



# Knowledge in economic terms: significance of information in a modern company

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## Abstract

**Motivation:** Knowledge is a collection of reliable information on the reality with the ability to use it. Information on the other hand is a set of communication messages, including beliefs of individuals, their views and ideas, scientific laws and theories as well as art and subjective opinions. Information has always constituted a material and form of experiencing humanity. It is necessary for making decisions.

**Aim:** The purpose of the article is to: (1) define key terms included in the study, (2) present the role of information in a modern company on the example of municipal management entities in correlation with information needs of stakeholders from this sector.

**Results:** Defining the stakeholders of municipal management entities and information policy of these entities as well as indicating key tools of this policy. Presenting the findings of the research on information needs of municipal sector stakeholders in the light of making decisions by society.

*Keywords:* knowledge; information; municipal sector

*JEL:* D83; D91; H75

## 1. Introduction

Data, information and knowledge are terms which are difficult to define due to their primary nature. It can be claimed that information is a process of data interpretation on the basis of a priori knowledge that one has acquired. Lange-

fors (1973) emphasised the subjective character of information, i.e. the fact that different people may draw different information from particular data. Information in an organization constitutes the basis for building the knowledge of all people involved in the process of its acquisition and use. It builds awareness of phenomena occurring in an organization and its environment. It enables adapting an organization to the changing reality and transforming this reality in order to operate efficiently<sup>1</sup>. On the other hand, knowledge is received from information by its integration with the existing knowledge.

According to Davenport & Prusak (1989, p. 2), ‘data is a set of discrete, objective facts about events’ and data itself has no purpose or relevance. Whereas information is ‘data that makes a difference’. Data may be transformed into information by adding value to it. According to Davenport & Prusak (1989, p. 2), it is as follows: ‘knowledge is a fluid mix of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information. It originates and is applied in the minds of knowers. In organizations, it often becomes embedded not only in documents or repositories but also in organizational routines, processes, practices, and norms’. To summarize:

- data represents facts;
- information is data included in a message, interpreted by a receiver and relevant to them. It should be interpreted;
- knowledge comes from information which is important for a receiver and has been verified in practice. Knowledge is used to make decisions.

Access to information affects the level of knowledge of its users and currently constitutes an important analytical and research issue. Information is one of key economic resources in all business entities, including municipal management entities where the empirical research was conducted in order to achieve research objectives<sup>2</sup>. Therefore, the purpose of the article is to: (1) define key terms included in the study, (2) present the role of information in a modern company on the example of municipal management entities in correlation with information needs of stakeholders from this sector (creating resources of knowledge used to make decisions). The research methods and techniques used in this study are primarily: methods of inductive and deductive reasoning, analysis and synthesis, critical analysis of national and foreign literature on the subject, comparative analysis, a questionnaire. The article consists of:

- a part concerning the characteristics of municipal management stakeholders and the information system of municipal management entities;

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<sup>1</sup> More in studies by: Beynon-Davis (1999, p. 16), Meyer (2005), Parker (2014, pp. 632-659).

<sup>2</sup> The objective of the study is to disseminate the findings of the empirical research conducted by the author as part of the diagnosis of the level of using accounting instruments by municipal management entities to measure and report the achievement of sustainable development objectives. The analytical and research study has not been presented to the scientific community so far. More in a monography by: Sadowska (2019, p. 356).



- a description of objectives, research sample and research methods;
- a presentation of information needs of municipal sector stakeholders in the light of empirical research — research findings;
- conclusions and discussion.

## 2. Municipal management stakeholders and the information system of municipal management entities: literature review

Municipal management implemented in accordance with the concept of sustainable development aims to balance collective consumption with public consumption models. In compliance with the requirements of sustainable development in municipal management as well as in the whole system of production and consumption, the '3 R's' rule should be observed (Bergier, 2010, p. 295):

- 'R-Reduce' — reduce and minimize the use of energy, water, resources, materials, packaging;
- 'R-Reuse' — reuse: energy (e.g. recuperators), water (e.g. closed water cycle), packaging;
- 'R-Recycle' — reintroduce back into the economy: materials and secondary raw materials (material and organic recycling), energy (thermal recycling).

Municipal management and stakeholders for who entities of this management conduct activities by providing services constitute the elements of socio-economic and environmental system and are mutually dependent. Stakeholders are municipal management entities, make these entities up and are main purpose of their existence. When applying the stakeholder theory to the level of municipal management, it is worth indicating that in order to classify key stakeholders in this field the knowledge about the following is necessary:

- their expectations,
- their readiness to cooperate with municipal management entities,
- potential conflicts of interest.

As scheme 1 shows, municipal management stakeholders may be divided into a few basic groups. The two most important groups of stakeholders are the local community connected with the natural environment, and owners/shareholders which are most often local authority bodies. However, it is worth remembering that the activities of municipal entities are also affected by other stakeholders, such as:

- social partners: politicians, local and governmental authorities, scientists, non-governmental organizations, public services, tourists, media;
- business partners: business organizations, investors, other sectors of economy, tourism organizations;
- employee circle: trade unions, pensioners, employee families.

Municipal management stakeholders expect access to information which should be generated by municipal management entities. The stakeholder theory claims that an important element of developing a relation between a business entity and stakeholders is informing them effectively of activities and achieve-

ments at all levels of conducted activities as stakeholders claim their right to decide on organization issues, make specific professional decisions and decisions connected with their private lives on the basis of the obtained information. Stakeholders take particular decisions based on information generated by the information system of municipal management entities. The information policy of municipal management entities involves above all:

- informing stakeholders of the role of municipal management, provided public utility services and activities compatible with the concept of sustainable development;
- building a positive image of municipal management entities, especially in terms of new ‘sensitive’ investments, such as building a sewage treatment plant, an incineration plant, etc.;
- efficient internal communication, including providing reliable information on the situation of an entity and ensuring that the policy implemented by the management is understood;
- external communication.

The basic tools of general information policy include: open days, educational trails, information published on the websites of municipal management entities. Moreover, municipal management entities also use the accounting system tools as information policy tools.

### 3. Objectives, description of research sample and research methods

The purpose of the article is to: (1) define key terms included in the study, (2) present the role of information in a modern company on the example of municipal management entities in correlation with information needs of stakeholders from this sector. This research paves the way for further research on analysing the information needs of municipal management stakeholders<sup>3</sup>. A questionnaire was preceded by the individual in-depth interview. Therefore, the data was obtained by using PAPI and IDI methods.

The research on public opinion, at least at the Polish level, is for exploratory purposes, so it concerns new research areas in the scope where so far there has been a gap in terms of empirical data. The conducted search of online literature and materials shows that so far in Poland there has not been any research concerning the information needs of municipal management stakeholders and satisfying them as well as analyses and assessments of using accounting instruments in municipal management entities. As Babbie (2013, pp. 107–108) indicates, exploratory studies have the following purposes:

- ‘to satisfy the researcher’s curiosity and desire for better understanding;
- to test the feasibility of undertaking a more extensive study;

<sup>3</sup> More on this subject in Andriof & Waddock (2002, p. 29), Freeman & Gilbert (1988, p. 7), Freeman (2010, p. 31), Johnson & Scholes (1993, p. 171), Wheeler & Sillanpää (1997, p. 5).

– to develop the methods to be employed in any subsequent study’.

Non-probability, two-stage sampling was applied: voluntary (in other words: convenience sampling) and snowball sampling. As Babbie (2013, pp. 107–108) claims, although this type of sampling is imperfect (the lack of the possibility of generalizing to a population), it is useful in exploratory and pilot studies and may be ‘a source of useful information’. The author emphasises that she is fully aware of the fact that research on this group is not representative — such research requires some time, is costly and very difficult to conduct. It would require to treat it as a separate main objective of a study which the author would like to consider doing in the future.

Therefore, conclusions and generalizations in this scope should be carefully formulated, and the author tries to do that. The presented findings constitute an initial view of the situation to be verified in more in-depth random research.

At the 1st (voluntary) stage, the proposal for the participation in the questionnaire was sent to residents of the Zachodniopomorskie, Lubuskie and Wielkopolskie Voivodeships who have a basic knowledge of administration (on the basis of databases of students of postgraduate studies in budgetary accounting, databases of extramural students); then, these people had to obtain for the research next 5 residents of the voivodeships (snowball sampling technique). Finally, between May and September 2018, 393 questionnaires were conducted with residents of the Zachodniopomorskie, Lubuskie and Wielkopolskie Voivodeships.

#### **4. Information needs of municipal sector stakeholders in the light of empirical research: research findings**

The vast majority of the residents participating in the research agreed with the statements that society needs information about the impact of municipal management on the natural environment (91.86%) and on the local community (94.91%), and that on the basis of this information society makes various decisions (on the basis of information about the impact of municipal management on the natural environment (75.83%) and on the local community (83.20%) respectively). The results are presented in table 1<sup>4</sup>.

According to 79.39% of the respondents, the lack of information about expenditure and costs planned by municipal community entities in the nearest future, for example purchasing new buses, building a sewage treatment plant or an incineration plant, may raise concerns in citizens in terms of increasing the price of public transport tickets or prices of waste disposal in the future (table 2).

All information mentioned in the questionnaire is important to residents, however, what is of the most significance is access to knowledge about the costs of activities connected with the tax policy of a municipality and income of the local community (it is important to 58.27% of respondents). Information

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<sup>4</sup> Described in more detail: Sadowska (2019).

about activities undertaken for local communities is almost equally important to the respondents (53.69%), what is presented in table 3.

The respondents claimed that the most significant information among this listed in the questionnaire about information needs in terms of environmental threats is about harmful emissions (67.68%) and the impact of emissions, sewage and waste on the local environment (57%). The results of empirical research are presented in table 4.

According to the data in table 5, the information the respondents find most important among information about social benefits provided by municipal management entities is about aid programmes enabling, for example, settling water, sewerage and utility bills (56.49%).

What the respondents find most important among information about information needs of society in terms of ecological activities of municipal management entities is reducing inconvenience caused to residents (64.12%) and pollution as well as improving quality. The results are presented in table 6.

According to the data in table 7, 43.26% of the respondents currently assess the activities of Zakład Wodociągów i Kanalizacji (Waterworks and Sewage System Company), Przedsiębiorstwo Usług Komunalnych (Municipal Service Company) and Przedsiębiorstwo Energetyki Ciepłej (Heat Distribution Enterprise) on the basis of information provided by them.

Nearly half of respondents (49.36%) find the listed information important, however, it is not always possible to take account of it when making decisions concerning life, work, a place of living or business activities as it is presented in table 8.

A vast majority of respondents (67.68%) think that the lack of access to current, up-to-date and reliable information about activities of municipal management entities, including social and environmental information, may result in making wrong decisions concerning their life, work, place of living or a business (table 9).

## 5. Conclusion

Knowledge comes from information which is important for a receiver and has been verified in practice. Knowledge is used to make financial and non-financial decisions. Access to information affects the level of knowledge of its users and enables forecasting operational and strategic activities. It increases the level of awareness of stakeholders, mainly the local community, as well as owners, shareholders and the representatives of local authority bodies. An essential element of building a relation between a company and stakeholders is informing them effectively of activities and achievements at all levels of conducted business activities. The empirical research findings enable formulating specific conclusions, such as:

1. Society gathers knowledge by demanding information concerning the impact of municipal management on the natural environment and the local

community environment. On the basis of such knowledge, social units make various decisions.

2. The lack of access to information may raise concerns of social units (citizens) about increasing prices of goods and municipal services in the future.
3. Access to knowledge about the costs of activities connected with the tax policy of a municipality and income of the local community is of great significance.
4. The most important information to satisfy information needs of society in terms of environmental threats is about harmful emissions and the impact of emissions, sewage and waste on the local environment.
5. Information about reducing inconvenience caused to residents and municipal pollution is of key importance.
6. In terms of having basic knowledge of the activities of municipal entities, the lack of access to current, up-to-date and reliable information about economic, social and environmental activities of municipal management entities may result in making wrong economic and non-economic decisions by social units.

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## Appendix

**Table 1.**  
**Opinions of residents participating in the research about the information needs of society in terms of the social and ecological impact of municipal management, and the way of making decisions, n=393**

Statement	I definitely agree		I agree		I don't agree		I completely disagree	
	percentage of answers	number of answers	percentage of answers	number of answers	percentage of answers	number of answers	percentage of answers	number of answers
society needs information how municipal management affects the natural environment	32.57	128	59.29	233	6.62	26	1.53	6
society needs information how municipal management affects the local community	35.11	138	59.80	235	4.33	17	0.76	3
society makes various decisions on the basis of information about the impact of municipal management on the natural environment	18.07	71	57.76	227	21.88	86	2.29	9
society makes various decisions on the basis of information about the impact of municipal management on the local environment they live in	24.68	97	58.52	230	15.01	59	1.78	7

Source: Own study on the basis of the online questionnaire with the residents.

**Table 2.**  
**Opinions of respondents: residents on the issue of information needs of society in terms of expenditure and costs in municipal management, n=393**

Statement	Number of answers	Percentage of answers
the lack of information about expenditure and costs planned by municipal community entities may rather raise concerns in citizens in terms of increasing the price of public transport tickets or prices of waste disposal in the future	312	79.39
the lack of information about expenditure and costs planned by municipal community entities may not rather raise concerns in citizens in terms of increasing the price of public transport tickets or prices of waste disposal in the future	81	20.61

Source: Own study on the basis of the online questionnaire with the residents.



**Table 3.**  
**Opinions of respondents: residents on the issue of information needs of society in terms of the social activities of municipal management, n=393**

Statement	Number of answers	Percentage of answers
I expect information about the number of planned 'green investments'	183	46.56
I expect information about activities for local communities (picnics, workshop for children, educational trails)	211	53.69
I expect information about the costs of activities which are directly connected with the tax policy of a municipality and income of the local community	229	58.27

Source: Own study on the basis of the online questionnaire with the residents.

**Table 4.**  
**Opinions of respondents: residents on the issue of information needs of society in terms of environmental threats, n=393**

Statement	Number of answers	Percentage of answers
I expect information about harmful emissions	266	67.68
I expect information about sewage and waste in my municipality	192	48.85
information about the impact of emissions, sewage and waste on the local environment	224	57.00
I expect information about processes (incineration in incineration plants, collection and treatment, disposal, recycling)	187	47.58
I expect information about expenditure and level of costs connected with these processes	113	29.26

Source: Own study on the basis of the online questionnaire with the residents.

**Table 5.**  
**Opinions of respondents: residents on the issue of information needs of society in terms of the social benefits of municipal management, n=393**

Statement	Number of answers	Percentage of answers
I expect information about harmful emissions	266	67.68
I expect information about sewage and waste in my municipality	192	48.85
Information about the impact of emissions, sewage and waste on the local environment	224	57.00
I expect information about processes (incineration in incineration plants, collection and treatment, disposal, recycling)	187	47.58
I expect information about expenditure and level of costs connected with these processes	113	29.26

Source: Own study on the basis of the online questionnaire with the residents.



**Table 6.**  
**Opinions of respondents: residents on the issue of information needs of society in terms of ecological activities, n=393**

Statement	Number of answers	Percentage of answers
I expect information about the restoration of biological balance in places where sewage sludge from a sewage treatment plant was stored or there was a dumping site	149	37.91
I expect information about reducing inconvenience caused to residents (odours from sewage treatment plants and sewerage or noise in places where there are pens for stray dogs)	252	64.12
I expect information connected with developing eco-friendly attitudes and a sense of conscious responsibility for the natural environment	131	33.33
I expect information about reducing pollution and improving quality (costs)	218	55.47
I expect information about CO <sub>2</sub> emissions	201	51.15

Source: Own study on the basis of the online questionnaire with the residents.

**Table 7.**  
**Opinions of respondents: residents on the issue of assessing municipal management entities (for example, Zakład Wodociągów i Kanalizacji, Przedsiębiorstwo Usług Komunalnych and Przedsiębiorstwo Energetyki Ciepłej), n=393**

Statement	Number of answers	Percentage of answers
yes, I assess the activities of the aforementioned entities on the basis of information they provide	170	43.26
no, I do not assess the activities of the aforementioned entities on the basis of information they provide	223	56.74

Source: Own study on the basis of the online questionnaire with the residents.

**Table 8.**  
**Opinions of respondents: residents on the issue of decisions made on the basis of available information, n=393**

Statement	Number of answers	Percentage of answers
yes, on the basis of available information I make decisions concerning my life, work, change of a place of living, setting up a business	89	22.65
no, on the basis of available information I do not make decisions concerning my life, work, change of a place of living, setting up a business	110	27.99
available information is important to me, but I cannot always take it into account when making decisions concerning my life, work, change of a place of living, setting up a business	194	49.36

Source: Own study on the basis of the online questionnaire with the residents.

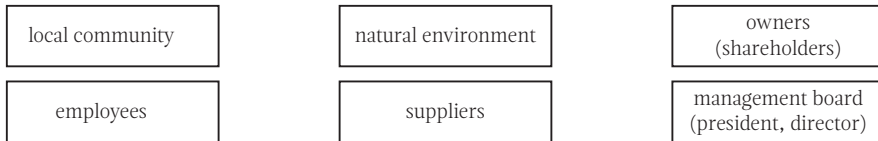


**Table 9.**  
**Opinions of respondents: residents on the consequences of the lack of access to information, n=393**

Statement	Number of answers	Percentage of answers
yes, due to the lack of access to current, up-to-date and reliable information about activities of municipal management entities, in the future I may make wrong decisions concerning my life, work, change of a place of living or setting up a business, and others	266	67.68
no, due to the lack of access to current, up-to-date and reliable information about activities of municipal management entities, in the future I may not make wrong decisions concerning my life, work, change of a place of living or setting up a business, and others	127	32.32
I have no opinion	0	0.00

Source: Own study on the basis of the online questionnaire with the residents.

**Scheme 1.**  
**General classification of municipal management stakeholders**



Source: Own preparation.