

## THE COMMUNICATION OF ECONOMIC ORGANIZATIONS IN SITUATION OF ASYMMETRIC INFORMATION

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**Abstract:** *This study examines the definition of asymmetric information and introduces its importance. Furthermore, there is an examination of how the inequality can be detected in the operation of economic organizations and various markets is presented, as well as its possible effects on an economic operator. An explanation is provided for the disturbances that may emerge in the communication of companies due to the presence of asymmetric information and the possibilities to alleviate these difficulties.*

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### Introduction

Experts nowadays believe that information has become the most important resource over the course of history, and its importance and value continue to increase with time. Communication that ensures information exchange is likewise considered one of the most important success factors. The importance of the quality of communication processes in businesses can be compared to the conformity of core business processes.

The value of information is mainly defined by how relevant and complete it is, with regards to the communication occurring between the providing and receiving parties.

The topic of the completeness of information raises very interesting questions about rationality: is this a thing that exists?

For instance, the information being examined may be incomplete, or obsolete. Another issue that can be brought up is if collecting the proper information is costly and if, from the perspective of the information requester, we are at the point where the marginal profit is equal to the marginal cost, thus further searching is stopped. Another obstacle could be if the recipient is only capable of taking in a limited amount of information, or if they misunderstand the information provided.

In these cases, we end up with a situation, where the emergence of asymmetric information can be identified during communication: one of the participants in the transaction possesses data/facts/knowledge, which the other party does not. This may result in a loss for the operator with incomplete information and in extreme cases, may result in the restructuring of market conditions.

### Interpretation of information and communication

*The elements, process, limits of information exchange (communication)*

As Móricz (1999) writes communication is the root of every disclosure. And the obligatory participants of the communication process are the sender, receiver, and of course the channel and enables the transfer of the message. Communication may only exist, if the receiver has comprehended and understood the meaning of the message and if they react to it in some manner.

The formula for information reception is as follows (Móricz, 1999):

$$I_1 = I - (V_u + V_m + V_b), \text{ where}$$

$I_1$  is the information received

$I$  is the original information

$V_u$  is the noise, loss of information that occurs on the sender side (e.g. badly worded message)

$V_m$  is the loss that occurs due to the limits of the transmission channel (e.g. misprint)

$V_b$  is the loss that occurs on the receiver side, due to disturbance (e.g. inattention, misinterpreted message due to lack of knowledge).

Noise is a natural phenomenon in communication, the quantity of which has a crucial effect on the success (efficiency) of communication.

One of the most important tasks of communication management is to create the corporate communication system in a way to minimize the losses from these various communication events.

This occurs especially in communication processes involving multiple actors, where the message distorts to such an extent where, by the time of reaching the last actor, the meaning of the original message may just change to its opposite (classic examples to this are the Radio Yerevan jokes, which can unfortunately still occur in real life in a corporate environment, due to a badly organized communication system).

One of the guarantees for noise reduction is finding the appropriate channel for different kinds of information. During planning of communication processes, it is also important to examine the topic of whether the utilization of these channels could be bypassed using alternative channels, and as to what extent could they substitute the solution that was originally planned to transfer concrete information. Furthermore, whether the solutions, that differ from the originally planned process, could cause any losses for the company, and if yes, how much.

#### *Standardization of corporate communication*

“Corporate communication is every type of communicative activity within an entity, that is performed by members of the organization and contributes to the definition and completion of tasks that generate goods”. (Borgulya – Somogyvári, 2011)

The following table summarizes the classification of corporate communication.

**Table 1: Standardization of corporate communication**

Aspect	Type, sphere
Platform	internal
	external
Direction	vertical
	horizontal
	diagonal
Sender – recipient alternation	unidirectional
	bidirectional
Regulation	formal
	informal
Information management	centralized
	decentralized
	decentralized- integrated
Spheres	financial interest groups: sphere of finance
	market interest groups: market sphere

Aspect	Type, sphere
	non-market interest sphere
	sphere of colleagues

Source: *BorgulyaVető, 2010*

The external (outbound) communication between the company and its environment assist with the integration of the company into the social environment, while internal communication enables the organization, control, coordination, inspection, evaluation of work, as well as secure resources, all for the purpose of a common goal within the company. Furthermore, internal communication also serves to facilitate the operation of the company as a social phenomenon. It broadcasts values and norms, plays a fundamental role in developing corporate culture, power structures, organizational roles and working conditions, and also takes part in the development and resolution of conflicts.

Message transfer between the levels of company hierarchy can go downward, upward or diagonally. Downward communication mainly serves to broadcast organizational goals, hand out operational instructions and explanations, impart procedures and rules, provide feedback and communicate any other educational messages. Concurrently, during upward communication, information travels from lower to higher levels. In this case, problems, developmental proposals and reports are transmitted, along with conflict situations being unraveled. The platform of horizontal communication is generally the operative level of the company and usually facilitates the coordination of daily tasks, as well as problem solving. (Dobák – Antal, 2010)

The difference between unidirectional and bidirectional communication is mainly about whether there's interaction between sender and recipient, as well as the timeliness of it. If the recipient does not, or only provides a response to the message with a significant difference in time (e.g. public speeches, instructions disseminated in writing, then the communication is unidirectional, while if the messages flow back and forth (e.g. conferences, staff meetings), then it is bidirectional.

The company creates its formal information channels in accordance with its organizational structure, which results in a strong connection with the chain of information, that is usually called the "chain of command". Compliance with this is heavily dependent on culture, as on some places this principle is followed rigidly or loosely. However, during formal provision of information, the use of informal communication channels, created via a network of friends and interests, often seem like more efficient and faster solutions.

Communication may be performed centrally, in which the owner of the company is in possession of all information. This solution is only sustainable up to a certain company size, as after a while the owner cannot hope to manage all the information. At this point, the communication tasks are distributed, and the managers of different company functions will be responsible for the communication within their areas. Thus, decentralization is established, which may lead to disruptions due to a lack of coordination. A solution to this could be integrated corporate communications.

Other classification aspects may also include separation via sphere, as corporate communication may be financial, market or other non-market (performed together with the public), as well as an activity performed with colleagues.

## **The emergence of asymmetric information in literature**

### *The theory of limited rationality*

As previously mentioned, the issues with research into the completeness of information and the existence of rationality propose very similar questions, therefore I find it justifiable to mention what is written regarding the function of the "homo oeconomicus", the

rational man in neoclassical economic sciences, and the “true” human function, that operates with limited rationality.

According to the neoclassical theory, the rational man (consumer) is fully informed and is therefore in possession of every bit of knowledge that is relevant to the decision. Its preference system is predictable, stable and consistent, supported in the background by the constant need to validate its own interests. Every decision made is directed towards maximizing the attainable yields and its decisions are completely independent from expectations.

Upon researching the processing of information in man, Herbert Simon came to the discovery, that the opportunities, time and capacity of the cognitive person are still limited. However, limitless number of criteria may be assigned to the limitless amount of information pertaining to the decision. Consideration of all this is not possible in within the limited human information processing system previously mentioned, or rather, it can only be realized by omitting the rational evaluating/processing system.

The following quote keenly encapsulates the theory of Simon, regarding the man with limited rationality.

“The man with limited rationality: Humans is guided by emotions in their decisions, alternatives are examined to a satisfactory level. After the decision made on an emotional (irrational) basis, they will place it within a framework of rationality. Therefore, the decision is not rational, but rationalized.” (Komor –Mihály, 2011)

#### *The emergence of asymmetric information in economic theory*

Mirrlees, who received a Nobel prize together with Vickrey in 1996, for contributions to the economic theory of motivation through asymmetric information, mainly dealt with the issues of optimal taxation throughout his work, and many definitions and methods of analysis within the topic are associated with him.

Mirrlees defined the essence of the debate on optimal taxation using mathematical methods. According to this, the state, as an organization devising social and economic solutions, attempts to develop a tax system, where the maximums of the market balance and social benefit functions overlap each other. The model assumes the existence of information asymmetry, defines tax in relation to income, considers employment availability to be flexible, and regards the prosperity of people as equal, rather than their income. The theory supposes two cases of asymmetry, private information and moral risk (see: principal-agent problem)

Rothschild and collaborator Stiglitz were primarily concerned with insurance concerns in the event of asymmetric information. The initial hypothesis was that the insurance company cannot recognize whether the insured person is low or high in risk, therefore the low risk people must undertake the same excess, which discourages high risk people from reporting themselves as low risk. (Rothschild – Stiglitz, 1976)

Like the issue of insurances, the issue of asymmetric information also comes up regarding pension plans (Simonovits, 2016). In this case, the definition of life expectancy is not obvious: while the person knows their own life expectancy (health status), the government obviously cannot know it on the level of the individual. At the same time, the monthly annuity set depending on the retirement age and life expectancy. According to the proposed solution, in order to eliminate information asymmetry, the contracts offered should provide no incentive for those with longer lives to pick contracts designed for those with shorter lives (and vice versa).

Akerlof and Shiller, in their 2009 book ‘Animal Spirits: How Human Psychology Drives the Economy, and Why It Matters for Global Capitalism’, question the mainline economic theories, accepted to this day, which posit that the decisions of people make, are based on a rational point of view, taking every available information into account and completely shutting out all emotions. According to the pair of authors, irrational behavior is

typical of humans in both the booming and declining periods of the economy. The former is characterized by excessive trust, while the later by excessive skepticism. In their opinion, a possible method of climbing out of the crisis is exerting a gentle, leading control and influence over the “animal spirits”, meaning human psychology – like trust, fear, corruption, malice, integrity – in the form of state involvement.

Another book by Akerlof and Shiller, *Phishing for Fools*, deals entirely with the examination of the mechanic during which the economic and social actors become the sufferers and users of deception and manipulation in everyday life. According to them, two types of “fools” exist: the psychological and the information fool. Psychological fools are people whose emotions have triumphed over the rule of logic, or who perceive the world incorrectly due to cognitive distortions (optical illusion of thoughts). Information fools are people who act based on information used to deliberately mislead them (see: the case of Enron stockholders).

Akerlof elaborates in another analysis, that the poor-quality goods (“wrecks”) can ruin the markets of good quality products, due to the fact that the customers are unaware (or possess only partial information) of the quality of the product/service they wish to purchase. Therefore, when they make their decision, they will be unable to see the difference between a good and bad quality product, and the good quality, for which customers would likely pay more on the market, will not be able to exert its market influencing effect. As a result of decisions made time and time again with the circumstances above, the good and bad quality products will sell for the same price on the market, which will ultimately result in the higher quality product getting displaced from the market. *Contra selection* will occur, meaning that the bad quality product will displace the good quality from the market. (Hirshleifer – Glazer, 2009)

Stiglitz and other prominent economists believe that the self-regulation of the market does not work properly, in part because market operators possess market information at unequal rates and this inequality cannot be decreased. According to Kahnemann, however, this is compounded by the fact that the behavior and decisions of market operators are not rational, they are influenced by numerous biases, distortions and heuristics. Stiglitz simplified all of this by saying: “the reason that the invisible hand seems invisible is that it is not there”.

In the absence of the invisible hand to regulate market conditions, others must take up regulating, and with regards to macro processes – as said by others, including Stiglitz in the economics of inequality, or Piketty examining the function of capital in the 21st century – either nations or supranational organizations must take up the mantle.

The market dominance of companies may also stem from the possibility, that customers are not aware of the prices and quality. If customers only possess a limited amount of information, then a seller may obviously obtain additional revenue through a simple increase in price, as customers do not have any basis for comparison and the price used will be higher than the total informed competitor prices ( $p^c$ ). It follows, that if there are many well-informed consumers on the market, it would not be worth to raise the price above  $p^c$  for any company, however, if the number of well-informed customers is relatively small, the company may raise prices without needing to lose a lot of customers. All of this leads to the realization, that informing the customers leads to a decrease in prices. On the most well-known model to illustrate the above is the tourist trap model, which means that tourists must account for the cost of searching as well as the price of the product, while the purchases of the many, well-informed locals, with zero search costs, can have a price decreasing effect across the whole market, all the way to  $p^c$  levels (Carlton – Perloff, 2003)

### **The forms of asymmetric information in the operation of enterprises**

The shareholders (owners) usually do not take part in the daily business of companies. Most of their decision-making powers are handed over to managers, who are capable of uniformly representing the interest of the sometimes sizable ownership, however,

this also presents a problem in which the ownership and management are separated from each other, as the owner stays clear of the majority of business decisions, while the managers are not owners of the company. As there is no alignment of interests between owners and managers (e.g. maximize profit or revenue?), this solution may result in friction. This issue is often called the agency dilemma, or principal-agent problem.

Based on experiences, the shareholders (owners) can make the company operate according to their interests. This requires enough monitoring solutions, as well as management payment system, designed in accordance with owner interests. (Andor, 2018)

In their January 2018 paper, *Clarity Begins at Home: Internal Information Asymmetry and External Communication Quality*, the authors revealed, that internal information asymmetry most likely causes financial losses for companies, due to things such as incorrect forecasts or accounting inaccuracies, as well as due to external communication issues of the company.

The phenomenon can be detected especially in large conglomerates, in which internal information is divided across many organizational levels and divisions. The bigger the difference is between how informed the various levels (such as top managers and division leaders) are, the greater the possible problem it could cause, too.

There can be many reasons for the emergence of information asymmetry between leaders acting on different levels. Such as the availability of properly processed and organized business information for top managers, regarding all units under their control. However, the division leaders may possess information of such nature, that their transfer is made impossible due to the strictly binding business processes. The aspects of self-assertion within the organization may also prevent managers on lower levels from providing comprehensive information to top management. In general, it can be said that while top managers have more information regarding the corporate-level plans of the company, the unit managers possess established information regarding investment opportunities.

Another paper (*The Effect of Board Independence on Information Asymmetry*) examines the correlation between the independence of the upper management - for which one of the most important tasks is the protection of investor interests - and the information asymmetry that emerges among the shareholders.

It has been confirmed, that the growing independence of the members of the top management leads to a decrease in the information asymmetry between shareholders and vice versa, furthermore, the more frequently broadcast business reports and even more so, greater coverage regarding the analysis of business results both lead to the decrease of information asymmetry.

### **Possibilities to decrease the disturbances (losses) due to asymmetric information in the operation of companies**

Complete (total) awareness is obviously not possible, but as market and business actors, we must make efforts towards this, so we can exercise our interests in the most efficient manner possible. (Carlton – Perloff, 2003)

One of the most efficient, although most radical method of decreasing information asymmetry is to rethink the business processes. This solution is also a method (Seidmann – Sundarajan, 1997) that can fix the asymmetry of task distribution, which can also be linked to information asymmetry. However, it is also worth examining, whether there are any practical opportunities to manage the growing asymmetry, one that would cause less of a shock.

Based on the treatment methods, suggested by the literature, for problems arising from asymmetric information between market operators, let us link the cases to communication situations within the company, as follows.

1. Market situation: A possible method of avoiding information inequality on the market, is to demand sellers to reveal certain information. This would most likely pertain to the price and quality.

Corporate communication situation: In corporate communication, this can be enforced if the receiving party submits predefined expectations towards the sending party, thereby providing a framework for communication, minimizing its level of freedom.

2. Market situation: By providing a guaranty or warranty, the sellers provide a reliable way of transmitting the information to their customers, that their products are of good quality.

Corporate communication situation: In business operations, incentivizing the use of written instead of oral information, particularly information documented (by its nature) in the corporate information systems can provide a similar guarantee regarding the reliability and completeness of the information, for all operators working within the organization.

3. Market situation: Product liability laws provide additional assurances to customers, regarding the fact that the sellers cannot overlook their specific responsibilities.

Corporate communication situation: The upper management requirement system used in companies must be extended to the requirements for information completeness and information transmission processes, and the effectiveness of these must be verified.

4. Market situation: A good reputation may provide additional assurances when judging the quality of a product offered, since a business that expects its customers to return will strive to market good quality products.

Corporate communication situation: Adding the evaluation of communication performance to the evaluation criteria of employees is recommended. This way, we can indirectly contribute to the development of communication quality within the company.

5. Market situation: An independent inspection by external consultants provides objective results, regarding the quality of the product.

Corporate communication situation: The completeness (validity) of information received during operation may be verified, by asking another colleague about the same thing, one whose interests differ from the original sender, but are still related to the matter in some way.

6. Market situation: Standards provide a metric or scale to evaluate the quality of a certain product. While the certification is a report or statement of fact, that the product fulfills the quality required by the standard.

Corporate communication situation: The use of a system that evaluates (validates) the quality (information completeness) of information, communication templates and quality of solutions may assist with determining the standard of communication within the organization - from a business viewpoint - thereby assisting with objective decision-making, that is based on facts.

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