

## AN ENTERPRISE AS A PARTICIPANT OF THE GLOBAL INFORMATION SPACE

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### **Abstract:**

Contemporary economic reality is associated with the conception of globalization and the dynamics of changes. The emergence of a dynamic and global market is most closely linked to the development of information and communication technology. Of particular importance is the development of the Internet. Progress in this regard has led to the situation in which, in relation to the world of information, there are no limitations of time and space. "Informationally" one can be anywhere in the world at any time. This, in conjunction with the importance of information in management, allows to say that the effectiveness of functioning and the occupied competitive position depend on the effectiveness of management on the information plane (space). This is a "place" where one finds all the necessary information for running business. The purpose of the article is to identify and analyze the features of functioning and managing on the information level. The purpose is also to analyze the features of the plane itself from the enterprise's point of view.

*Key words: Information plane, competitive advantage, market dynamics*

## Introduction

In the life of a man and all the structures in which he participates, two functional planes can be separated. The first one is the physical plane. It is a visible part of life. It contains all the activities and actions, which course and effect is real. Hence, this dimension can be described as real, actual. According to the Polish Language Dictionary, the real is (Słownik): existing in reality, possible to make or implement, characterized by realism or common sense. For the purpose of this article, the authors assume that the real relates to: activities and actions which course and effects are visible (occur and exist in reality, are tangible) to their performer(s) and observer (s). The second one is the information plane in which human activities are represented by information. It is not visible in the traditional, physical sense - visible, noticeable, clear, obvious (Słownik). At the same time it is visible<sup>1</sup> in the sense of the actions and physical effects considered as the source and effect of information provided and already functioning in it.

What connects the two planes, is the use of information for daily and continual activities and actions. It should be noted, that the use of information is not only related to the acquisition of information - towards the physical plane but also to the provision of information - towards the information plane. This duality of use results from the principle of human functioning. It uses the information to which it has access, and at the same time, what it uses is the source of new information - the information loop. Every human action is the result and at the same time the source of information.

The physical sphere of human functioning is visible in the physical sense - the observer, and the information sense - the receiver of the information. The informational sphere of human functioning is visible only to individuals who are able to identify and acquire specific information.

The enterprise is a part of the market made by the people involved in the implementation of the common purpose (s). It is the satisfaction of the needs of other participants and, consequently, the achievement of certain benefits. Meeting the needs in material terms - product and/or service, it is functioning in the real space. At the same time everything that is done is the result of information obtained from the internal and external environment and the source of the information provided there. In fact, it is obtained<sup>2</sup> from any place that has information useful to accomplish the goals. The recipients of information are all individuals interested in acquiring it and those, whose information spaces penetrate the enterprise space - falls within the internal environment and the close external one. The competitive position of the company depends on the ability to function in the information space<sup>3</sup>.

The aim of the article is to analyze the enterprise functioning on the information plane (space). The aim is also to raise awareness of the importance of this functioning in the context of gaining a competitive position. The requirements for functioning at the information plane in the context of achieving competitive advantage and the features associated with this plane will also be analyzed<sup>4</sup>.

## The enterprise in a global and dynamic reality

The enterprise can be defined as "the unit (entity) conducting business activity, which aims to meet the needs of other entities of society (individuals and/or institutions) by the production of products and/or services, where the activity is motivated by the desire to obtain material benefits and managed independently at the risk of the owner/owners" (Sikora, Uziębło, 2013, p. 36). The indicated aspiration of satisfying the needs of others, including customers, partners is the most important success factor for the enterprise (Kwiecień, Żak, 2013, pp. 263-264). It is achieved through the work of all employees in the manufacturing and/or service enterprise, but also by all those intermediaries who are responsible for the physical acquisition of the product/service by the end-customer.

Satisfying customer needs and meeting customer expectations is the place of the competitive struggle. The winner is the one, who as first, and/or to a greater extent is able to guarantee customer satisfaction (Czarniewski, 2016, p. 36). Taking into account the dynamics of today's market, gaining competitive advantage is related to efficiency in terms of: identifying needs and expectations, introducing change and innovation. These activities must at the same time not so much refer to the

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<sup>1</sup> Topicality of the features listed previously.

<sup>2</sup> And basically they should be.

<sup>3</sup> Acquiring and, to the greatest extent possible, conscious delivery.

<sup>4</sup> The authors of this publication treat the notion of space and the information plane equally - this is a "place" where all the information necessary for functioning of every human being and the structures created by him exist.

present time, but go ahead. In the dynamic market, the key to success is time. As a result of the development of information technology, and above all the Internet, the world considered as a market in which the boundaries determine the ability to reach information, has shrunk to become "local". At every moment of life, information is provided to the information space in an amount that is difficult to estimate. With the possibility of its acquisition, analysis and use, primarily time counts to the identification of these important for its application. The information that counts is especially the one, related to the management in a strategic dimension. Nowadays, information and time are closely linked. One should agree with S. Klein according to whom the time is information - the amount of information (Klein, 2009, p. 133).

The success of the enterprise and occupied competitive position is not solely determined by the skills of identifying, acquiring, analyzing and the practical use of the information located outside its borders (Toszevska-Czerniej, 2015, p. 182). Equally important is the information generated within the organization. The first are directly related to the ability to exploit opportunities and avoid threats, considered in the context of their rapid identification. Information from the inside of the enterprise, in turn, is related to the ability to the real use of opportunities and to avoid risks - in the context of the ability to identify and implement the required actions. Both areas are interrelated and complementary. In management practice, especially in dynamic conditions, all sources that can provide information influencing the effectiveness of functioning are important (Podstawy, 2012, p. 91).

Information from the inside of the enterprise allows to gain knowledge about: abilities, predispositions, skills, knowledge, attitude, commitment, potential, gaps, expectations of employees and the potential of resources. These are the factors that determine the business efficiency and its potential on the market. They refer to each sphere of functioning - from searching and obtaining information to the practical effect of their use shared with partners and customers.

Each participant in the information space<sup>5</sup> is, inside of it, represented by information. It consists of those, the source of which is himself and those posed by other participants of that space. The limitation is basically only the desire to deliver and possession of information. This information can be characterized on the basis of commonly known features (Deczyjne, 2012, pp. 635-637): timeliness, fairness, truth, usefulness, objectivity, relevance, accuracy, consistency. This information always influences customers' purchasing decisions and the decisions of current and potential partners. In view of the above and taking into account the fact that it does not have to be generally positive and motivating to work, it is necessary to monitor it constantly. If necessary, it has to be accompanied by strengthening, correcting, explaining actions. It is also necessary to identify units characterized by the abilities to spread and the impact strength - in the information space (Lis, Bajdor, Ptak, 2016, p. 352). The main goal is to obtain, in the information space, the effect of the enterprise representation by a controlled and positive information set.

According to R. Borowiecki, the enterprise is "defined as an institution of the economic system, in which business activity was organized, regardless of the scale, object and type of activity, the organizational and legal form in which the activity is carried out and the form of ownership, whereby this activity is motivated by the desire to obtain financial benefits and is carried out for the account and risk of the owner (s). Enterprises are part of the economic and political system within which they operate, they occur in different forms and are subject to transformations resulting from the dynamic economic conditions, referred to by the state, structure and variability of the environment" (Borowiecki, 2011, pp. 6-7). In the presented definition a key element of the enterprise is a man - here, the owner (owners) bearing business risk. The indicated fact of participation in the economic and political system and the variability resulting from the dynamic economic conditions can be referred to functioning at the information plane. This is where the real life in the mentioned systems is (additionally in the social system) characterized by the dynamism. Dynamism as a feature is associated primarily with the information, its flow. The reality of functioning is as dynamic as information flows are dynamic. Time, which it is the interpretation of dynamism, is the amount of information.

In the context of functioning at the information plane, the features of the enterprise indicated by R. Borowiecki are also important. The author states, inter alia, that the enterprise: is established to carry out long-term and not short-term tasks, is meeting the needs of others, is including the institutions and clients, is fully respecting their subservient role - it serves the environment, has the knowledge and reputation of the company, operates on the basis of the exchange of products and/or services - buy-sell, has decision-making autonomy, which is accompanied by the risk, is the earning entity. When analyzing the indicated characteristics it should be stated that the enterprise:

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<sup>5</sup> Including every business. Regardless of form, structure, legal personality - the interpretation is a man as a main element, the creator and the participant.

- has to lead continuous and active activity in the information space aimed at achieving strategic aims - long-term,
- has to acquire information from the external environment in order to identify its needs and optimize their fulfillment. This is due to the role played - the servant and the purpose - earning,
- has to acquire and provide information to fulfill the principle of buy-sell,
- has to acquire and provide information to increase knowledge: own (achievement of goals), of the environment (interest represented in earnings and activity in the area of buy- sale);
- has to acquire and provide information to shape the right reputation,
- has to acquire information to reduce the risk, while reducing the time from occurrence to acquisition and use of information.

Because the enterprise is a "human" structure, the ability to achieve goals and success is determined by the ability of functioning in the information space, which in the physical space is represented by specific actions - reality, physicality. Efficiency of functioning in the physical space is a direct derivative of efficiency of functioning in the information space. The dynamics of functioning in the physical space results directly from the dynamics of functioning in the information space. It should be noted that the dynamics of the market is the result of the development of information and communication technology, and above all the Internet.

On a dynamic market, due to the limited capacities and capabilities of each enterprise, cooperation is of particular importance. Presented features of the enterprise, require seeking and establishing cooperation with those market participants, who give the opportunity to implement short-term, but above all, long-term goals(Woźniak-Sobczak, 2015, pp. 58-59). The resulting structures are based on the information. They are the result of management on the information plane including: identification (goals, units), establishing, conducting (shaping, matching, modifying) cooperation. Active functioning and management on the information plane in relation to cooperation positively affects on trust. Being a very important factor of cooperation it became, as noted by A. Szablewski, an economic value(Szablewski, 2009, p. 447).

## **Information space as a place of the enterprise functioning**

According to research results in 2013, the share of sales of goods on the electronic plane was at 12.1% for sales in general. In relation to the sale of services it was 63%(Global flows, 2014). In 2015, the number of people declaring to be active Internet users, has exceeded 3 billion. At the same time, more than 2 billion people had accounts in social media, more than 3.5 billion people used mobile devices(Data from, 2017). It is expected that by 2020 the level of significance of sales made in the traditional way will be limited to 14%. At the same time, the importance of sales at the electronic level will reach 21%. This will happen mainly due to the gradual transition to the use of electronic information sources – up to 65%. These sources will be all places, where it is possible to find the information necessary for decision making in the buying process(Dragt, 2012).

The confirmation of these forecasts are the results of the survey, according to which customers making purchasing decisions in 83% trust the information obtained from well known persons. Regarding the rapidly growing number of social media users and the gradual transition from real contacts (physical) to those, made by electronic means, it should be assumed that this information will be transmitted and obtained this way. The next place in the survey was taken by trust in other customers opinion - 66%.

It should be noted, that the consultative group includes customers with their own experience in working with the supplier, but also people, who come into possession of certain information and being active users of the Internet, have also become its natural providers. 70% of customers have declared trust in information posted by enterprises on their own websites. Interestingly, 56% of customers trust the information they have received as a result of receiving a letter from the vendor electronically(Global, 2015, p. 4).

Analyzing the situation in Poland - in relation to the sources of information used in the purchase process, it can be concluded, that:

- 42% of clients – take into account their own experiences,
- 12% - take into account information obtained during conversations with others,
- 12% - take into account information obtained from advertising.

One can notice a relatively small share of ads as sources of information, with a much greater share of own experiences and conversations with others. The combination of these items is purposeful due to the fact, that own experiences are closely related to sharing information. Because in times of transition from physical to virtual contact, the concept of a well-known person changes its traditional meaning, it should be mentioned again, that 83% of people trust the information obtained from their friends. It

should be assumed, that this refers in large part to the dimension of virtual acquaintances and interactions.

This is confirmed by the fact that 55% of customers in Poland, their knowledge about the subject of interest acquires on-line. Among sources of information obtained online, it was found that: 26% of customers in Poland base on business websites, 20% - sellers websites, 56% of various search engines, 8% of discussion groups, forums and blogs, 17% of comparison sites, 3% - on-line magazines, what is interesting only 5% indicated social media, 3% companies profiles in social media(consumer, 2017).

Analyzing involvement of Polish enterprises in functioning in the information space, it can be said, that almost 100% of large, 98.4% of medium and 91.4% of small businesses have access to the Internet. At the same time, 91.2% of large, 83.9% of medium and 61.3% of small businesses have their own website. 60.3% of all Polish companies use their website to present catalogs of products and services. 11.8% gives this way the ability to order products according to own specifications. 8.7% gives the ability to check the status of the order online. 13% gives ordering or booking online.

Analyzing the ordering and receiving process by electronic means, it was stated that:

- make orders – 59% of large, 28,9% of medium and 17,8% of small enterprises,
- receive orders – 34,6% of large, 18,6% of medium and 9,8% of small enterprises.

The study found, that in its activity, social media uses 49.4% of large, 31.1% of medium and 19.7% of small enterprises. It should be noted that in this respect, in 2015 there was an increase in comparison to the year 2014(Społeczeństwo, 2015).

## Conclusion

Human functioning and all structures created and co-created by him, is closely related to the information. Man constantly acquires, analyzes and uses information. This sphere is widely known and analyzed. On the other hand man during his daily functioning continuously generates information. It is used by other participants of life to make specific decisions and actions. Thus, the life of man and structures in which he participates and to which undoubtedly belong enterprises, is an information-decision-executive loop. Information is used for activities that generate further information.

Information generated by the company is directly dependent on both, itself - as a system, its component subsystems, as well as workers regardless of their position in the organizational structure. This information influences, on the one hand, the performance of the enterprise and, on the other hand, its effectiveness as the market participant. Lots of generated information causes a specific result that returns to the enterprise in the form of information. That in turn, as incoming information, affect the business. What is important, information generated to produce the effect does not need to be written on any medium. It includes information generated in a conscious and unconscious way. The condition of the impact is the flow towards other participants of the information space. This, in turn, requires co-participation in activities in the physical space, or providing information to the information space - the possibility of their acquisition by other participants. In this process, the important role is played by intermediaries of "information".

Taking into account the possibility of false information in the process of their flow with the involvement of intermediaries, it is necessary to take actions aimed at identifying and introducing actions aimed at achieving the intended purpose. Information beyond control affects the enterprise in the way that is difficult to predict. What is worse, its effect can only be seen after the occurrence of the real response. This, in turn, is a threat to the ability of functioning - the threat of failure. All this makes the enterprise, struggling for the competitive position, actively manage information in the information space.

## References

1. Borowiecki R. (2011). Przedsiębiorstwo w obliczu wyzwań współczesnej gospodarki, [w:] Nierówności społeczne a wzrost gospodarczy, Uwarunkowania sprawnego działania w przedsiębiorstwie i regionie, Zeszyt nr 20, Uniwersytet Rzeszowski, Rzeszów
2. Czarniewski S. (2016). Small and Medium-Sized Enterprises in the Context of Innovation and Entrepreneurship in the Economy, Polish Journal of Management Studies, Vol. 13, No 1
3. Dane z raportu: „Digital, social & mobile In 2015” udostępnionego na stronie: <http://smmeasure.eu/liczby-polskiego-internetu-2015>
4. Decyzyjne systemy zarządzania, (2012). pod red. J. Kisielnicki, J. Turyna, Difin, Warszawa
5. Dragt C. (2012). Universal Commerce: nowa jakość spersonalizowanych zakupów online dla współczesnych konsumentów, First Data Corporation

6. Global flows In a digital age: How trade, finance, people, and data connect the world economy, McKinsey Global Institute, April 2014.
7. Global trust in advertising, Winning strategies for an evolving media landscape, Nielsen, September 2015
8. Grudzień Ł. (2012). Koncepcja oceny jakości informacji o procesach w systemach zarządzania, [w:] Innowacje w zarządzaniu i inżynierii produkcji, pod red. R. Knosala, Polskie Towarzystwo Zarządzania Produkcją, Gliwice
9. Klein S., Czas. Przewodnik użytkownika, Wydawnictwo W.A.B., Warszawa 2009
10. Kwiecień A., Żak K. (2013). Relacja z klientami w tworzeniu przewagi konkurencyjnej przedsiębiorstwa, Zarządzanie i Finanse, t. 11 nr 4/3
11. Lis T., Bajdor P., Ptak A., Budzik-Nowodzińska I. (2016). Information Management in the Company's Information Space, The International Academic Forum (IAFOR), The Asian Conference on Sustainability, Energy & the Environment 2016, Kobe, Japan, 09 -12 June
12. Podstawy zarządzania informacją, (2012). pod red. J. Czekaj, Wydawnictwo Uniwersytetu Ekonomicznego w Krakowie, Kraków
13. Sikora J., Uziębło A. (2013). Innowacja w przedsiębiorstwie – próba zdefiniowania, Zarządzanie i Finanse, t. 11 nr 2/2
14. Słownik Języka Polskiego PWN, <http://sjp.pwn.pl/szukaj/widoczny.html>
15. Społeczeństwo informacyjne w Polsce w 2015 r., Główny Urząd Statystyczny, Warszawa 2015.
16. Sudoł S. (2006). Przedsiębiorstwo. Podstawy nauki o przedsiębiorstwie. Zarządzanie przedsiębiorstwem, PWE, Warszawa
17. Szablewski A. (2009). Migracja kapitału w globalnej gospodarce, Difin, Warszawa
18. Toszewska-Czerniej W. (2015). Knowledge Management Model, Polish Journal of Management Studies, Vol. 12, No 2
19. Woźniak-Sobczak B. (2015). Symbioza paradygmatów zarządzania przedsiębiorstwem w otoczeniu sieciowym, Studia Ekonomiczne. Zeszyty Naukowe Uniwersytetu Ekonomicznego w Katowicach nr 222
20. [www.consumerbarometer.com](http://www.consumerbarometer.com)