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Economics of organizational management

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To what extent is the compensation of real-estate agents consistent with the predictions of principal-agent theory? What does theory suggest would be the ideal compensation scheme, and how does this compare to common practice?

Introduction

Agency theory examines organizations from a transaction perspective. A company or a firm can be seen as “an aggregation of transaction or negotiations”. Jensen and Meckling argued that “most organizations are simply legal fictions which serve as the nexus for a system of contractual relations among individuals”¹. Therefore contract is the main source through which these relations are established and verified. The purpose of the agency theory is to understand the form taken by these contracts and their implication for a firm.

Agency theory is based on the notion that informational problems prevent society from achieving the first best allocation of resources. A principal is commonly faced with uncertainty and information asymmetry. Another distortion is incentives. When a principal empowers an agent to act on his behalf, he is clearly aiming to optimize his utility. And bearing in mind, that all individuals are driven by self-interest, an agent is doing exactly the same. Agency theory is trying to describe such a contractual form, which will guarantee the desired outcome for a principal, under the constraints of information asymmetry, different attitudes to risk and self-interest of an agent.

The importance of this task drew a lot of interest from scholars in different fields, such as economics, management and political science. Though theory itself originated in 60s - early 1970, it was not until 80s when it received full recognition. In one of the key works on this subject “Agency theory: an assessment and review” Kathleen Eisenhardt concluded that “agency theory offers unique insight into information systems, outcome uncertainty, incentives, and risk and is empirically valid perspective”².

The results of practical application of agency theory though positive in a short-run, proved to be somewhat controversial through the years. After the credit crunch and collapse of many once powerful companies, some have gone so far as to blame agency theory for creating the corporate culture that led to scandals, theft and corruption of the highest levels. Khurana, Nohria and Penrice at Harvard Business School have suggested that “the doctrine of shareholder

¹ Kulkarni, M. Agency Theory. 1988. *Managerial Finance*, vol. 14, no. 4. p.6.

² Eisenhardt, K. Agency theory: an assessment and review. 1989. *The academy of management review*, vol. 14, no.1. p.57.

primacy combined with agency theory led directly to many of the worst profit-maximizing abuses unmasked in the recent wave of corporate scandals”³.

Agency theory: main statements

The basic transaction or relationship considered by agency theory is that of a principal (for example, firm owner) and his or her agent. Within the constraints (conflicts), which can take many different forms, a principal must assure a desired outcome. In other words, he has to contract their relations in such a way, that the agent is motivated, exerts full effort and acts in his best interests.

We will look at and discuss 9 key propositions given by Kathleen Eisenhardt, which specify how a principal should build contractual relations with an agent.

The simple conflict between a principal and an agent is a **goal** conflict. In the case of complete information, a principal can observe or verify the agent’s actions and work with him on the basis of outcome-oriented contract (e.g. commissions, stock options, transfer of property rights).

1: “When the contract between the principal and agent is outcome based, the agent is more likely to behave in the interests of the principal”.

2: “When the principal has information to verify agent behavior, the agent is more likely to behave in the interests of the principal”.

It important to notice that if there is no goal conflict, the agent will behave as the principal would like, regardless of the fact if his behavior is monitored or not.

3: “The goal conflict between principal and agent is negatively related to behavior-based contracts and positively related to outcome based contracts”.

But this is a very unlikely scenario in real life situations. Commonly a principal is facing **goal conflict and asymmetric information**: he does not know completely what the agent has done in the past, today or will do tomorrow. It is hard for a principal to evaluate or verify the information. We refer to *moral hazard* in situations when the agent does not make enough effort or in other words is shirking. For example, a Head of a Department can allocate all the work to his subordinates and then claim the achievements as his own. Those who shirk their

³ Khurana, R.,Nohria, N., Penrice, D. Management as a profession. 2005. p. 7.

responsibilities not only fail to contribute equally to the firm, but may seriously affect the firm's performance in the long-run.

Another threat is *adverse selection* which refers to misrepresentation by an agent. During the interview process an agent can claim non existing work experience or achievements and often it is not easy for a principal to verify the words or it can be very costly. So information in this case becomes a commodity for a principal, something he can invest in and get a positive return.

4: *“Information systems are positively related to behavior-based contracts and negatively related to outcome-based contracts”.*

Another issue here is different attitudes towards **risks**. In case of outcome uncertainty it might be very costly for a principal to transfer the risk to an agent, i.e. work with him on outcome-based contract. When the agent's salary or reward depends only on the outcome, he may take more risk than the principal would want him to. Depending on how risk averse an agent is, a principal can either pass a risk to an agent or motivate him not to take any risks via a behavior oriented contract (e.g. salary).

5: *“Outcome uncertainty is positively related to behavior-based contracts and negatively related to outcome-based contracts”.*

6: *“The risk aversion of the agent is positively related to behavior based contracts and negatively related to outcome-based contracts”.*

7: *“The risk aversion of the principal is negatively related to behavior-based contracts and positively related to outcome based contracts”.*

Another notion which helps to build the relationship between a principal and an agent is the *programmability* of the task. If a principal knows what to expect from agent's actions and which behavior is appropriate, then it is easier to evaluate the results. In some cases *measurability* of outcome can be a problem. For some tasks it takes a lot of time to reach the final stage. For example, a Creative Director of a fashion company starts working on a collection 1 year before the garments actually reach the store. And it takes another 3-4 months for a collection to be sold and for a principal to finally verify the effort an agent has exerted. Sometimes output can only be viewed as a team effort or it can be severely affected by external factors.

8: “Task programmability is positively related to behavior-based contracts and negatively related to outcome-based contracts”.

9: “Outcome measurability is negatively related to behavior based contracts and positively related to outcome-based contracts”.

In all of these scenarios *time* is a very important factor. If the relationship between a principal and an agent is likely to be a short-term, then the information asymmetry is greater. If an agent and a principal cooperate on a long-term basis, then it is very likely that a principal will form his opinion and will be able to evaluate the agent’s actions.

Despite the fact that agency theory does explain basic relations between a principal and an agent, it has many limitations when we look at specific cases. As Arthurs and Busenitz argue “the agency problem is not uniform throughout the life of a venture... and it is likely to vary in its usefulness”⁴. Moreover the agency theory is focused only on goals conflict and offers little explanation when alignment of goals is achieved. In other words, constant application of normative assumptions of agency theory can harm relations of a principal and an agent, “encouraging overbearing contracts and unnecessary structural constraints”⁵. Another interesting point noted by McGuire J. is that not every organization “always strives for economic efficiency, or even optimal economic efficiency”⁶. When less rational aspects are considered, it becomes problematic to apply agency theory knowledge to some realities.

Distortions: real estate broker (agent) vs house seller (principal)

Real estate market is a classic example of distortions (conflict) between a principal (seller of a house) and an agent (real estate broker). When a person is willing to sell a house, he normally recruits a real estate agent. A person may be constrained by time, knowledge or access to potential clients. A real estate agent is somebody who in theory can help to resolve all the problems and sell a house at the best price. In reality, according to empirical evidence and many research papers, real estate agents have strong incentives to lower the price of a house and sell it as fast as possible.

Commonly compensation of real estate agents is a variable pay (commission), which is a monetary reward that is contingent on the achieved result. According to agency theory this is the

⁴ Arthurs, J., Busenitz, L. The boundaries and limitations of agency theory.2003. p.149

⁵ Arthurs, J., Busenitz, L. The boundaries and limitations of agency theory.2003. p.149.

⁶ Kulkarni, M. Agency Theory. 1988. *Managerial Finance*, vol. 14, no. 4. p.8.

most efficient contractual method: an agent does not get any money unless he sells the house. But the problem is that the agent's commission is always fixed and does not depend on the final buying price of a property.

In the UK the sales commission ranges between 2% and 3% and can be split if the real estate broker represents an agency. This rate varies from country to country, for example in the USA it is fixed at 6%, when in Russia the where market is not regulated commission fluctuates from 1% to 7%. The commission is further split between seller and buyer agents and between companies they represent, so the actual pay an agent gets is much lower, for example, for the US this is commonly 1.5% of profit margin.

Before a property is sold an agent is facing expenditure on advertising and marketing, he has to organize house showings and exert effort to attract new viewings. And because his commission is too small for him to compensate for waiting longer, his best strategy is "to advise the homeowner to accept any offer that is in the best interest of the agent to accept, and the homeowner will follow the agent's advice"⁷. Oz Shy in his research paper "Real estate brokers and commission" provides evidence that "faster sales often reduce broker's costs by more than the extra commission he might receive from trying to sell at higher prices"⁸ (if the brokers commission is below 50% of selling price, which is clearly always the case).

Another distortion occurs because real estate agents are better informed about a value of a house and the state of a local housing market. Consistent with predictions of agency theory, asymmetry of information allows an agent to pressure a principal to reduce the price and sell a house quicker. According to Levitt and Syverson homes owned by real estate agents "sell for about 3.7% more than other houses and stay on the market about 9.5 days longer"⁹. The statement can be further supported by the empirical data collected by Levitt and Syverson, who found that the rise of the Internet has reduced information advantage of realtors. If in the period 1992-1995 agent homes sold for 4.9% more than those of their clients and were on the market two weeks longer, then in 2000-2002 agents gained only 2.9% more for their houses and average property stayed on the market only 2.5 days longer¹⁰.

Another prediction of agency theory is proved by Zorn and Larsen, Schroeter and Knoll, who find that "brokers exert more effort on high-priced houses under a percentage commission

⁷ Levitt,S., Syverson, C.2005.Market distortions when agents are better informed.p.5.

⁸ Shy, O. 2009. Real estate brokers and commission: theory and calibrations. p.2.

⁹ Levitt,S., Syverson, C.2005.Market distortions when agents are better informed. p.1.

¹⁰ Levitt,S., Syverson, C.2005.Market distortions when agents are better informed. p.3.

arrangement than under a fixed fee contract”¹¹. But again for average properties, an agent is always better off selling today rather than waiting. For example, for the house owner waiting may mean additional 20 000 pounds, but for the agent this translates into 300 pounds, uncertainty and additional effort.

Economists notice that despite clear conflict between a principal (seller of a house) and an agent (real estate broker) from a social welfare standpoint, “having the house sit empty would be more costly than the distortion created by the current structure, which is merely a transfer from seller to buyer”¹². In other words, despite the fact that agents do not work to the best interest of sellers, they sell the houses faster and it helps to eliminate costs of delay both to buyers and sellers.

Real estate: is there a better way to compensate?

What we observe is that current compensation scheme is not working to the best benefits of a principal. And we are right to ask why in spite of the obvious flows, this scheme in real estate remained so pervasive and resistant to change. Are there any other contractual methods, which can better align interests of an agent and a principal?

According to many scholars there are more efficient methods, but their implementation is complex and is not possible in reality due to institutional and regulatory barriers and financial constraints.

Levitt and Syverson suggest that a scheme employed in resale of used automobiles might be applicable to real estate. “By purchasing the used cars outright, the intermediary then earns the full markup, rather than a small percentage as with houses”¹³. Jares, Larsen and Zorn develop this idea even further by proposing that the home seller sells to an agent a *put option* on the property. “The put option gives the agent the right to convey the title back to the home seller at the original purchase price at any time during listing period. This helps ensure the former owner’s cooperation in the agent’s marketing effort”¹⁴. They prove that put option represents Nash equilibrium when both the original homeowner and the agent have optimal incentives.

But both of the schemes are not efficient enough. Under first one the costs to maintain a house are too high and exceed any extra commission an agent may get. Under second scheme, once the homeowner has sold the property, there is no incentive to stay. Larsen argues, that

¹¹ Shy, O. 2009. Real estate brokers and commission: theory and calibrations. p.4

¹² Levitt, S., Syverson, C. 2005. Market distortions when agents are better informed. p.4

¹³ Levitt, S., Syverson, C. 2005. Market distortions when agents are better informed. p.19

¹⁴ Jares, T., Larsen, J., Zorn, T. 2000. An optimal incentive system for real estate agents. JRER, vol.20, No.1/2. p.49

“unoccupied homes take longer to sell”¹⁵. Also there are other constraints: a possible decrease in demand and large inventories, which require high levels of debt. On top of that it might be hard to sign the contract in the first place due to “differences in time preferences or differences in opinion concerning property value”.

Other proposed solutions include nonlinear commission structures and independent appraisal. But once again none of these structures we observe in practice and there is a good reason for that. Nonlinear commission is difficult to implement, because a homeowner is less informed than an agent. He is supposed to set effective breakpoints in a contract to motivate an agent to sell a house for a higher price. Clearly a homeowner is unable to do that. Independent appraisal may be of help, because an appraiser is disinterested in the final transaction price, which means that there are no moral hazard problems. But on the other hand, there is a question how well an individual appraiser is informed of the current market situation and how well his price estimate reflects reality.

Therefore despite the fact that the current compensation scheme sub-optimally aligns the incentives of an agent and a homeowner, it is unlikely that another scheme will replace this one in the foreseeable future. Levitt and Syverson argue that this may be the case “that agents provide a bundle of services besides just valuation information, and these services are worth the commission cost despite the distortions highlighted above”¹⁶.

Conclusion

Despite the fact that the agency theory provides valuable insight into the relations of a principal and an agent, its models seem to lack practical relevance and fail to describe and explain real-world contractual relationships. The real-estate market is one example of that. Consistent with agency theory a house owner works with an agent under percentage commission arrangement. But an agent’s commission is such a small portion of the total value of the house, that the contract fails to align interests of a principal and an agent. Asymmetry of information and self-interests motivate agent to distort information for a personal gain: lower the price of a house in order to secure faster sale.

¹⁵ Jares, T., Larsen, J., Zorn, T. 2000. An optimal incentive system for real estate agents. JRER, vol.20, No.1/2. p.55

¹⁶ Levitt, S., Syverson, C. 2005. Market distortions when agents are better informed. p.21

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