

INFORMATION ASYMMETRY THEORY IN CORPORATE GOVERNANCE SYSTEMS

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The evolution of corporate ownership structure, in particular the resolution of asymmetric information among stockholders, managers and creditors, requires very complex research. This paper aims to investigate how asymmetric information determines stakeholders to behave and how financial decision bears upon the performance of the organization.

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1. Introduction

Modern theories converge on the idea that the objective pursued by stakeholders is to maximize corporate value. In 2004 the OECD issued a document, *The OECD Principles of Corporate Governance*, that underlines that corporations need to be run, primordial, in the interest of shareholders (OECD 1999, 2004). This means that the old concerns in the field, as to maximize profit in terms of cost of production, have been abandoned and now the emphasis is on this new paradigm of maximizing corporate value. But this aim is achieved when trends of the corporate value are increasing, since the value of shares plenary comprises the performance of companies. Hence shareholders choosing investments that generates a high return will tend to force corporations to seek a high return.

But in the corporate governance systems, the company is seen as a set of expectations that each stakeholder establish in their relationship with the company. This is like a sort of polycentric vision of the corporate governance systems, having in the center the company around which stakeholders attempt to govern.

Regardless of the theories underlying corporate governance systems, there is a system which generates flows between the company and stackholders that regardless of their nature (informational, financial, material, etc..) has a number of features formed on the basis of apparently conflicting interests that exists between the company and its stackholders.

When referring to streams caused by company-shareholder relationship (Jensen, Merckling 1976) it is not surprising that shareholders will seek to identify forms (dividend or earnings differentials in the price of the shares) to recover the fastest way possible the capital they have invested. In turn the company will try during it's development periods to convince shareholders to let at its disposal financial resources that could be distributed as dividends to avoid the possible risk of de-capitalization of the company. Yet this conflict of interests between the company and its shareholders may affect in a long-term the companies performance. Actually identifying this

conflict of interest and resolving it through a specific management approach can lead to long term sustainability of corporate performance.

Interesting are also the flows caused by the relationship between the company and its suppliers, respectively its customers. Its a category of flows formed upstream the company, between the company and its suppliers in which the society acts as the client and it legitimateley aims to obtain raw materials at the best price and the best quality. The other party, the supplier, is convinced that when the transaction took place he has obtained the best price. Conflicting interests of companies and suppliers are more than obvious. While the price is "high and low" because the supplier is confident that the price he gets is a price that meets his interests (meaning good) while the company is confident that the material is obtained with the lowest price that will lead to selling prices of its products accepted by its consumers.

The same apparently conflicting interests can be found in the company-customer relationship (Flynn et al, 1990). But this time the company is in a position to deliver products and services at prices they considered to satisfy at least the companies stackeholders interests. On the other hand the consumer, who in the new theory governing the markets, in which the consumer is considered "the king", is convinced that through the transaction he has received the highest quality product and at the appropriate price.

Analysis of these flows may continue with the study of the relationship between the company and its financial creditors (Morellec, Schurhoff 2010). Usually this category of flows appears under the development and the investment financing of the company for business expansion. What kind of interests are manifested in these types of flows? Financial creditors are interested in obtaining the best interest for the capital which they provided to the company. Or such interest is borne by the selling prices of goods and services produced by the company so that the pressure exercised on the consumer, which may at any time to change its supplier of products and services. Furthermore the company hopes to obtain a gain from the investment made and financed by its financial creditor, so from the net profit and the amortization to be able to repay the loan and interest dueto the financial creditor. The implications of this category of flows doesn't stop here. Because the interest will erode the profits of shareholders they will require that the rate of return they expect to be satisfied after debt repayment to financial creditors at least equal to the duration over which the loan was incurred to finance investments required. And there are conflicting interests. Financial lender considers the loan offered at the best interest rate while the company is convinced that she contracted a liability at an interest rate as low. This category of conflicting interests must be supplemented by the interest that the shareholders show,they give up the lender for financial gain, so that for long term they can increase their earnings to.

Flows of goods and services or financial resources are not considered limited. They may be supplemented by flows between the company and human resources (its labor force) or between the company and the state as beneficiary of taxes. These flows of links regardless of their nature are governed by information held by human resources who are responsible with taking the decisions. The information is held in a different way by individuals making their behavior also different. This is the first step that leads us to believe that any flow links between the company and its atakeholders, are based on elements of information asymmetry leading to different behaviors of individuals with influence over the medium and long term on the companies performance.

An agency relationship develops whenever there is a relationship between economic actors and the welfare of one person depends on the actions of the other party; that is, when the welfare of the principal is influenced by the action (or inaction) of the agent(Howard, Snowdon 2005).

A first attempt to define the asymmetry of information in corporate governance theory shows that it is in possession of information in different ways by individuals involved in running streams between the stakeholders and the company, under which individuals have different behaviors and different decisions which may affect the performance of companies.

It is the objective pursued by this research to study factors governing the flow of information asymmetry between the company and stakeholders that are based on the corporate governance system.

2. Information asymmetry and individual behavior in corporate governance system

In the previous paragraph we tried to outline the definition of informational asymmetry in the corporate governance system, which revealed that individuals involved in all streams of links between the company and stakeholders do not have the same information, at the same point of time. This means that individuals will have different behaviors and can take different decisions that may impact on company performance.

Therefore in the theory of information asymmetry, the information that individuals have it's important and the decisions they can take with the information they hold. Place a natural and legitimate question for the companies stakeholders namely: How to measure information asymmetry and its impact on the companies performances?

In an attempt to measure information asymmetry there were taken as the basis for the research the most important flows in the corporate governance system, namely: flow links between the company and its shareholders. In a first step we examined the information asymmetry between the two shareholders who invest in financial markets. To generate the ecuational model of measurement for the information asymmetry we was established the following research hypotheses:

- a) on the financial market there are two investors who are characterized by information asymmetry, according to information they hold about companies where they are to invest;
- b) each investor has a certain amount of information on which companies are to invest and has some form of rate expectations on earnings that they hope one will get from the capital that they invested;
- c) each company provides a standard volume of information covered by the Securities Commission's financial market and while each company has a certain volume of information that is standardized to provide a certain visibility.

Suppose that between the two investors there is an information asymmetry arising from holding a different volume of information for the investor (I_1) against investor (I_2), so that the first investor holds information of the standardized rate of net profit that the company provides to its investors($InfI_1$)while the second investor has the same information on the net gain rate ($InfI_2 = InfI_1$). Both information are part of standardized information and the same for any two investors. In addition to the first, second investor is aware that one of the companies on the capital market is to develop an investment that will lead to an increase in long-term gains to be granted to investors every year during the period of investment. This information is denoted $InfI_2^1$.

The two investors are subject to information asymmetry because the volume of information they hold is different. The first investor has the amount of information that is equal to $InfI_1$, while the second investor has a volume of information formed by the addition of $InfI_2 + InfI_2^1$. Absolute deviation $\Delta InfI = InfI_2 + InfI_2^1 - InfI_1 = InfI_2^1$ is the form of measurement of information asymmetry in which the first investor is to the second investor. If $\Delta InfI = 0$ we can say about the two investors that they have the same volume of information and are not in situations of information asymmetry.

The question that appears, is determined by how the two investors will behave. To answer this question it is essential a thorough analysis of investor expectations that the two have. Yet expectations are determined by the common interest they have. If investors are rational when

they will watch the market to have a capital gains rate to meet their expectations (Kothari, Nikolaev, Loutschina, 2006). The rate of earnings is an standardized information and is provided freely for those two investors.

To address the behavior problem of the two investors in a situation of information asymmetry is necessary to establish the level of information NI_{inf} , for which the two investors will act the same. Regarding this level of information that determines the behavior of the two investors we can distinguish a few situations in which, depending on the information, the investors will take the same decisions or contrary their decisions will be opposite, namely:

The first situation corresponds to a common level of expectations for both investors and the rate of gain that the company offers meets the interests rate they seek. Their expectations are met by the rate of gain (r_c) that the company offers, so although they are in a situation of information asymmetry they decide to invest in shares that the company offers. The conclusion that emerges is that in situations of information asymmetry investor behavior is the same if their expectations are the same.

The second situation corresponds to different levels of earnings that investors expect from their investments. Thus if the rate of gain noted (r_{c1}) that the first investor expects and (r_{c2}) the rate of gain expected by the second investor, and with (r_c) the rate of success the company provides, we will identify the following types of behavior caused by information asymmetry:

a) If the rate of earnings provided by the company is above the expectations of both investors, even in the situation of information asymmetry they will take the decision to invest in company shares;

b) If the rate of earnings provided by the company is below the expectations of both investors then their behavior will be different, the first investor will not invest in company shares because of the fact that it offers a rate of return to capital that would not meet his demands expected for the invested capital. While the second investor is in the same situation as the first, that the expected rate of return is below its requirements, yet he knows that from the investment in the company is next to be obtained a bonus for its shareholders so that, after the company's investment the expectations of its shareholders would be fully realized. The second investor who finds himself in a information asymmetry, decides to invest in the financial market, so he acquires a volume of actions, depending on his available capital.

If we note +1 the situations of where investors that are in a situation of information asymmetry decide to invest in financial markets and -1 where investors chose not to invest when they are in a situation of information asymmetry, form the function of informational asymmetry, in which information is marked $Inf_1, Inf_2, \dots, Inf_n$ the function will look like this:

$$\begin{aligned}
 & 1 \text{ if } r_c \geq r_{c1}; r_{c2} \text{ si } \Delta Inf \neq 0 \\
 f(Inf_i) &= 0 \text{ if } r_c = r_{c1}; r_{c2} \text{ si } \Delta Inf \neq 0 \\
 & -1 \text{ If } r_c < r_{c2} \text{ si } \Delta Inf \neq 0
 \end{aligned}$$

Limits for this function established by information asymmetry, are determined the function refers to a market where there are only two investors who are really in a situation of information asymmetry but also is considered the situation where the two do not communicate with each other, no exchange of information between them taking place. Information asymmetry research will continue at a later stage, a market consisting of N investors, where the asymmetry function can establish investment trends that investors are investing in a company, taking into account that the function market information asymmetry is determined by existing investors in the financial market crowd.

3. Implications of informational asymmetry on the possible performance of the company

It is important to investigate the implications the asymmetry information has on the companies performance. But this implications are determined precisely because the two financial market investors are in a situation of information asymmetry leading to different behaviors. So assume that both investors decide to invest in the company. This corresponds to a value of function of information asymmetry equal to +2, respectively $f(InfI) = +2$ and a situation where $r_c \geq r_{c1}; r_{c2}$ and if the volume of investments made by the two investors are noted $V_1 = N_1 \times V_p$ and $V_2 = N_2 \times V_p$, this means that the company will attract from the capital market a level of financial resources equal to $V = (N_1 + N_2) \times V_p$. Thus, the impact on company performance is determined by the cost savings that the company would be contracted out if the same level of resources for the banking market would pay an interest rate level equal to r_d . Let us denote by k_a the cost shares, this means that the difference between the interest rate margin and cost actions will determine the cost of the two funding sources denoted m_f .

In these circumstances, if $m_f \geq 0$ we are where the information asymmetry will lead to cost savings equal to $E_c = (r_d - k_a)(N_1 + N_2) \times V_p$, which will have a positive influence on company performance, while $m_f < 0$ will cause a negative impact on company performance as determined by the same formula for cost savings. This may correspond to the opportunity to procure funding sources for the banking market as the interest rate is lower to cost operations. Or cost shares can be found in this situation only when the expected rates of earnings investors are characterized by irrational exuberance.

If both investors are subject to information asymmetry and one of them decides to invest and the other identifies other investment opportunities on financial markets then this situation is characterized by the fact that the rate of gain that although the company offers lower rates to gain both investors, however, the second investor hope that he will gain a bonus if the company will achieve the investment expansion that is planned, so he will make the investment.

For this situation, an investor decides to invest and the other gives up the information asymmetry function has the value $f(InfI) = 0$, while $r_c < r_{c1}; r_c \geq r_{c2}$ and the volume of investment that the two investors make is determined by the second investor who buys shares $V_2 = N_2 \times V_p$. The company is in a situation where to procure the necessary financial resources, the lack of investment which would have made the first investor will procure from the banking market which as is known to pay an interest equal to r_d .

Cost savings is also lower than in the first situation analyzed and will be determined using the formula $E_c = (r_d - k_a)N_2 \times V_p$ with specific situations for positive margin financing, where the positive effect on company performance, while negative margin financing there will be a deterioration in company performance.

The cases analyzed concern the impact on companies performances, being limiting in terms of the number of investors who invest on the financial markets. But the information asymmetry specific to the companies stakeholders can be analyzed in conjunction with other indicators of profitability which usually are followed by the stakeholders. Actually eliminating the negative impact that information asymmetry has on company performance can be achieved only by increasing access to non-standard information available about the company. And by increasing the visibility of information that the company offers its stakeholders, there is the risk that the different interpretation of the information provided by the company, investors not to behave the same.

For a market with two investors in a situation of information asymmetry the results obtained upon the companies performance are very different, drew the conclusion was that information asymmetry influence the performance of companies even if they record a performance attractive for investors.

4. Conclusions

Corporate governance system consists of flow links that are established between the company and its stakeholders, involving material, human and financial resources in order to help maximize business value. Link flows are based on information moved from the company to its stakeholders in which most often manifests conflicting interests. The price of raw materials necessary for the company, for example, may both large and small from the market perspective but also from the company's suppliers perspective.

This information is not shared proportionally between stakeholders making it appear the concept of information asymmetry that defines the state in which two individuals at the same time not have the same amount of information. This fact makes the two investors have different behaviors depending on the information they hold and the expectations they have. Information asymmetry function has a value equal to +1 when the investor decides to invest in the company, or this happens only if the profit rate they offer is superior to the investors expectations. Information asymmetry function has a value equal to -1 when the rate of earnings provided by the company is below the hoped value for by investors. There is however a situation where although the function of information asymmetry is equal to -1, the investor decides to invest in the company since he has information that in the next period the company would develop investment to expand business activity and thereby ensure that earnings growth are to meet long-term investor interests. Information asymmetry impact on company performance is also a very interesting research topic. It was found that there are situations for positive values of the function of information asymmetry, which causes a positive impact on company performance and company value equal to the indirect cost savings resulting from resorting to other categories of funding sources, such as the banking market. There are also situations where information asymmetry has a negative impact on company performance because not all investors choose to invest in the company or investors' expectations contrast ratio is above the interest rate charged on the banking market.

Model has also limitations. It refers to a market which consists of two investors which in reality there isn't, but respecting the hypothesis that the specimen could be extended to N investors. Also to consider the hypothesis that investors do not communicate among themselves and develop links between the flows from the company and its shareholders. Future research about information asymmetry should continue to expand the market for N investors, taking into account the fact that they communicate among themselves and with the expansion flow links that are established between the company and the other categories of stakeholders, underlying modern business activity.

Bibliography:

1. Organisation for Economic Co-operation and Development. "OECD Principles of Corporate Governance", OECD Publications Service, 2004, pg. 17-58.
2. Mishkin, Frederich. "Monnaie, banques et marchés financiers", Pearson Education, 2007, pg. 48-50, 206-210.
3. Snowdon, Brian; Vane, Howard R. "Modern macroeconomics. Its origins, development and current state", Edward Elgar Publishing, USA, 2005, pg. 389.
4. Jensen, Michael C. Meckling, William H. "Theory of the firm: managerial behaviour, agency costs and ownership structure", Journal of Financial Economics, 1976, pg.12, 47.

5. Jensen, Michael C. Smith, Clifford W. "The theory of corporate finance: historical overview", 1984, pg. 8-11.
6. Jensen, Michael C. Smith, Clifford W. "Stockholder, manager, and creditor interests: applications of agency theory", 1985, pg. 29-35.
7. Hornibrook, Sue. "Agency theory and supply chain management: goals and incentives in supply chain organisations", International Journal of operations & production management, 2006.
8. Morellec, Erwan. Schurhoff, Norman. "Corporate investment and financing under asymmetric information", Swiss Finance Institute, 2010.
9. Kothari S.P. Loutskina, Elenea. Nikolaev, Valeri. "Agency theory of overvalued equity as an explanation for the accrual anomaly", 2006.