2023, Volume 5 Number 1 DOI: 10.24136/tren.2023.003 ISSN 2658-1698, e-ISSN 2658-2120

# DETERMINING THE STRATEGIC POSITION OF CAR-SHARING SERVICES IN POLAND **BASED ON THE STAKEHOLDER ANALYSIS METHOD**

#### Maria Cieśla 📵



<sup>1</sup>Silesian University of Technology, Faculty of Transport and Aviation Engineering Department of Transport Systems, Traffic Engineering and Logistics, Krasińskiego 8, 40-019 Katowice, Poland, e-mail: maria.ciesla@polsl.pl, https://orcid.org/0000-0003-4566-6554

### Reviewed positively: 22.10.2022

#### Information about quoting an article:

Cieśla M. (2023). Determining the strategic position of car-sharing services in Poland based on the stakeholder analysis method. Journal of civil engineering and transport. 5(1), 37-45, ISSN 2658-1698, e-ISSN 2658-2120, DOI: 10.24136/tren.2023.003

Abstract - This article presents the use of the stakeholder analysis method to characterize the strategic position of carsharing services in Poland. The theoretical part presents a detailed theory of stakeholders, as well as detailed methods and the course of the interest group analysis procedure. It covers the fundamentals of stakeholder theory which refers to the concept of strategic planning, system theory, organization theory, social responsibility and strategic management. The characteristics of stakeholder analysis are presented together with mostly used methodology. The focus is put on most common analysis tools including the matrix of M. Johanson and K. Scholes based on the earlier Mendelow matrix and the map of stakeholders. The legitimacy and benefits of using the discussed method to determine the strategic position of modern and developing services have been presented. The research part presents an example of the use of the stakeholder analysis method in the Polish sector of car sharing services. The car-sharing services company stakeholder analysis of 23 entities provided knowledge on building relationships with employees and their involvement in the company's processes. The analysis made it possible to improve the strategic position of the company and determination of its position in negotiations with other organizations.

**Key words** – stakeholder analysis, stakeholders, car-sharing services, strategic position

JEL Classification - C81, L14, L90, O11, R42

#### INTRODUCTION

The transport services market, as a structure of complex connections between numerous entities, generates the need to obtain and analyse information from the business environment to optimize the decisions made in a specific strategic context. Employees of service enterprises, shareholders, suppliers, customers, competitors or other types of regulatory institutions are the most important entities associated with the organization. Stakeholder analysis as one of the methods of studying the macro-environment allows for getting to know and hierarchizing groups and individual entities that have an impact on the service enterprise, on which it affects due to the strength of influence and the degree of dependence. The discernment of interest groups may be an important element in the process of shaping the strategies of modern enterprises that provide modern and developing services. It allows to make key decisions based on knowledge about the general environment of the company and the

distribution of forces in the network of dependencies in which the organization operates.

The concept of stakeholder analysis is differently defined and described in the literature on the subject. The analysis of the factors influencing its different understanding also reflects the methodology of proceeding in selecting groups of stakeholders.

The scientific aim of this article is to characterize the theory of stakeholder analysis and to present a practical example for car-sharing services company located in Poland. The procedure for grouping stakeholders based on the Mendelow matrix was presented and the results of the complexity of relationships and dependencies of entities were strategically interpreted.

The research problem is concerned with determination of strategic position of car-sharing services in Poland. The research hypothesis is based on the statement that it is possible to draw a strategic position of car-sharing services in Poland based on stakeholder analysis.

#### 1. STAKEHOLDER THEORY

The theory of stakeholders in its essence refers to the concept of strategic planning, system theory, organization theory, social responsibility and strategic management. It also functions strongly in the theory of supervision over the enterprise, and more precisely: the social model of the organization opposite to the financial model as an entity acting in the service of owners (shareholders, share-holders, etc.) [1]. The emergence of the stakeholder theory is associated with the assumption that values are a fundamental element of the activities of enterprises and institutions [2]. This theory analyses the nature of the relationship from the point of view of mutual benefits that it brings both to the organization and its stakeholders [3]. The concept of stakeholders indicates a new mechanism for distributing benefits to enterprises other than a specific, established once and for all share of given groups in the total benefits generated by the company.

Stakeholders influencing the activities of service enterprises and being influenced by its activities can be divided into two groups: internal and external. The first group of stakeholders are entities influencing the company from the inside, i.e. owners, i.e. shareholders, shareholders, individual owners or the supervisory board, as well as employees of various levels - headed by managers. The second group of stakeholders consists of various types of entities operating in the environment of a service enterprise, which include investors and other partners in various forms of cooperation, suppliers, recipients, financial institutions, i.e. banks or insurance companies, technology suppliers, state, local and local government authorities, social and educational institutions and any pressure groups etc.

# 2. STAKEHOLDER ANALYSIS

The main purpose of the stakeholder analysis method is to identify, assess and analyse the strength of its impact (impact), as well as its scope, characteristic for various types of stakeholders, in the process of shaping the company's operating strategy, and in a broader sense - on the way it is organized and operated. The essence of stakeholder analysis can be defined as identifying and then examining the strategic partners of the organization [4].

Stakeholder analysis identifies the following characteristics:

- the relative power and interests of each stakeholder;
- the importance and influence of each stakeholder;
- multiple interests or roles of a stakeholder;
- the networks and agreements to which they belong [5].

#### **STAKEHOLDER RESEARCH METHODOLOGY**

The research methodology in the stakeholder analysis is interpreted differently and consists of different levels, its simplest formula is presented by a three-step method that allows for the identification of three types of stakeholders: strategic, important and other. The main stages are following:

- stakeholder identification, consisting in drawing up a list of possible stakeholders based on the collection and development of views, documentation analysis, and role analysis, bearing in mind that at this stage stakeholders are not selected due to their importance,
- characteristics of the stakeholders, which include their quantitative and qualitative description, considering their claims (expectations), grounds for enforcing these claims (grounds for establishing relationships) and defining a strategy for the enforcement of claims of individual stakeholders,
- determining the importance of individual stakeholders, which can be made using the evaluation scheme, based on the criterion of the possibility of stakeholders influencing the organization and articulating their interests (however, it should be remembered that the importance of individual stakeholders is determined each time for a specific situation of the organization) [6].

Identification of key stakeholders is usually the first step in the process of both analysing the environment and building relationships between them and organizations. The second is to determine the strength of the influence that they can exert on a given service enterprise and their interrelationships. The third step is to manage the relationships that develop between the organization and its stakeholders [7, 8].

### **STAKEHOLDER ANALYSIS TOOLS**

There are many theoretical approaches to the analysis of the impact of the company's stakeholders, which in a certain way shape its functioning and organization, including the matrix of M. Johanson and K. Scholes based on the earlier Mendelow matrix and the map of stakeholders are the most common of them.

Defining the relationship between the stakeholders and the organization, i.e. the second stage of their analysis, begins with defining their and the organization's mutual expectations. The purpose of this stage is to verify the actual state of the company's relations with its stakeholders, which is often out of touch with reality, and to update the opinions of two partners (organizations and related entities).

transEngin 2023, Volume 5 Issue 1

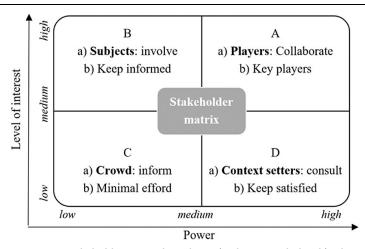


Fig. 1. Power versus interest stakeholder matrix based on: a) Johnson&Scholes, b) Eden&Ackermann (own elaboration based on [10, 11])

Table 1. Sources and indicators of power [12]

Internal stakeholders	External stakeholders
<ul> <li>status, e.g., position in the organisational</li> </ul>	<ul> <li>control of strategic resources</li> </ul>
hierarchy	<ul> <li>relative size of shareholdings or loans</li> </ul>
<ul> <li>representation, e.g., committees they may be on</li> </ul>	dependence on small number of customers
<ul> <li>involvement in strategic decision making</li> </ul>	<ul> <li>reliance on small number of customers</li> </ul>
- reputation	<ul> <li>negotiating arrangements</li> </ul>
<ul> <li>informal influence</li> </ul>	<ul> <li>status, e.g., is the customer or supplier wined</li> </ul>
– expertise	and dined?
<ul> <li>grade or salary</li> </ul>	<ul> <li>at what level is the customer or supplier</li> </ul>
<ul> <li>claim on resources, e.g., size of budget or</li> </ul>	'managed' by the organisation?
number of workers	
<ul> <li>symbol of power, e.g., size and location of office</li> </ul>	
or secretarial support.	

Mendelow's Matrix was created in 1991 to analyse individual stakeholders by measuring their interest and power. This information can then be used to deter-mine their potential level of impact on a big business decision [9]. The matrix was later was adapted by Johnson&Scholes [10] to indicate the type of strategy the organization needs to adopt in relation to each stakeholder group.

Similarly, Eden&Ackermann also considered low and high power and interest results in four quadrants and stakeholder groups: players, subjects, context setters, and crowd [11]. The similarity of these approaches is shown in Figure 1.

The scheme of the portfolio type is used to divide the group of stakeholders into four categories

symbolized by the fields of the matrix. It considers two variables: the strength and level of impact and interest in the company, as well as the creation of plans to deal with specific groups of stakeholders by the organization/company.

To facilitate the assessment of power and potential influence of the stakeholders, many factors can be identified as shown in Table 1.

The first proposal of a stakeholder map, as a technique of detailed analysis of the organization's environment, was presented by R.E. Freeman [13, 14]. However, it currently comes in different variants. In such a map, the organization is centrally located, and the stakeholders create an environment around it, as shown in Figure 2.



Fig. 2. Stakeholder map (source: [15])

The technique of stakeholder analysis based on mapping is one of the simplest methods of identifying the partners of an organization and allows to create an overall picture of their importance and relationship with them. It is the initial part of the identification, allowing to draw appropriate conclusions, leading to the establishment of the company's relationship with its stakeholders. It may be ap-propriate to supplement the stakeholder map with information on the relationship of the organization with all its stakeholders separately.

## STAKEHOLDER RESEARCH IN TRANSPORTATION FIELD

Even though research and materials have been known for years, the methodology is still used in current studies, including those concerning transport and transport services. Many authors concentrate on stakeholder analysis as it is a fundamental to reproduce the existing network of relationships among the multiple actors in transport planning [16-18]. It is very important as to different extents they can influence and are influenced with the final decision on transport system development [19, 20]. The research of stakeholders influencing transportation system is analyzed from many areas. Special considerations are visible among urban freight transport with comparative analysis [21], multimodal [22] and intermodal transborder freight system to satisfy broader policy objectives of local authorities and commercial corporate interests [23] and strengthen acceptability of urban freight transport policies [24].

There are elaborations on passenger urban transport [25] and approaches to sustainable mobility visioning and planning [26]. The research among stakeholders increase promoting the improvement of urban transportation sharing systems [27-29], including bike-sharing [30, 31], electric scooter and moped-sharing system and electric car-sharing systems. A research concerning Polish transport sharing services are found for Tricity [32, 33] and other cities [34].

# 3. STAKEHOLDER ANALYSIS OF CAR-SHARING SERVICES COMPANY

The stakeholder analysis was based on Polish companies providing rental services of alternative means of transport, electric cars, which are the subject of the car-sharing service. This term applies to car rentals, which are designed to replace the possession of private cars, by renting a car for a specified period, converted in specific units, most often in minutes.

Car-sharing differs from traditional car rental companies in the following aspects:

- car-sharing is not limited by office work,
- the reservation, collection and return of the car are the responsibility of the user,
- vehicles can be rented for minutes, hours, but just as well for days,
- users are members and have been pre-approved to drive (their driving license has been checked and the payment mechanism has been established),
- cars are spread over the service area and are often easy to reach by public transport,

transEngin 2023, Volume 5 Issue 1

- the insurance is included in the rental cost,
- fuel is often included in the rental price,
- for some operators, vehicles are not serviced (cleaned, refuelled) after each rental.

The car-sharing service is most often found in large cities with high population density [35]. In terms of fixed and variable costs, car-sharing differs from the costs of operating a private passenger car because the fixed and the variable costs of car-sharing are lower than that of a private passenger car [36]. It is especially visible in the case of occasional use of carsharing.

The greatest development of car sharing services took place at the turn of the 20th and 21st centuries, when this service began to appear in the largest Europe-an, American and Asian cities, which made it increasingly popular among car users [37].

The first car-sharing service in Poland was launched in Warsaw in September 2016 by 4Mobility S.A. Currently, there are six service providers in Poland offering mainly passenger cars: 4Mobility, EasyShare, ETNA Carsharing, MiiMove, PANEK CarSharing, PKP Mobility and Traficar, and two companies offering car-sharing vans: Citybus and Wozibus.

The stakeholder analysis procedure for one of the companies being the subject of this case study follows the methodology described in the first part of the work, i.e. it is divided into three phases:

identification and characterization of the organization's stakeholders, determining the relationship between the stakeholders and the company, and drawing conclusions that are a synthesis of the findings.

# IDENTIFICATION AND CHARACTERISTICS OF THE STAKEHOLDERS OF A CAR-SHARING COMPANY

In the first phase of the initial stage of the discussed methodology of stakeholder analysis, the organization's stakeholders are selected. Groups and individual entities that are related to a different degree with the enterprise, among which stakeholders should be acquired, helps to establish a map that presents the stakeholders of the enterprise with a larger scale of operations. During the selection process, the stakeholders with whom relations are important (to a different extent) from the point of view of the company's car-sharing services are identified, i.e. those that should be considered when designing the strategy, and the relationships on which the company influences. Based on the map and after narrowing down the groups and entities of interest to the most important ones (without prioritizing them at this stage), a general map of interest groups was drawn up, along with categories for the car-sharing services enterprise, presented in Figure 3.

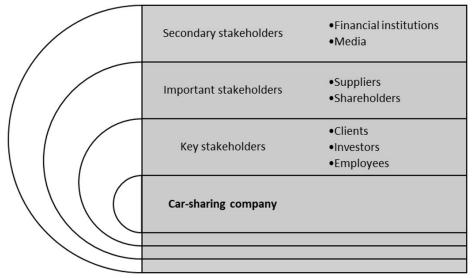


Fig. 3. Car-sharing company stakeholder groups map (source: own elaboration)

Stakeholders of a car-sharing company can be classified into three groups. The most important stakeholders are those who influence the company from the in-side, i.e. clients of car-sharing services,

investors and employees. Suppliers and shareholders groups are considered important stakeholders. Financial institutions and medias were classified as secondary stakeholders.

Detailed characteristics of the Stakeholder groups of car-sharing services company are presented in Table 2.

Customers constitute a very important group of stakeholders, among whom we distinguish both individuals and institutions. Some entities from the group of investors may become a threat to the enterprise, because there is a noticeable trend of launching own car-sharing services by leasing companies, IT companies, and even banks (e.g. ING Bank Śląski).

In car sharing, the availability of vehicles on the streets and the distance the customer has to cover to rent a car are crucial, so the owners of rented areas group are very important. However, the so-called free-floating, i.e. an open parking model. A rich fleet of vehicles, including the provision of vans, is a challenge for car companies, and may significantly expand the range of the company's services. Dependence on various financial institutions is obvious, but it is also worth emphasizing the influence of the media on the perception of car-sharing services.

# ANALYSIS OF THE RELATIONSHIP BETWEEN STAKEHOLDERS AND A CAR-SHARING COMPANY

The next stage of the research was the analysis of

the relationship between the stakeholders and the car-sharing company. To this end, two parameters on a scale of 0-10 were determined for all 23 stakeholders: the impact strength and the probability of involvement. This allowed for the creation of Mendelow's matrix in the form of a grid shown in Figure 4.

As can be seen from the relationship matrix, the largest group of stakeholders of car-sharing services company are nine key players, importantly: the entire group of clients (individual and business clients, enterprises and insurance companies), almost all investors (main and individual investors, banks and administrative bodies) as wells as two stakeholders (leasing companies, car concerns) and students or people with disabilities working in the company. The company has the greatest connection with key stakeholders: they are very interested and influenced by the situation in the company and are also the most active recipients. First, informed about current promotions and new products, participants of loyalty programs should remain in a permanent and lasting relationship with the service company. The company focuses primarily on these strategic stakeholders from its point of view.

Table 2. Stakeholder groups of car-sharing services company

Stakeholder group	Stakeholder characteristics
Clients	- (C1) - individual clients
	<ul> <li>(C2) - enterprises (company vehicles)</li> </ul>
	<ul> <li>(C3) - business clients</li> </ul>
	<ul> <li>(C4) - insurance companies (replacement cars)</li> </ul>
Investors	<ul><li>(I1) - main investor</li></ul>
	<ul> <li>(I2) - individual investors</li> </ul>
	– (I3) - banks
	<ul> <li>(I4) - administrative bodies (town hall / commune office)</li> </ul>
Employees	<ul> <li>(E1) - permanent employees</li> </ul>
	<ul> <li>(E2) - potential employees</li> </ul>
	<ul> <li>(E3) - students / people with disabilities</li> </ul>
Suppliers	<ul> <li>(S1) - spare car parts distributor</li> </ul>
	<ul> <li>(S2) - energy supplier</li> </ul>
	<ul> <li>(S3) - software and hardware supplier</li> </ul>
Shareholders	<ul> <li>(H1) - leasing companies</li> </ul>
	<ul><li>(H2) - car concerns</li></ul>
	<ul> <li>(H3) - owners of rented areas (e.g. rental of premises, car</li> </ul>
	park)
Financial institutions	<ul> <li>(F1) - National Bank of Poland</li> </ul>
	<ul> <li>(F2) - Polish Financial Supervision Authority</li> </ul>
	<ul> <li>(F3) - Ministry of Finance</li> </ul>
Media	<ul><li>– (M1) - advertisers</li></ul>
	<ul> <li>(M2) - web portals and website service providers</li> </ul>
	<ul> <li>(M3) - non-governmental organizations</li> </ul>

transEngin 2022, Volume 5 Issue 1

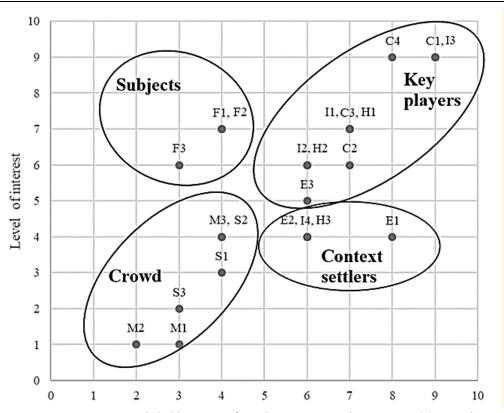


Fig. 4. Power versus interest stakeholder matrix of car-sharing company (source: own elaboration)

The next field of the matrix relates to stakeholders qualified as **subjects**, which include all financial institutions (National Bank of Poland, Polish Financial Supervision Authority and Ministry of Finance). The car-sharing company's strategy with respect to these entities should be to provide information on various aspects of the company's operations to maintain the legitimacy of its operations.

The next field of the matrix presents stakeholders qualified to the **context settlers'** group, with whom relations are based on maintaining satisfaction. In the case of owners of rented areas and permanent or potential employees, this means compliance with agreements and applicable terms of cooperation and taking care of the company's image by means of marketing communication in the case of administrative bodies.

An example of entities that require minimal effort from a car-sharing company is the six medias and suppliers representing the **crowd** in the rest of the matrix. Relations with them mainly include obtaining products and services needed by the company and

maintaining a good image of the company.

The presented analysis of the stakeholders of carsharing services company can become the basis for strategic activities focused on optimization and building lasting and mutually beneficial relations with internal and external audiences. The stakeholder analysis is a kind of insight into the specificity of the entities with which the company interacts, gives an idea of their expectations and needs, and ultimately allows you to build effective relationships that become one of the foundations of the company's position on the market.

# **CONCLUSIONS**

The concepts and methods presented in the case study presented in this article can be an important source of company knowledge about the macro-environment (general environment) and constitute a starting point for actions at the level of strategic planning. Stakeholder analysis allows for the identification of entities and interest groups. Making their hierarchy, comparing the strength of their impact on the enterprise

with mutual expectations and needs, and ultimately its effects serve as a guide to creating effective relationships in a constellation of mutual connections, of which every, even the smallest, enterprise is a part.

The main benefits of the car-sharing services company stakeholder analysis are deepened knowledge of the market as a structure of multilateral connections. By using selected techniques of detailed stakeholder analysis, the company can predict or identify possible weak points in relations with stakeholders and to design market-justified crisis management strategies. The car-sharing services company stakeholder analysis provided knowledge on building relationships with employees and their involvement in the company's processes. Out of 23 stakeholders, it was possible to assign 10 to key players, 3 to subjects, 4 to context settlers and 6 to the crowd, and to establish a procedure for these groups. The analysis made it possible to improve the functioning by improving relations with organizations and allowed for the effective determination of the strategic position of the company and determination of its position in negotiations with other entities. In conclusion, the theory of stakeholders and their analysis are applied in the practice of company management, which is an important step on the way to optimizing its long-term functioning.

## **OKREŚLENIE POZYCJI STRATEGICZNEJ USŁUG CAR-SHARINGU W POLSCE W OPARCIU METODĘ ANALIZY INTERESARIUSZY**

W niniejszym artykule przedstawiono wykorzystanie metody analizy interesariuszy do scharakteryzowania pozycji strategicznej usług car-sharingu w Polsce. W części teoretycznej przedstawiono szczegółową teorię interesariuszy, a także przedstawiono metody szczegółowe oraz przebieg procedury analizy grup interesu. Obejmuje podstawy teorii interesariuszy, która odnosi się do koncepcji planowania strategicznego, teorii systemów, teorii organizacji, odpowiedzialności społecznej i zarządzania strategicznego. Przedstawiono charakterystykę analizy interesariuszy wraz z najczęściej stosowaną metodologią. Nacisk kładziony jest na najpowszechniejsze narzędzia analityczne, w tym macierz M. Johansona i K. Scholesa opartą na wcześniejszej macierzy Mendelowa oraz na mapie interesariuszy. Przedstawiona została zasadność i korzyści wynikające z zastosowania omawianej metody do określenia pozycji strategicznej nowoczesnych i rozwijających się usług. W części badawczej przedstawiono przykład wykorzystania metody analizy interesariuszy w polskim sektorze usług współdzielenia pojazdów samochodowych. Analiza 23 interesariuszy podmiotu świadczącego usługi carsharingu dostarczyła wiedzy na temat budowania relacji z pracownikami i ich zaangażowania w procesy firmy. Analiza pozwoliła na poprawę strategicznej pozycji firmy i określenie jej pozycji w negocjacjach z innymi organizacjami.

Słowa kluczowe: analiza interesariuszy, interesariusze, usługi car-sharing, pozycja strategiczna

#### REFERENCES

- [1] Freeman R.E., Reed D.L. (1983). Stockholders and stakeholders: A new perspective on corporate governance. California management review, 25(3),
- [2] Freeman R.E., Wicks A.C., Parmar B. (2004). Stakeholder theory and the corporate objective revisited". Organization science, 15(3), 364-369. https://doi.org/10.1287/orsc.1040.0066
- [3] Paliwoda-Matiolańska A. (2009). Odpowiedzialność społeczna w procesie zarządzania przedsiębiorstwem, Wyd. C.H. Beck, Warszawa, ISBN 978-83-255-6213-7.
- [4] Lisiński M. (2004). Metody planowania strategicznego, Polskie Wydawnictwo Ekonomiczne, Warszawa, ISBN 83-208-1525-8.
- [5] Sutherland J., Canwell D. (2007). Klucz do zarządzania strategicznego. Najważniejsze teorie, pojęcia, postacie, Wydawnictwo Naukowe PWN, Warszawa, ISBN 978-83-011-5084-6.
- [6] Trocki M., Grucza B. (2004). Analiza interesariuszy. Wyd. Bizzare, Warszawa, ISBN 83-919618-9-3.
- [7] Kozina A. (2007). Analiza interesariuszy w planowaniu negocjacji, 193-207 [In:] Planowanie strategiczne w warunkach niepewności (ed. Rafał Krupski) nr 22. Prace Naukowe, Wałbrzyska Wyższa Szkoła Zarządzania i Przedsiębiorczości. Seria: Zarządzanie i Marketing, ISBN 978-83-920319-9-4.
- [8] Domański J. (2010). Zarządzanie strategiczne organizacjami non profit w Polsce, Wyd. Wolters Kluwer, Warszawa, ISBN 978-83-7526-752-5.
- [9] Mendelow A. (1991). Stakeholder mapping. Proceedings of the 2nd International Conference on Information Systems, Cambridge.
- [10] Johnson G., Scholes K. (1999) Exploring Corporate Strategy. Text and Cases, Prentice Hall, London.
- [11] Ackermann F., Eden C. (2011). Making strategy: Mapping out strategic success. Sage Publications. ISBN: 978-1849201209.
- [12] Johnson G., Scholes K., Whittington R. (2008). Exploring corporate strategy: Text and cases. Pearson education, London. ISBN: 978-0-273-71191-9
- [13] Parmar B.L., Freeman R.E., Harrison J.S., Wicks A.C., Purnell L., De Colle S. (2010). Stakeholder theory: The state of the art. Academy of Management Annals, 4(1), 403-445. https://doi.org/10.5465/19416520.2010.495581
- [14] Freeman R.E., Phillips R., Sisodia R. (2020). Tensions in
- stakeholder theory. Business & Society, 59(2), 213-231. https://doi.org/10.1177/0007650318773750
- [15] Preble J.F. (2005). Toward a comprehensive model of stakeholder management. Business and society review, 110(4), 407-431. https://doi.org/10.1111/j.0045-3609.2005.00023.x

transEngin 2022, Volume 5 Issue 1

[16] Le Pira, M., Ignaccolo, M., Inturri, G., Pluchino, A., Rapisarda, A. (2016). Modelling stakeholder participation in transport planning. Case Studies on Transport Policy, 4(3), 230-238.

- [17] Ghorbanzadeh, O., Moslem, S., Blaschke, T., Duleba, S. (2018). Sustainable urban transport planning considering different stakeholder groups by an interval-AHP decision support model. Sustainability, 11(1), 9.
- [18] Gatta, V., Marcucci, E., Delle Site, P., Le Pira, M., Carrocci, C. S. (2019). Planning with stakeholders: Analysing alternative off-hour delivery solutions via an interactive multi-criteria approach. Research in Transportation Economics, 73, 53-62.
- [19] Moslem, S., Ghorbanzadeh, O., Blaschke, T., Duleba, S. (2019). Analysing stakeholder consensus for a sustainable transport development decision by the fuzzy AHP and interval AHP. Sustainability, (11)12, 3271.
- [20] Yannis, G., Kopsacheili, A., Dragomanovits, A., Petraki, V. (2020). State-of-the-art review on multi-criteria decision-making in the transport sector. *Journal of traffic and transportation engineering* (English edition), 7(4), 413-431.
- [21] Ballantyne, E. E., Lindholm, M., Whiteing, A. (2013). A comparative study of urban freight transport planning: addressing stakeholder needs. *Journal of transport geography*, 32, 93-101.
- [22] Kramarz, M., Knop, L., Przybylska, E., Dohn, K. (2021). Stakeholders of the Multimodal Freight Transport Ecosystem in Polish-Czech-Slovak Cross-Border Area. *Energies*, 14(8.), 2242.
- [23] Kordnejad, B. (2016). Stakeholder analysis in intermodal urban freight transport. *Transportation Research Procedia*, 12, 750-764.
- [24] Le Pira, M., Marcucci, E., Gatta, V., Ignaccolo, M., Inturri, G., Pluchino, A. (2017). Towards a decisionsupport procedure to foster stakeholder involvement and acceptability of urban freight transport policies. *European Transport Research Review*, 9(4), 1-14.
- [25] Gonzalez-Feliu, J., Pronello, C., Grau, J. M. S. (2018). Multi-stakeholder collaboration in urban transport: State-of-the-art and research opportunities. *Transport*, 33(4), 1079-1094.
- [26] Foltýnová, H. B., Vejchodská, E., Rybová, K., Květoň, V. (2020). Sustainable urban mobility: One definition,

- different stakeholders' opinions. *Transportation Research*, Part D: *Transport and Environment*, 87, 102465.
- [27] Shi, J. G., Si, H., Wu, G., Su, Y., Lan, J. (2018). Critical factors to achieve dockless bike-sharing sustainability in China: A stakeholder-oriented network perspective. *Sustainability*, 10(6), 2090.
- [28] Dreyer, B., Lüdeke-Freund, F., Hamann, R., Faccer, K. (2017). Upsides and downsides of the sharing economy: Collaborative consumption business models' stakeholder value impacts and their relationship to context. *Technological forecasting* and social change, 125, 87-104.
- [29] Turoń, K., Kubik, A., Chen, F. (2021). Electric shared mobility services during the pandemic: Modeling aspects of transportation". *Energies*, 14(9), pp 2622.
- [30] Jia, L., Liu, X., Liu, Y. (2018). Impact of different stakeholders of bike-sharing industry on users' intention of civilized use of bike-sharing". Sustainability, 10(5), 1437.
- [31] Ma, F., Shi, W., Yuen, K. F., Sun, Q., Guo, Y. (2019). Multi-stakeholders' assessment of bike sharing service quality based on DEMATEL-VIKOR method. *International Journal of Logistics Research and Applications*, 22(5), pp 449-472.
- [32] Rześny-Cieplińska, J., Szmelter-Jarosz, A. (2021). Stakeholders' Analysis of Environmental Sustainability in Urban Logistics: A Case Study of Tricity, Poland. *Energies*, 14(5), 1274.
- [33] Rześny-Cieplińska, J., Szmelter-Jarosz, A., Moslem, S. (2021). Priority-based stakeholders analysis in the view of sustainable city logistics: Evidence for Tricity, Poland. Sustainable Cities and Society, 67, 102751.
- [34] Wołek, M. (2017). Car sharing as an element of sustainable urban mobility: Some conclusions for Polish cities. *Transport Economics and Logistics*, 70, 65-73.
- [35] Larisch R. (2014). Car Sharing. Biblioteka Źródłowa Energetyki Prosumenckiej.
- [36] Litman T. (2000). Evaluating carsharing benefits. Transportation Research Record, 1702(1), 31-35. https://doi.org/10.3141/1702-04
- [37] Kubera M. (2018). Geneza i rozwój carsharingu w Polsce. Z. Naukowe Politechniki Częstochowskiej, Zarządzanie, 31, 119-133.