inter-modal competitiveness of these units. Including the development of port areas in municipal spatial development plans and establishing greater cooperation between small ports and local governments would be beneficial to both parties, especially in the post-pandemic period and the ongoing armed conflict in Europe. The port in Elbląg stands out with the highest compliance of the identified opportunities with the Seaport Development Programme until 2020 (with a perspective until 2030). By opening the Vistula Spit Cut, cargo turnover in this port and ship traffic will be increased. However, further deepening work is necessary to achieve the planned growth. The opportunities for small seaports included in the NIK report are fully consistent with the ministry's SWOT analysis.

The operation of small seaports is also conditioned by the existing threats. They are caused by the situation in the business environment.

One of the main threats to small seaports in Poland is the decline in the number of tourists (Table 5). In these ports, one of the main sources of revenue includes services provided to tourist ships and passengers. Lower tourist traffic also negatively affects the generation of revenues by municipal and private enterprises. One threat to the development of infrastructure in small seaports is the lack of attracting investors, without whom new facilities, such as production plants or warehouses, cannot be built. This problem was diagnosed by all the researched ports. The introduction of fishing restrictions results in a reduction in revenues from the berthing of fishing vessels and other dedicated services, especially for the ports in Ustka, Darłowo, and Kołobrzeg. Additional costs of the operating small seaports include the introduction of increasingly restrictive legal regulations, especially in the field of environmental protection. The geopolitical situation as well as the economic crisis also affects the development possibilities of seaports. The port in Kołobrzeg stands out with the lowest compliance of the number of identified threats with the programme developed by the competent ministry. However, most of the threats were diagnosed by the port authority in Elbląg. The threats to small ports identified by the Supreme Audit Office were consistent with the Seaport Development Programme until 2020 (with a perspective until 2030).

Based on the comparative analysis of the strengths and weaknesses as well as opportunities and threats for the seaports in Ustka, Darłowo, Kołobrzeg, and Elbląg with the Seaport Development Programme until 2020 (with a perspective until 2030), partial convergence in the field of strategic planning is visible. The audit of the activities of small seaports in Poland carried out by the Supreme Audit Office revealed inconsistencies with applicable legal acts as well as EU and state strategies. The assessment of the inspection carried out for small seaports in the West Pomeranian and Pomeranian regions was not positive (NIK, 2023). The analysed seaports differ from each other, but they perform similar functions related to tourist and cargo services. The port in Elbląg is unique in that it does not offer a fisheries service (MGMiZŚ, 2018).

Table 5. The compatibility of the threats of the ports in Ustka, Darłowo, Kołobrzeg, and Elbląg with the NIK report as well as the Seaport Development Programme until 2020 (with a perspective until 2030)

SWOT according to the Seaports Development Programme	Seaport in Ustka	Seaport in Darłowo	Seaport in Kołobrzeg	Seaport in Elbląg	SWOT according to NIK
Threats					
No local government plans for port development	0	0.5	0	0.5	1
Poorly developed port facilities	1	0	0	0.5	1
The lack of sufficient capital for the development and investment of deepening the approach track and ports from public funds	0.5	0	0	1	1
Too slow pace of the improvement of infrastructure parameters	0.5	0.5	0.5	0.5	1
The capital weakness of port managers	0.5	1	0.5	0.5	1
Possible decline in the number of tourists	1	1	1	1	1
No investors	1	0.5	1	1	1
No direct access to ports from the Vistula Lagoon, bypassing the territorial waters of the Russian federation	0	0	0	1	1
Fishing restrictions	1	1	0.5	0	1
The destruction of port infrastructure by extreme phenomena	0.5	0.5	0.5	0.5	1
The sum of consistent threats in strategies	6/10	5/10	4/10	6.5/10	10/10

* 1 – means compliance; 0.5 – means partial compliance; 0 – means non-compliance.

Source: Own study based on the Darłowo Seaport Authority (2020), Kołobrzeg Seaport Authority (2010), Kołobrzeg Seaport Authority (2019), Ustka Seaport Authority (2019), Elbląg Seaport Authority (2019), MMGiZŚ (2018), NIK (2023), NIK (2017).

The comparative analysis shows high consistency in identifying strengths (e.g. an attractive location, multiple functions, the involvement of local authorities) and weaknesses (e.g. fragmented ownership, poor accessibility, infrastructure deficits). Opportunities such as offshore industry development and tourism expansion are widely recognised, yet their implementation remains limited due to financial and institutional barriers.

Threats include the declining tourism, fishing restrictions, the lack of investors, and increasing regulatory pressure. The analysis reveals that while national and local documents align in diagnosing problems, actual implementation lags significantly, as confirmed by the NIK's audits.

Discussion

The analysis of the management challenges of small seaports in Poland highlights key issues related to the decentralisation of authority, insufficient financial resources, and the lack of coherence in development strategies. The Supreme Audit Office (NIK, 2023) indicates that the development of these ports is hindered by limited funding, which prevents their full potential from being realised.

The main problem in using the potential of these seaports is the inappropriate management method and the lack of the specification of the ports' functions for the state's economy, as pointed out by the members of the Association of Small Seaports (ZMPM) (ZMPM, 2024a). Strategies introduced by managers of small seaports are developed on the basis of EU and state legal acts and strategic documents, but their activities are not consistent with them. Blocking public funds, including the National Reconstruction Plan was the main reason for delays in the modernisation of infrastructure and the possibility of deepening the approach tracks to ports as well as port basins.

The management of ports by local government units leads to fragmented governance and the lack of coherence in implementing development strategies. Although strategies are developed based on the European Union's legal acts and state strategic documents, their implementation remains insufficient (Dźwigoł, 2014; Sulich & Sołoducho-Pelc, 2024).

The findings confirm earlier Polish studies pointing to ownership complexity and financial weakness as key barriers (Klimek, 2009; Grzelakowski & Matczak, 2010). However, the comparative approach shows that alignment with EU and state strategies does not guarantee implementation. This supports theoretical arguments that strategic management requires not only planning but also adaptive capacity and resources (Dźwigoł, 2014; Sulich & Sołoducho-Pelc, 2024).

From the international perspective, small ports in Poland face similar challenges to those faced by small and medium ports in other EU countries. These include insufficient capital, dependence on local governments, and vulnerability to external shocks. However, the Polish case is unique due to the high reliance on municipalities as port managers, leading to fragmented governance and weak coordination of activities (Kosek et al., 2024).

The developmental potential of Polish small seaports is linked to investments in offshore wind energy. Being service ports for the offshore industry will contribute to the creation of new jobs, the development of specialised education, and local business growth. However, due to the insufficient condition of port infrastructure, the current functions performed by these ports are not fully realised (Kosek et al., 2024).

Conclusions

A general summary

Developmental strategies for small seaports in Poland are consistent with applicable legal acts. The strengths and weaknesses as well as opportunities and threats identified by the management of small seaports are mostly consistent with the Seaport Development Programme until 2020 (with a perspective until 2030). The SWOT analysis included in the report prepared by the Supreme Audit Office is fully consistent with the Seaport Development Programme until 2020 (with a perspective until 2030). The inspection carried out in 2017 for the port of Elbląg and in 2022 for small seaports in the Pomeranian and West Pomeranian regions showed general compliance of the developed

strategies of these ports with legal acts and EU and state strategies, but they were not only fully implemented by the management boards of these entities. The NIK's audits revealed financial fraud and negligence in the performance of accounting duties. One of the main problems of the managers of small seaports is the lack of sufficient funds to implement planned investments. Local governments or companies appointed by them, acting as seaport managers, point to the problem of the indeterminate role of ports for the state's economy as well as the lack of funding.

The analysis shows that while strategic documents and audits identify relevant strengths, weaknesses, opportunities, and threats, implementation is inconsistent and often ineffective. The main gaps include insufficient financing, an unclear role of small seaports in the national strategy, and weak coordination between local and national levels.

Practical implications and recommendations

Possible improvement in strategic management in small seaports in Poland could be more effective and efficient if disputes between the managing bodies and the competent ministry were limited, and if public financing was increased. In this light, the recommendations include:

- establishing clearer legal and functional roles of small ports in national maritime policy;
- strengthening financing instruments, including EU and state funds dedicated to small ports;
- enhancing cooperation between port authorities, municipalities, and the relevant ministry;
- using offshore industry development as a catalyst for upgrading infrastructure and skills.

The port in Ustka is distinguished by the good condition of the quays (min. 75%) and the location for the offshore industry. Service facilities for Offshore Wind Farms for the operator PGE Baltica are to be built in the port of Ustka by 2026. The current weakness of this port is the lack of infrastructure that could be used for the offshore industry. One opportunity for the development of this port is the construction of an expressway and the Ustka bypass, which will increase access to the seaport. In turn, the threat is the lack of intra- and inter-industry competition.

The seaports in Kołobrzeg and Darłowo have similar developmental opportunities. The port in Kołobrzeg was selected as a service base for Offshore Wind Farms by the operator Orlen Neptun, which will operate the installation port in Świnoujście (TVP 3, 2024). The launch of this function for the port in Darłowo is also being considered. These ports detail the accessibility from the sea and the depth of approach fairways and port basins compared to other central coast ports. An opportunity for the port of Elbląg is the opening of the Vistula Spit Cut in 2022, which should be deepened in the coming years to enable the movement of cargo ships. However, the proximity of the Tri-City ports limits the competitiveness of the port in Elbląg and serves as a feeder.

Due to the planned investments of the offshore industry in Poland, the potential of small seaports should be used and the construction of a service base should be completed. There is a maritime high school in Darłowo that could educate specialists in the offshore industry. By developing this industry, the surrounding coastal communes could obtain financial resources for development as well as reduce unemployment. The relevant ministry should increase cooperation with the managers of small seaports and define directions of action for the coming years. Cooperation between seaport authorities and local governments should also be increased in order to develop new spatial developmental plans.

This article contributes by transforming descriptive SWOT findings into a critical comparative assessment, enriching both practical recommendations and theoretical discussion on the strategic management of small seaports.

Research limitations

The comparative study of SWOT analyses prepared by the relevant ministry, the Supreme Audit Office, and individual seaport authorities was prepared on the basis of the available secondary sources. The probability of the occurrence of individual factors was not assessed, which made it impossible to select a given competitive strategy for the surveyed entities.

Suggestions for future research directions

Future research on developing a new SWOT analysis for small seaports in Poland should be supplemented with the probability of identified strengths, weaknesses, opportunities, and threats. Based on a full strategic analysis, a competitive strategy for these entities should be developed. It would also be useful to conduct a survey among the managers of small seaports to verify the analyses carried out.

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Data Availability Statement

All data will be available and shared upon request.
