

The agency problem, agency cost and proposed solutions thereto: A South African perspective

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Abstract

The development and growth of listed firms during the past few decades has caused an ever-widening gap between ownership and management. The agency theory addresses this relationship between owners (shareholders) and the custodians of their wealth, that is the management of a firm. If management's goals differ from those of the firm, an agency problem arises and the owners have to incur agency cost to overcome this problem.

Besides discussing the theoretical principles underlying the above issues, an empirical investigation was undertaken, using questionnaires completed by firms listed on the Johannesburg Stock Exchange.

It appears from the responses received as if the agency problem does exist in a significant number of companies. Shareholders at Annual General Meetings seem to concentrate more on statutory issues than on the goals of management. It is comforting, though, that directors must still approve key issues instrumental to the creation of economic wealth, such as the capital budget and financing decisions. The main methods employed by firms and their shareholders to overcome the agency problem are performance driven share and bonus schemes.

It is proposed that a performance measure such as Economic Value Added can and should be used to overcome the agency problem to benefit both shareholders and management.

Key Words

Agency Problem

Economic Value Added

Performance incentive schemes

1 The nature of the agency problem

1.1 Introduction and objective

Until approximately 1870, management and ownership of enterprises were vested in the same person, the capital provider (Lambrechts 1992:27). The emergence of large enterprises, especially the public company as a form of enterprise, was however characterised by a shift to separation between management and ownership of the enterprise. Owners appoint professional managers to manage their companies. It is this separation between ownership and management which forms the basis of the so-called agency theory. The shareholders' role become increasingly more passive while management has a reasonably free hand to pursue goals that may not necessarily correspond with those of the shareholders of the firm.

The goal of this article is to establish if (and to what extent) the agency problem exists among companies listed on the Johannesburg Stock Exchange. It also addresses various agency costs and investigates methods of overcoming the agency problem.

1.2 The agency problem

An agency relationship exists between the agent (management) and the principal (capital providers or owners) of the firm.

If both the agent and the principal are wealth maximisers (as we assume all rational people to be) then the possibility of conflict arises. The agent can and will take action to maximise his/her own wealth, and this action may not necessarily be in the best interest of the principal. If there is a difference between the goals management pursue and than of the owners (shareholder wealth maximisation), one can deduce that the agency problem is present. This aspect is investigated in the empirical section of the study.

Cohen and Uliana (1990:8) mention several examples of costs or actions by management which can give rise to excessive (more than normal) or unnecessary costs and which stem from this conflict situation:

- excessive levels of management remuneration;
- shirking (neglect of duty);

- the appropriation of corporate resources in the form of excessive levels of perks;
- avoiding investing corporate resources in potentially profitable ventures to the detriment of the shareholders;
- the pursuit of sales growth at the expense of profit or shareholder wealth;
- empire building by managers;
- employee welfare objectives; and
- manipulation of dividend policy at the expense of shareholder wealth creation.

If any of these costs are observed in an enterprise one can deduce that an agency problem is present.

Where the owner of an enterprise also attends to the management of the enterprise there can be no conflict between goals and therefore no agency problem exists. The more ownership is vested in people who are not directly involved in the management of the enterprise, the greater the possibility of conflict. It is therefore necessary to investigate the ownership structure of a company. This is done in the empirical part of the study.

1.3 Agency cost

To ensure that the goals of management correspond with those of shareholders, shareholders can institute certain incentive measures or monitoring steps. This does, however, have certain cost implications, with an accompanying detrimental effect on the wealth of the owners. The cost is highest if all management actions are monitored. This type of cost should only be incurred if the benefits to be derived are greater than the cost incurred.

Brigham and Gapenski (1993:21) define agency cost as all costs borne by shareholders to encourage managers to maximise shareholder wealth rather than act in their self interest.

Types of agency cost which can be identified include monitoring (for example auditing), structuring, opportunity and guarantee or insurance cost. In the empirical part of this study, certain aspects of these costs are further discussed together with the empirical results of their occurrence amongst the participants.

2 Methods to overcome the agency problem

2.1 Introduction

According to Brigham and Gapenski (1993:21), agency cost is low if the total remuneration of managers is linked to the market value of the company's share price. If the share price increases, both management's wealth and that of shareholders increase. There are, however, several factors beyond the control of management which influence the share price of the enterprise and which impair the affectivity of such a scheme. These factors are discussed briefly in Section 2.2 below.

Taking the above into consideration, the solution appears to be a shareholders' wealth-based incentive scheme (low agency cost) with some degree of monitoring (high agency cost).

2.2 Performance based incentive measures

Even before the classic work of Jensen and Meckling in 1976, on the implementation of the agency theory in the sphere of financial management, several studies were conducted regarding the connection between management's remuneration and the market price of a company's shares. Several measures are used to evaluate managers' performance. Some of the most common are sales, profit, current value of expected cash flows and value added.

According to Masson (1971:1286), linking a manager's remuneration to the share price, has two benefits. Firstly, managers should then act and make decisions in the best interest of the shareholders. Secondly, the stock exchange plays a reasonably effective role in the capitalisation of the future net income of the enterprise as represented by the share price. Managers should therefore concentrate on the net present value of the enterprise which is in turn closely link to shareholder's wealth.

2.2.1 Share option schemes

A share option scheme can be implemented by the enterprise in several ways and on several conditions. The basic principle is that an employee (usually at management level) has, as part of his/her remuneration, the right to purchase at a fixed price a number of the shares of the enterprise. This scheme is based on the principle that a participant will act and make decisions which will have a favourable influence on the share price of the enterprise. The reality is, however, that there are a number of factors which influence the share price of

an enterprise over which management has no control. Examples of these are interest rates, the general state of the economy (business cycles), foreign exchange markets, political activities, war and rumours.

Share option schemes, based purely on the share price as a yardstick, are thus regarded as a relatively poor incentive measure to encourage managers to act in the interest of the shareholders.

2.2.2 Performance-based share options

As a result of the shortcomings of "ordinary" share option schemes, there is an increasing move towards performance-related share options (Brigham and Gapenski (1993:21)).

In terms of such schemes, managers in the enterprise are remunerated (with shares or cash) but on the basis of specific performance measures such as earnings per share, return on assets (ROA) or return on equity (ROE). The difference between the ordinary share option scheme and performance-based share option schemes, is that some objective yardstick is used in the latter instance in order to reward the managers.

It must be borne in mind that accounting-based measures can be subject to manipulation by management. Rappaport (1986:19) and Stewart (1990:35) reported in detail on the shortcomings of earnings per share and other accounting ratios in evaluating company performance. (It falls beyond the scope of this study to elaborate further on this topic, but the reader who is interested in furthering his knowledge on this subject can, in addition to the above-mentioned references, find an interesting discussion supporting the matter from Stern (1994:39)).

2.2.3 Value creation as performance measurement

One of the most important aspects in the evaluation of the performance of an enterprise is the creation or destruction of value to the capital employed. This value can also be used as a measurement to evaluate management. Economic Value Added (EVA) was developed and popularised by Joel Stern and Bennet Stewart (of the New York consultancy firm, Stern Stewart) over the past decade. Stewart formalised this philosophy and principals in his book, *"The Quest for Value"*.

EVA is a measure employed to evaluate what management has added to (or destroyed of) the total capital of the enterprise. Milunovich and Tsuei

(1996:106) stressed the importance thereof as a management tool in the following statement: "EVA instills capital discipline by forcing managers to consider the actual cost of the capital they employ. Thus, EVA encourages managers to act as owners."

The EVA of an enterprise is calculated as follows (Stewart 1990:137):

$$\begin{aligned} \text{EVA} = & \text{Net income after tax} \\ & \text{PLUS certain adjustments (for example research and} \\ & \text{development costs)} \\ & \text{LESS [weighted average cost of capital x capital]} \end{aligned}$$

A remuneration scheme for managers can be based on the change in EVA (upwards or downwards) of an enterprise over a given period.

There are basically three ways whereby an enterprise's EVA can be improved (Stewart 1990:225):

- 1 increase net income without using more capital;
- 2 invest more capital as long as the return thereon is greater than the cost of that additional capital; and
- 3 liquidate capital or projects where the return is less than the cost thereof.

EVA is an all-embracing measure for the value which the managers of an enterprise add or deduct from the capital employed. To link managers' bonuses with changes in EVA links managers' remuneration directly to changes in shareholders' wealth (Stewart 1990:233). In this way, the management of a company is "forced" to set their goals and actions on economic shareholder wealth creation. The empirical section of this study reports on the number of companies that uses the EVA financial management system.

2.3 Shareholder control and interference

Cohen and Uliana (1990:9) defined "control" as the capability to elect the board of directors of a company. Even though control does not entail active decision-making in the enterprise, it does cover the taking of fundamental decisions such as the appointment of top management.

Shareholders can influence the company's management in two ways. Firstly, they can influence management directly as to how the company should be

managed. Secondly, any shareholder can make a proposal which is voted on at the annual general meeting (AGM) (Brigham & Gapenski 1993:23).

The most fundamental change which shareholders can effect is to change the board of directors. A board of directors which is controlled by management (too many executive directors as opposed to non-executive directors) is regarded as a weak link in the shareholder - management relationship.

The empirical section investigates shareholders' attendance at the AGM, the percentage ownership of directors as well as the matters on which both shareholders and directors vote at the AGM.

2.4 Threat of dismissal

In the past it seldom happened that a senior manager or chief executive officer was dismissed by shareholders. The reason for this was possibly that the ownership of a great number of companies was dispersed, as well as the fact that the agency problem was only brought to the attention of shareholders (and management) over the past two decades.

Nowadays, the reasons given for dismissal are shifting more and more away from "bad health" and "personal reasons" to "on the request of the directors" (Brigham & Gapenski 1993:25).

2.5 Threat of take-overs

Cohen and Uliana (1990:8) quoted an article by Jensen and Ruback that argued that the threat of a take-over serves to monitor the actions of management. If the actions or decisions of management decrease the future earnings or value of shareholders, the share price usually decreases as well. In some instances, the company can become a take-over target. If the management of such a company is replaced, the move can benefit the shareholders.

The threat of take-overs can thus serve as an external control mechanism which ensures that the decisions and actions of management maximise shareholders' wealth.

3 Empirical study

3.1 Research methodology

The primary aim of this study was to investigate the possible existence of the

agency problem at companies listed on the Johannesburg Stock Exchange. Furthermore, an investigation was conducted into the methods which are used to solve this problem.

Of the three most common methods used in the collection of data, namely personal interviews, telephonic interviews and postal surveys (Cooper & Emory 1995:287), the method of a questionnaire completed through postal survey and personal interviews was selected as the most suitable method for the study taking into account the costs involved as well as the availability of the participants. The population consisted of the listed companies on the Johannesburg Stock Exchange. When the survey was performed during September and October 1996, 577 companies were listed.

3.2 Questionnaire design

The questionnaire was in English. It consisted of only twelve questions on the front and back of an A4 page. The questions were phrased in such a way as to investigate both the possible existence of the agency problem and to deduce possible solutions to the problem.

The aim of the first two questions was to determine whether the agency problem does exist. The first question more specifically addressed the measurable goals which management pursue. The answers to this question indicate whether the goals management pursue was compatible with the firm's goal (wealth maximisation) and thus in the interest of the shareholders.

The next three questions attempted to ascertain to what extent shareholders try to control or monitor the decisions and actions of managers. The last seven questions investigated and analysed different aspects of agency cost.

3.3 Response

A total of 577 questionnaires were sent out. The following response was achieved:

- 45 questionnaires were returned.
- In addition, personal interviews were conducted with 28 financial managers (part of the original population of 577) who had not taken part in the postal survey. This was done in order to increase the low response rate from the postal survey.
- 7 enterprises indicated that it is company policy not to participate in any surveys.
- A total of 66 (45 + 28 - 7) (11%) responses could be used in the analysis.

It is important to note that some individual questions on the questionnaires returned, were not answered. Therefore the actual number of responses which could be used were in some instances less than 66.

3.4 Analysis of the results

The results are discussed **per question**, focusing on the aim, results and conclusion drawn.

Question 1

Aim:

The aim of this question was to determine which goals the management of a company pursue. Goals which do not coincide with the maximisation of shareholders' wealth, are an indication of the existence of the agency problem.

Results:

The response of only 61 companies could be used for analysis. Value maximising is supported by 27 (44%) of the 61 companies while 36 (59%) indicated that improvement or growth in earnings is pursued as a goal. It was disappointing that only 4 companies specifically stated EVA as goal. Operating efficiency plays another major part (25%) while business ethics enjoys the lowest priority. Other goals include vision, cash flow, occupational safety and the increase in net assets.

Conclusion:

It appears from the response that a significant number of companies pursue goals which cannot be reconciled with an increase in shareholders' wealth. It can safely be assumed that the problem is aggravated by the apparent belief that an increase in earnings and return on equity (ROE) automatically result in an increase in shareholders' wealth. In the discussion on the theory it has been indicated that this might not necessarily be the case. It can therefore be concluded that an agency problem exists among a significant number of the respondents.

Question 2

Aim:

The aim of this question was to determine how many shares are in the possession of management and employees and how many are owned by outsiders (who have nothing to do with the day to day running of the company).

The greater the percentage in the hands of outsiders, the greater the probability that the goals pursued by management do not necessarily correspond with the goals of the shareholders. From this it can be deduced that if the board of directors, as strategic executive organ of the company and representative of the shareholders, does not own a substantial percentage of the issued share capital, the possibility of conflict between the goals of the two groups increases.

Results:

Of the 66 companies' responses, 60 could be used for analysis. In 42 (70%) of the 60 companies, between 90% and 100% of the shares are owned by outsiders, while in 49 (82%) of the instances, the percentage shares owned by outsiders is between 70% and 100%. In two instances, the percentage of share ownership by outsiders in the company is between 50% and 100%.

An analysis of the percentage of shares owned by the board of directors, excluding the managing director, shows the following:

0%	-	10 companies
less than 1%	-	23 companies
between 1% and 4%	-	11 companies
between 4% and 30%	-	6 companies
more than 30%	-	10 companies

Conclusion:

The relatively low percentage of shares owned by management and employees enhances the possibility for occurrence of the agency problem. This deduction is further supported by the low percentage of shares held by the directors in general.

Question 3

Aim:

The most direct way in which a shareholder who is not employed by the company nor serves on the board of directors can protect his/her interests, is by exercising his/her vote at the annual general meeting (AGM) which is compulsory in terms of the Companies Act. This question attempted to determine to what extent the shareholders employ this mechanism. If the voting percentage of shareholders at the AGM is low, this may also indicate a lack of knowledge among the shareholders about the existence of the agency problem.

Results:

The response of 65 companies could be used. The average percentage vote not exercised, amounts to 27%. The modus interval is 31% to 40% with 17 companies in this category. Four companies indicated that more than 90% of the votes are not exercised. One company indicated that 100% of the votes are not exercised!

Conclusion:

From these results it can be deduced that the average percentage of votes which are actually exercised is relatively high. Other factors which were not investigated in this study can naturally also play a role in the explanation of the voting percentage (high or low) at the AGM. For example, shareholders of companies which deliver good results year after year were most probably less inclined to use their vote or to attend the AGM at all.

Question 4**Aim:**

The aim of this question was to test the issue of control or monitoring over the actions and decisions of management by looking at the decisions which require the approval of the board of directors. The response to this question is to be read in conjunction with the response to Question 2, which investigated what percentage of the directors were also shareholders, which in turn can be an indication of the measure of control.

Results:

The response of 54 companies could be used. A total of 82 answers were obtained and these were divided into 8 categories. Of the 8 categories, it is mainly the capital budget, take-overs and mergers as well as the financing decision which must be approved by the board of directors. These three aspects were shown by 67%, 41% and 20% respectively of the 54 respondents to be decisions that need approval by the board of directors.

Conclusion:

In the literature study, it was shown that EVA is arguably the best method to determine shareholders' wealth. There are three main factors which determine the EVA of a company, namely adjusted net income after tax, capital employed and the cost of capital. It follows then that the aspects which influence these factors, namely the capital budget and the financing structure of the company, are the most important monitoring aspects according to the board of directors. It can thus be deduced that the directors can exercise a relatively important and efficient measure of control over shareholders' wealth.

Question 5

Aim:

The aim of this question was to investigate further the aspect of control over the actions or decisions of management. In this instance, aspects for which approval from the shareholders is required were investigated.

The results of this question must be read in conjunction with the response to Question 3, which analysed the percentage of shareholders that exercised their vote (and thus their control action, even if it is small) at the annual general meeting.

Results:

The response of 59 companies could be used. 17% of the respondents indicated that none of the decisions had to be approved by the shareholders, while a further 17% indicated the same decisions which were supplied as answers in Question 4 (directors' approval). The balance, an overwhelming 66%, indicated that actions for which the approval of shareholders are required are stipulated by statute. This includes decisions such as share issues, remuneration of directors, appointment of auditors and directors, aspects regarding the Companies Act and the rules of the Johannesburg Stock Exchange.

Conclusion:

It appears that a very small percentage of the shareholders monitor or try to control those actions of management which can influence shareholders' wealth. Although the results of Question 3 indicated that the majority of the shareholders exercised their vote, it appeared to be mostly the statutory actions which enjoy attention. Strategic decisions are left to the directors, which emphasises further the separation between shareholders (ownership) and management. There is thus a considerable potential for the agency problem to arise.

Question 6

Aim:

The aim of this question was to determine whether opportunity cost (see Section 1.3) occurs as a result of a complex, slow or cumbersome decision-making structure.

Results:

The response of 61 companies could be used. Seventeen (28%) of the respondents answered "yes" to this question. Unfortunately none of the companies responded to the request to supply examples.

Conclusion:

It is very difficult to determine or quantify opportunity cost. Because some of the respondents were of the opinion that opportunities in the market are lost as a result of the decision-making hierarchy, it can, however, be deduced that this cost does occur.

Question 7**Aim:**

The aim with this question was to determine to what extent incentive schemes, which attempt to harmonise the actions of management with the goal of shareholders' wealth, are used by companies.

Results:

The response of 65 companies could be used. It appeared clearly from the completed questionnaires that two main groups of incentive schemes are used, namely a share option scheme and a bonus scheme. The bonuses are normally based on some performance measure such as net income. Of the companies, 4 indicated that EVA is used as a measure.

Only 9 of the companies have no such scheme in place. Of the companies, 24 use a share option scheme, 13 use a bonus scheme while 19 use both.

Conclusion:

The occurrence of incentive schemes is very high and it thus appears to be one of the most popular methods by which the shareholders, as owners, try to circumvent the agency problem.

Question 8**Aim:**

The aim of Question 8 was to determine the occurrence of exceptional top management fringe benefits.

Results:

The response of 62 companies could be used. Only 5 of the companies answered affirmatively to this question. These benefits were comprised of, *inter alia*, increased provident fund contributions and increased pension fund contributions.

Conclusion:

Based solely on the completed questionnaires, it appears that this phenomenon does not manifest itself widely. The fact that so few of the respondents

answered in the affirmative to this question may be attributed to the fact that this type of expenditure is, on the one hand, not easily noticed or measurable and, on the other hand, that top management does not want to popularise (or acknowledge) the existence of such expenditure.

Question 9

Aim:

Donations by companies to their favourite welfare organisations, although surely sociably acceptable, does not necessarily contribute to shareholder's wealth. It is very difficult to predict or quantify whether donations will have a positive or negative financial effect for a company or its shareholders. It falls outside the scope of this study to discuss this matter in detail. This question merely attempts to at least establish the extent of donations among the participant companies.

Results:

The response of 45 companies could be used. Of the companies, 32 (71%) indicated that donations amount to less than 1,5% of their net income, while 4 companies regarded their donations as insignificant. Of the companies, 9 designated a rand value of which only two amounts were substantial, namely R5 million and R15 million respectively.

Conclusion:

It does not appear as if donations play a significant role in the South African situation. The maximum allowable deduction for tax purposes (5% of net income), coupled with the fact that donations may only be made to approved institutions probably plays a direct role in what amounts are donated.

Question 10 and 11

Aim:

The internal and external audit is the most important instrument for purpose of monitoring the actions of management see Section 1.3). Any (agency) cost should only be incurred in so far as the benefits exceed the cost thereof. This question attempts to test at least management's opinion in this regard.

Results:

Of the 61 companies which answered this question, 13 (21%) were of the opinion that the benefits of an internal audit do not justify the cost thereof.

Of the 61 respondents, 26 (43%) were of the opinion that the benefits of an external audit do not justify the cost thereof.

Conclusion:

Management is, in general, less critical regarding internal audits than they are in respect of external audits. The external audit is obviously compulsory, according to statute, which may, in the view of management, cause the nature and extent thereof to be less efficient. Although difficult (if not impossible) to quantify, it can be safely assumed that the (agency) cost of both the internal and external audits will be less than the potential benefits of this monitoring action undertaken on behalf of the shareholders. It is, however, significant that there is such a large measure of negative perceptions regarding the whole audit process, especially if one takes into consideration the fact that the questionnaires were mainly completed by financial managers. This is definitely an aspect which requires further research, especially from the viewpoint of the shareholder.

Question 12**Aim:**

Shareholders can protect themselves against a reduction in wealth as a result of the actions of management by letting the company take out fidelity guarantee insurance. This question attempts to determine the extent of this type of insurance.

Results:

Of the 51 companies that answered the question, 16 have no such insurance; 35 companies do have such insurance, but indicate the cost thereof to be insignificant or less than 1% of the net income; in 5 instances, the value amounted to more than 1%, while 4 companies indicated a rand value. The highest percentage was 10% and the highest rand value was R25 million.

Conclusion:

This type of insurance is fairly common and amounts, in certain instances, to substantial amounts.

4 Summary

In conclusion, it appears clearly from the responses to Questions 1 and 2 that the agency problem does exist in a substantial number of cases. The goals of management differ from the goals of shareholders. This deduction is further supported by the fact that a relatively small percentage of the issued share capital is owned by management and the board of directors.

At first glance it appears that shareholders do try to address the agency problem by the relatively high voting percentage at the annual general meeting,

but after further investigation it appeared to be mostly statutory aspects which enjoyed attention at the annual general meeting. What is, however, comforting is the fact that the board of directors must approve certain aspects which are instrumental in the creation of economic wealth, such as capital budgets and the financing decision.

The most important method used to overcome the agency problem is performance-based shares, bonus schemes and external audits.

It was furthermore found that agency cost appears in the form of opportunity cost, donations and insurance. Almost no exceptional top management benefits appeared.

EVA as goal and a performance measure is found in relatively few companies in South Africa. Some of the world's biggest conglomerates (Coca Cola, Quaker Oats and Briggs and Stratton) use the EVA financial management system with its many advantages, as indicated in the discussion on the theory. It falls beyond the scope of this study to entertain a detailed discussion on EVA, but EVA can provide the link between management and the shareholders so that agency cost is not only minimised, but the agency problem in itself is also greatly reduced.

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