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ABSTRACT

Markets for Ideas: Theory and Evidence from the Movie Industry

by

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Doctor of Philosophy in Economics
Stern School of Business, New York University
May, 2011

The central question of this dissertation is "At what stage of development should an entrepreneur sell his/her idea?" In the market for original movie ideas in Hollywood, this question is equivalent to the screenwriter's choice between selling a storyline versus a complete script. I first build a formal model, and then derive empirical predictions that I test on a novel data set from Hollywood. The empirical results are consistent with these predictions. The last part of the dissertation extends the theory and the empirical analysis to study the roles of intermediaries (i.e., literary agencies).

This dissertation highlights the access barriers to a desirable audience faced by a seller of relatively low observable quality, as well as the seller's selection behavior in choosing what ideas to sell at an earlier versus a later stage. These results have interesting implications for both the seller's and the buyer's strategies, as well as for policies of protecting idea/intellectual property transactions.

EXECUTIVE SUMMARY

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This dissertation studies an entrepreneur's behaviors in developing and selling an idea.[1] In order to commercialize their ideas, most entrepreneurs need to sell them to another party. Since Arrow (1962), a lot of attention has been given to the problem of how to capture rents of an idea under incomplete information and weak property rights (e.g., Anton and Yao (1994, 2005) among others). But if we take a step back and consider the actual development process of these ideas, frequently, there are huge uncertainty and significant (and irreversible) investments at stake. This leads to the important question of "How far should an entrepreneur develop his idea before selling it?"

The stage of sale is important for entrepreneurs because it affects how much rents they are able to capture from their ideas; it determines the extent of sunk costs, as well as the severeness of information asymmetry and expropriation risk at the point of sale. Understanding these trade-offs could help us address questions across a range of industries, such as: "At what phase should a biotech firm form a research alliance with a pharmaceutical firm?" "How much of his own capital should an entrepreneur

[1] I use "idea" to mean various types of intellectual properties, and use "sale" to mean various forms of transactions, including a research alliance, a licensing agreement, or an outright sale of an idea.

invest in his business idea before pursuing VC financing?" "Should a fashion designer approach the retailer with an idea of a clothing line or a complete line?"

I study this question in a specific context; namely, the market for original movie ideas in Hollywood. Besides being a significant and fascinating market in and of itself,[2] it provides a relatively clean and simple setup to study the question of sale stage. Empirically, the data are reasonably rich, and in particular, the industry's relatively short life cycle allows me to observe the sale's final outcome.

Here, screenwriters (writers, hereafter) sell original movie ideas to movie studios. The stage of sale is equivalent to the writer's choice of selling the storyline and (if sold) getting paid by the buyer to write the script (*pitch*), versus investing effort to write up the idea and sell a complete script (*spec*).[3] Thus, in this context, the relevant research question is: "When should a writer pitch versus spec an idea?"

Chapter 2 gives a detailed description of the market: players, stage of sales, how the writer is compensated and protected. The sellers are screenwriters, and the buyers are movie studios and production companies.[4] Somewhere in between, talent and literary agents play an important role in connecting the seller and the buyer. Because I focus on transactions of original movie ideas, I exclude cases where the writer is commissioned by the buyer to adapt other people's ideas, such as adapting a book.

From an idea to the theater, a movie project typically goes through several stages: development, pre-production, filming, post-production, and distribution. What I study happens at the beginning of the development stage. The writer typically sells his ideas at two stages: pitch and spec. Pitching means that the writer sets up a ten to thirty-minute meeting with the studio executives/producers to present his idea. The writer describes the theme, basic plots, characters, and genre of the movie. If the pitch is sold, the writer is then hired to write the script. Specing means that the writer writes up the script,

[2]The price of an idea ranges from a few thousand dollars to possibly a few millions; thousands of writers supply ideas to about half of all movies released in the U.S., with the other half being adaptations and sequels. If I am only counting box office sales in the U.S., this is an industry of annual revenues of over ten billion dollars.

[3]The writers' union requires that the buyer hire the writer who sells the pitch to write the first draft. In keeping with the industry convention, I use "spec" and "pitch" as both a verb and a noun in this paper.

[4]Movies studios are vertically integrated production and distribution companies, while productions companies are typically a team of producers that rely on the studios for financing and distribution.

which is about 120 pages, and then sells the complete script.

In general, copyright protection is more effective for a spec than for a pitch for the following reasons. First, pure ideas, concepts, or themes are not protected by copyright. To seek for some protection for a pitch, writers usually write down a page or two of the story's outline, which is called a treatment. However, plots, dialogues and characters in a complete script are much more concrete than that in a short outline. Hence, having a complete script, in general, increases the probability of success in case of litigation. Second, having a complete script makes the buyer more alert about the origin of the idea, hence, prevents the writer from unintentional expropriation.

In Chapter 3, I formalize the writer's choice of sale stage in a formal model. The key elements of the model are chosen to reflect, in a simplistic way, how the market works. Given an idea, the writer decides whether to pitch, to spec, or to drop it. The writer has an observable quality (e.g., his previous industry experience) and also possesses private information regarding this particular idea's value. The buyer, in turn, decides whether or not to meet the writer, meaning either to listen to his pitch or to read his script. Additional information is realized (to both parties) after the meeting because of the buyer's knowledge and expertise, though the extent of additional information realized depends on whether there is a complete script.[5] Finally, disclosing the idea exposes the writer to the risk of expropriation; however, this risk decreases as the idea is further developed largely because copyright protection is more effective.[6]

The model puts an emphasis on the buyer's participation incentives because meeting a writer is costly. In addition to the physical costs and the opportunity cost of time for evaluating an idea, it is costly also because agreeing to meet exposes the buyer to the potential legal disputes that come with the first-hand knowledge of an idea (e.g., idea-theft or copyright infringement claims).[7] Adding the buyer's meeting decision confronts another challenge an idea seller faces: the access barrier to a desirable audience that

[5] The buyer's knowledge might come from her extensive experience in commercialization, or might simply reflect her idiosyncratic taste, which is unknown to the writer beforehand.

[6] Interviews with writers and an internal lawyer from one of the biggest talent agencies confirm that stronger legal protection is an important motivation to spec.

[7] This is why movie production companies routinely return unsolicited scripts unopened to writers, and toy companies do the same with unsolicited toy designs.

determines whether he gets a chance to disclose his idea at all.

From the writer's point of view, there is a trade-off between "pitching" and "specing." Writing a full script is more expensive to the writer than talking about the idea. In this sense, one advantage of pitching is that if the idea turns out not to be that interesting, the writer can save himself the cost of writing the full script.[8] Another advantage of pitching is that the buyer shares the writing cost, instead of the writer bearing it alone. However, pitching implies a greater risk of expropriation, leaving the writer with a smaller share of the idea's surplus. The problem becomes more complex to the extent that the writer's choice signals private information that he possesses.

When would we expect the writer to pitch his idea rather than spec it? I show that writers of relatively low observable quality face barriers to selling pitches (i.e., earlier-stage ideas) because the buyer does not find it worthwhile meeting them. Hence, they either have to write up the complete script or to drop the idea entirely. When the writer's observable quality is good enough such that the buyer would want to meet him regardless of how complete the idea is, the writer would want to spec if his private signal of the idea's value is above a certain threshold, and to pitch otherwise. Furthermore, the better the writer's observable quality, the more often he would want to spec.

Two predications come out of the model that are testable using the data: First, conditional on sale, the likelihood of a spec is high for writers of low and high observable qualities and low for writers in the middle; Second, when the writer's observable quality is relatively high, conditional on release, a spec is expected to perform better than a pitch.

In Chapter 4, I test the model's predictions using a novel data set from Hollywood.[9] The data consist of 1,638 original movie ideas sold between 1998 and 2003. The sales data come from *Done Deal Pro*. The characteristics of the writers, as well as those of the movies, come from *IMDb* and *TheNumbers*. I observe the stage at which the idea is sold

[8] This "option value" of pitching is reflected in a quote from *The Artful Writer*: "It takes about 1-2 weeks to develop a solid pitch. If a studio/producer/company bites, you go into draft knowing you're not wasting your time."

[9] I am aware of another paper Goetzmann et al. (2004), who use a similar data set to study the role of soft information on the pricing of intellectual properties.

and the characteristics of the writer who sells it. In particular, to measure the writer's observable quality, I use the number of the writer's movies that have been released through the major studios in the previous five years. Lastly, the industry's relatively short project life cycle also allows me to observe the final outcome of the sale. This provides information about an idea's quality, which is, otherwise, difficult to measure.[10]

The data confirm my theoretical predictions. First, the predicted likelihood of a spec sale is 0.59 when the writer has no major writing credits in the previous five years; it drops to 0.42 and 0.37 for writers with one and two credits, and increases to 0.63 and 0.74 for writers with three and four and more credits. Both the decline and the increase are statistically significant at the 5% level. Using the theory model to interpret this result, writers without any major writing credits find it hard to obtain an audience for their pitch, hence, have to write up a complete script. Once the writer has some visibility in the industry, he would love to pitch and also can get his pitches heard. However, top writers would more often sell their ideas as a spec because in that way, they can capture a greater share of their idea's surplus.

Second, for writers with two or more credits, when looking at movies that are released, a spec outperforms a pitch. Other things being equal, a spec, on average, performs at least 60% better than a pitch at the U.S. box office, and takes at least 13 months less time to get to the theater.[11] These results are consistent with the writer's selection behavior (i.e., choosing better ideas to spec and worse ideas to pitch).

Qualitatively, these results are robust to different ways of counting the credits, and partly robust to alternative ways to measure the writer's observable quality. Evidence from other aspects of the data, such as prices paid for these ideas, suggests that these results are robust to the potential bias caused by the writer's characteristics unobservable to the researcher but observable to the buyer. The data also refute that the buyer's

[10]This feature of the data is in contrast to the difficulties in studying industries that have much longer life cycles. The average project cycle is between three and four years, while, as Lerner and Merges (1998) write about alliances in the biotech industry, "[I]t frequently takes a decade or longer for a therapeutic product to move from animal studies to approval by the US Food and Drug Administration (FDA)."

[11]For the time to market, because specs are at a more advanced stage than pitches, I add four months to this variable for all specs. The reason for four months is that a typical pitch contract requires that the writer turns in the first draft within three months, and gives the buyer two weeks to a month to decide whether to continue.

negative influence on the quality of a project after pitches are sold explains the worse performance of pitches (conditional on release), and that given the writer's observable quality, his choice is mainly driven by heterogenous writing costs.

In Chapter 5, I extend the theory and the empirical analysis to study the roles of intermediaries, which are literary agencies in this context. For writers, agencies mainly help them find buyers for their original ideas (pitches and specs) and obtain writing assignments such as adaptation of a book. They help set up meetings with the buyer/employers, and negotiate the contract terms. For most agencies, however, writers are only part of their clientele. They represent talent in various sectors, such as film, TV, music, and theater. Within the film sector, they represent writers, directors, as well as actors/actresses. The biggest few agencies have more than a thousand clients, and have substantial bargaining power and influence in the industry.[12]

I focus on a few of the agency's roles that the industry people consider important: reducing information asymmetry between the writer and the buyer, monitoring the buyer's opportunistic behavior; and increasing the writer's bargaining power.

I first derive the effects of each role on the writer's choice of specing versus pitching based on the model developed in Chapter 3. The results are that different roles have a different, even opposite, impact on the sale stage, and that the effect of each role also depends on the writer's observable quality. I then use the data to help me evaluate the relative importance of each role.

In the empirical analysis, I focus on the effects of being affiliated with one of the five biggest agencies. The main reason is that having an agent or other types of intermediaries is more or less the norm in Hollywood. However, in terms of reputation capital and market power, the difference between being represented by one of these "big five" and not is greater than the difference between being represented by any intermediary and not.

I find that for writers with no major writing credits, an affiliation with a big agency increases the likelihood of a pitch sale by at least 11%. By contrast, for writers with

[12] What the industry call the "big five" are Creative Artists Agency, William Morris Agency, International Creative Management, United Talent Agency, and Endeavor Agency. In April 2009, William Morris and Endeavor merged. Thus, currently they are known as the big four.

some prior major work, such an affiliation has no significant impact on the likelihood of a pitch sale. These results suggest that a reputable agency is most effective in mitigating asymmetric information between buyers and writers of low observable quality, thus helping these writers overcome the barriers to selling early-stage ideas. However, for writers with some prior major work, I find that specs sold by writers with a big-agency affiliation are less likely to be released than specs sold by writers that are not. Interpreting using the theory model, this result suggests that for these writers, other agency roles, such as increasing the writer's bargaining power, may have greater weight, and this increases the writer's incentive to sell his idea at a later stage.

In Conclusion, I discuss a few managerial and policy implications that immediately follow the results.

The result on the access barriers faced by a relatively unknown seller (or a seller with a mediocre track record) when trying to sell an early-stage idea implies a few actions they can take. First, instead of wasting time and effort trying to obtain access to a buyer with only a half-baked idea, the seller might be better off developing the idea further. Second, engaging an intermediary is worthwhile if the benefits of selling the idea earlier outweigh the commission. It should be noted, however, that both these paths are subject to the seller's liquidity/time constraint and the access barriers to a reputable intermediary.

Comparative statics results on the access barriers also have a few policy implications. First, policies that limit the buyer's risk of potential legal disputes (e.g., claims of idea theft or IP infringement) might be important to lower these barriers. An example is a clear and enforceable release-form policy. Second, strengthening legal protection levels might benefit some sellers, while hurt others. The intuition is that the buyer's expected payoff from meeting the seller decreases when the protection level increases, and as a result, the barriers increase. An interesting case is the recent trend of strengthening contract law protection for idea sales across the states.[13] While benefiting sellers that

[13]Recent rulings by nine out of the eleven U.S. courts of appeals have established that idea-theft claims based on contract law are no longer preempted by federal copyright law, which means that abstract ideas underlying any written expression (such as a book) are protected as well, as long as a contractual relationship is established. The most prominent court case is the ruling by the Ninth Circuit court on Grosso v.s. Miramax in September 2004.

have either very good or very low observable qualities, the increased barriers to selling early-stage ideas would make intermediate writers worse off because they are now excluded from the early market.[14] Lastly, institutions that help reduce information asymmetry are critical for a market where small entrepreneurs are critical in supplying ideas. These institutions can be market intermediaries, or government and industry associations.[15]

This paper finds evidence that the seller has an incentive to develop better ideas further on his own. This has important implications for the buyer: First, it is important to take into account of the differences in the underlying qualities, in addition to the uncertainty levels, when evaluating ideas offered for sale at different stages; Second, moving first to solicit ideas from the seller might not make a difference because the seller still has the incentive to pitch mediocre ideas early, and to keep the best ideas to themselves.

The model also suggests that for sellers at some intermediate levels, the buyer prefers that the seller offers a more complete idea. This implies that the buyer might be better off if she can commit not to listen to early-stage ideas. An interesting anecdote about the scriptwriting world is from an article in *Variety* that quotes a sign outside producers David Zucker's and Jerry Zucker's office at Columbia Pictures: "Thank you for not pitching us your idea." Of course, the credibility of such a commitment might be limited especially when there is competition from rival buyers.

[14]See Proposition 5.3 in Luo (2011) for comparative statics results.

[15]For example, CORDIS provides information on technologies coming from E.U.-funded R&D programmes, as well as other online services that facilitate licensing, R&D alliances, and manufacturing and marketing agreements.

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