AALTO UNIVERSITY
School of Science
Master's Programme in Industrial Engineering and Management

TU-E1090 Research Assignment in Strategy and Venturing (5 cr)

The Effect of Long-term Institutional Shareholders on Acquisition Likelihood

Research plan

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Abstract

Literature in the field of strategy has shown that institutional shareholders have an effect on corporate behaviour. However, little is know of how long-term institutional shareholders affect the acquisition likelihood of organizations. This empirical study will explore the topic through quantitative analysis and aims to provide answers to this research gap.

Introduction

This section briefly introduces the reader to the research topic by describing what has been studied, which theoretical gap exists which motivates our research and what are our research questions.

As Michael Porter (1992) describes, in current volatile operational environment and the increasing pressure of globalization, decision on investment determine the competitive advantage of companies. Josept L. Bower (2001) reinforce the idea that we are in the middle of biggest merger boom of all time. According to Bower, companies make acquisition to extend into new products and markets and to roll-up competitors in geographically fragmented industries.

There has been lot of studies about M&A strategies and reasoning behind acquisition decision (Haleblian, 2009). Porter (1992) identifies there being external and internal determinants of investment choices. Furthermore, significant external attribute is the way in which company owners and their agents influence management behaviour in the firms whose shares they own. One of these kinds of agents according to Porter are institutional investors, which are pension funds, mutual funds and other money managers. What makes them important nowadays is their large aggregate holdings on several companies shares.

Some studies have been conducted of institutional shareholders impact on strategic decisions (Conelly et al., 2010) and different ownership structures on acquisition behaviours. However, current research is lacking of direct studies how institutional ownership impacts on acquisition likelihood. So there is a clear research gap. Heineman & Davis (2011) working paper published by Yale school of management, summarized very well why more research of institutional investors is needed. There has risen a deep concern “about the growing role of institutional investors in the public equity markets, both as to how they serve the individuals who invest their money in these institutions, and in the relationship between the investors and investee companies.”.

Motivated by the existence of this research gap, we formulate the following research question: How does long-term institutional shareholders affect organisations’ acquisition likelihood? The theory section will describe the relevant literature on the topic in more detail and provides our hypotheses.

Theory

Theoretical background

Our focus is on the relationship between dedicated institutional ownership (i.e., long-term institutional shareholders) and acquisition likelihood. The following subsections describe how we plan to structure our work on the literature review and theory building.

2.1. Dedicated vs. transient shareholders, what is institutional ownership?

In this section we will discuss literature that deals with what institutional ownership actually is.

Articles that will be discussed include at least:

- Porter, M. E. (1992). Capital choices: Changing the way America invests in industry. Journal of Applied Corporate Finance, 5(2), 4-16.
- Bushee, B. J. (1998). The influence of institutional investors on myopic R&D investment behavior. Accounting review, 305-333.

2.2. Dedicated vs. transient shareholders in the strategy literature

In this section we will go deeper on dedicated vs. transient shareholders in the strategy literature.

Articles that will be discussed include at least:

- Connelly, B. L., Tihanyi, L., Certo, S. T., & Hitt, M. A. (2010). Marching to the beat of different drummers: The influence of institutional owners on competitive actions. Academy of Management Journal, 53(4), 723-742.

- Zhang, Y., & Gimeno, J. (2016). Earnings pressure and long-term corporate governance: Can long-term-oriented investors and managers reduce the quarterly earnings obsession?. Organization Science, 27(2), 354-372.

2.3. M&A, shareholders and acquisition likelihood

In this section we will discuss the literature review on M&A and the sub-literature of acquisition likelihood.

Articles that will be discussed include at least:

- Haleblian, J., Devers, C. E., McNamara, G., Carpenter, M. A., & Davison, R. B. (2009). Taking stock of what we know about mergers and acquisitions: A review and research agenda. Journal of Management, 35(3), 469-502.

- Goranova, M. L., Priem, R. L., Ndofor, H. A., & Trahms, C. A. (2017). Is there a "Dark Side" to Monitoring? Board and Shareholder Monitoring Effects on M&A Performance Extremeness. Strategic Management Journal, 38(11), 2285-2297.

- Andriosopoulos, D., & Yang, S. (2015). The impact of institutional investors on mergers and acquisitions in the United Kingdom. Journal of Banking & Finance, 50, pp. 547-561.

Hypothesis development

The main goal of this research study is to explore the effect of long-term institutional shareholders on acquisition likelihood. In our work we focus on the frequency of acquisitions over time as a function of the proportion of long-term institutional shareholders. The following paragraphs show how we formulated our research hypotheses based on insights from previous research.

Bushee (1998) argues that dedicated institutional shareholders reduce the pressure on managers to focus on short-term earnings goals. Bushee's analysis focuses on R&D spending, but we hypothesize that the reduction in managerial myopia also leads to increased acquisition likelihood. Acquisitions generally result in a short-term decline in the acquiring firm's financials so greater shareholder stability should lead to more willingness to undertake M&A activities (Haleblian, 2009).

According to Connelly et. al. (2010) institutional shareholders interact with each other in order to influence strategic decisions and enhance the speed of decision making. They also argue that institutional shareholders are able to influence strategic decisions towards specific ends, while Bushee (1998) claims that having long-term institutional shareholders generally increase investments which may also benefit M&A.

Because the current body of research (we are aware of) does not provide a consensus on how long-term institutional shareholders affect acquisition likehood we formulate two contradicting hypotheses:

- *Hypothesis 1a*: Having long-term institutional shareholders decreases the number of acquisitions made by a firm.
- *Hypothesis 1b*: Having long-term institutional shareholders increases the number of acquisitions made by a firm.

Porter (1992) claims that in the United States institutional shareholders have very limited inside information about the company as well as very little influence to any company's decision makers while in some other countries like Germany or Japan significant institutional shareholders are often much more active and controlling in their relationship with the active management of the company. Thus we hypothesise the following:

- *Hypothesis 2*: The effect of having long-term institutional shareholders is moderated by policies and other country level factors of the acquiring firm.

In his research Bushee (1998) claims that different types of institutional shareholders have different effects on managerial myopia. Thus it may be that different types of institutional shareholders have also different effects on acquisition likelihood. Thus we hypothesise the following:

- *Hypothesis 3*: The effect on acquisition likelihood of dedicated vs other types of institutional shareholders is different.

Methodology

The units of analysis in this research are acquisitions. Our goal is to study whether there statistical support can be found for the hypotheses described in the previous section.

We plan to follow a longitudinal design in which we examine differences in acquisition likelihood or frequency of acquisitions across firms over time as a function of the level of long-term institutional ownership (f. ex. firms that have insignificant, average or significant long-term institutional ownership).

This is a quantitative study where we plan to use and combine several datasets. The SDC Platinum M&A dataset which covers acquisitions from the years 2005-2015 is a key source for us. We will look for additional data from other datasets (perhaps the Compustat Fundamentals and datasets for institutional ownership data). We will also use the institutional shareholder classification data from Brian Bushee. (TODO: Add proper references to datasets)

We plan to select the analyzed firms as a subset of the S&P100 index over the 10 year period from 2005-2015. The following paragraphs describe how we plan to approach the variables and measures.

We have identified several other factors which may influence acquisition likelihood but which are not relevant to the theory we have developed here. These have led to control variables that we incorporate in our regression models. First, the size of the firm likely affects its acquisition likelihood since acquisitions are a capital intensive action. We therefore introduce a control variable SIZE which is the average market capitalization of the firm during each quarter. Further, we consider the recent performance of the firm to be a potential factor in acquisition behavior and therefore introduce a control variable PERF which is defined as the ratio of the firm’s share price change over the last two quarters to the corresponding change in the overall S&P100 index. Finally, we propose that the overall macroeconomic environment influences acquisition behavior and suggest a variable MACRO which measures the overall market direction based on the performance of the S&P100 index in the prior two quarters.

For independent variables, we use an approach which is quite similar to Bushee (1998). First, we calculate overall percentage of institutional holdings (PIH) as the number of shares owned by institutional shareholders divided by the total number of shares outstanding for each of the selected firms over the selected time frame (2005-2015). This value is further subdivided into two separate PIH variables for different classifications based on the type of institutional shareholder. Shareholder classifications are determined using Brian Bushee's institutional shareholder classification dataset to divide the shareholders into two broad groups, dedicated shareholders (Group 1) and others including transient shareholders or quasi-indexers (group 2). Thus PIH_1 is the PIH for dedicated institutional shareholders and PIH_2 is the PIH for all other types of institutional investors. As the PIH values change over time, we represent each quarter during the analysis time frame as a single PIH data point for each firm and average these samples as needed for the different time slices analyzed.

The topic of interest in this study is acquisition likelihood from the acquirer's perspective, which we measure based on the number of acquisitions announced quarterly by each firm in the dataset, excluding announced acquisition deals which are later withdrawn. We choose the date announced rather than a later mark because this is the first public knowledge of serious progress towards a possible deal, and is therefore the first quantitatively measurable indication of a shift in management thinking with this dataset.

Schedule and milestones

Table 1 below describes the major events and milestones based on which we plan to organize our teamwork. Between each feedback session and following submission we plan to work in a steady rhythm with weekly meetings to synchronize our learnings and coordinate our efforts. Internally we will be exercising an iterative project management approach in which the weekly meetings form a backbone. In the meetings we will review the results of the previous week-long increment and plan the next while identifying and controlling impediments and challenges. We will inform the instructor if we feel we need additional guidance and/or support.

Table 1: Planned schedule with major events and milestones.

Date	Event	Description
2018-01-28 23:55	Submission of project plan	By this DL we have started to familiarize ourselves with the literature and datasets most relevant for the research assignment. We have also submitted a 3 page plan that describes a preliminary outline of the research we will conduct.
2018-02-01 14-15 (?)	Feedback session #1	During the feedback session we will clarify our plans to the instructor and receive ideas on how to improve our plan and our research process. We hope to also gain insight on how we should proceed with both the literature review and data collection and analysis.
2018-03-04 23:55	Submission of final draft	By this DL we have submitted our final draft which should demonstrate our outstanding capability to conduct quantitative research in the field of strategy and venturing. Our goal is that in this draft all sections would be in as good a state that we can do without feedback. The choice date is influenced by the travels of some team members in late March.
2018-03-08 15-16	Feedback session #2	Our goal for the second feedback session is to learn if and how exactly we should improve our final draft in order to guarantee us grade 5 from the research assignment.
2018-04-09 23:55	Submission of final report	By this DL we have submitted the final report that demonstrates our outstanding capability to conduct quantitative research in the field of strategy and venturing.
2018-04-16 8-16 (?)	Presentatio n session	During the session we will present our work and our results and receive feedback from the course instructors. We plan to provide a professional presentation.

Note: The first column contains fields with a (?) mark which indicates that this value is preliminary and subject to change.

Results

This section will be developed later. Some pointers as to what this section will be like:

- About 4 pages long
- Provide tables that summarize important findings
- Describe the results and their meaning verbally (eg. statistical significance)
- Describe how the results support the hypotheses

Discussion

This section will be developed later. Some pointers as to what this section will be like:

- About 3-4 pages long
- Discuss implications for research and managerial practice
- Discuss limitations of the study (eg. internal validity, reliability, ...)
- Discuss future research opportunities

References

Andriosopoulos, D., & Yang, S. (2015). The impact of institutional investors on mergers and acquisitions in the United Kingdom. Journal of Banking & Finance, 50, pp. 547-561.

Bower, J. (2001). Not all M&A are alike - and that matters. Harvard Business Review.

Bushee, B. J. (1998). The influence of institutional investors on myopic R&D investment behavior. Accounting review, 305-333.

Bushee, B. J. (2015). Institutional Investor Classification Data (1981 - 2015). Retrieved from http://acct.wharton.upenn.edu/faculty/bushee/IIclass.html

Connelly, B. L., Tihanyi, L., Certo, S. T., & Hitt, M. A. (2010). Marching to the beat of different drummers: The influence of institutional owners on competitive actions. Academy of Management Journal, 53(4), 723-742.

Goranova, M. L., Priem, R. L., Ndofor, H. A., & Trahms, C. A. (2017). Is there a "Dark Side" to Monitoring? Board and Shareholder Monitoring Effects on M&A Performance Extremeness. Strategic Management Journal, 38(11), 2285-2297.

Haleblian, J., Devers, C. E., McNamara, G., Carpenter, M. A., & Davison, R. B. (2009). Taking stock of what we know about mergers and acquisitions: A review and research agenda. Journal of Management, 35(3), 469-502.

Heineman, B. & Davis, S. (2011). Are Institutional Investors Part of the Problem or Part of the Solution?, Yale School of Management.

Porter, M. E. (1992). Capital choices: Changing the way America invests in industry. Journal of Applied Corporate Finance, 5(2), 4-16.

Zhang, Y., & Gimeno, J. (2016). Earnings pressure and long-term corporate governance: Can long-term-oriented investors and managers reduce the quarterly earnings obsession?. Organization Science, 27(2), 354-372.

Appendix

Notes and summaries of relevant research article by section

NOTE: This section includes several direct excerpts from the articles.

2.1. Dedicated vs. transient shareholders, what is institutional ownership?

Porter, M. E. (1992). Capital choices: Changing the way America invests in industry. Journal of Applied Corporate Finance, 5(2), 4-16.

- Porter describes institutional investors as pension funds. mutual funds and other money managers which representative and act as agents for individual investors.
- According to Porter these investors make up fair share of holdings of US companies' equity. Due to "legal constraints on concentrated ownership, fiduciary requirements that encourage diversification and strong desire for liquidity, there investors hold hundred small stakes of companies. However, they tent to hold stocks a short period of time. Thirdly, they have very limited access to companies inside information and make investing decisions based on just couple of factors. These drives investors to underinvest in some industries and allowing overinvestment in others.
- Porter summarizes that despite their large accumulated holdings, U.S. institutional investors do not have actual power on boards and real influence on management decisions such as acquisition decision.
- Moreover, Porter compares U.S institutional investors to German and Japanese. "Unlike the American systems, principal Japanese and German owners are driven not by the need to make quick decision on buying and selling stock for profit taking, but by the desire to assess the ongoing prospects of the company": In addition, they tend to hold significant shares for long periods and they have more information and decision power to the company and its management.

Bushee, B. J. (1998). The influence of institutional investors on myopic R&D investment behavior. Accounting review, 305-333.

- Definition of institutional shareholders.
  - "As defined by the SEC in Rule I3-f. institutional investors are entities such as bank trusts, insurance companies, mutual funds, and pension funds that invest funds on the behalf of others and manage at least $100 million in equity. Entities such as arbitrageurs, brokerage houses, and companies holding stock for their own portfolio (as opposed to in their pension funds) are not considered institutional investors by the SEC."
- In general, increased institutional shareholders increase R&D investment.
- In cases of special types of institutional shareholders with short term focus (high portfolio turnover), R&D investment declines.

2.2. Dedicated vs. transient shareholders in the Strategy literature.

Connelly, B. L., Tihanyi, L., Certo, S. T., & Hitt, M. A. (2010). Marching to the beat of different drummers: The influence of institutional owners on competitive actions. Academy of Management Journal, 53(4), 723-742.

Connelly et. al. (2010) explain the benefits of having institutional shareholders in situation of mergers and acquisitions. They claim, that institutional shareholders interact with each other in order to influence strategic decisions to specific ends and enhance the speed of decision making. Moreover, they are able to convince transient owners to pursue big strategic decisions such as M&A.

Main results:

- Institutional investors have divergent interests with respect to executive actions, and their influence extends beyond broad firm-level strategies and policies.
- Institutional owners may look to other institutional owners for guidance when they decide to endorse strategic or tactical competitive actions.

- Some institutional investors may persuade others to influence executives towards specific ends.
- Transient institutional owners may discourage strategic competitive actions, which limits the range of competitive options available to firms.
- Transient investors might use the threat of exit to pressure executives to consider only those competitive actions that will not result in short-term earning shortfalls.
- In competitive situations that require strategic actions such as a major acquisition between two companies, executives might benefit from presence of different institutional investors.
- Institutional investors may be able to convince transient owners to increase their support of strategic actions may help ensure that executives consider strategic actions more carefully.

Zhang, Y., & Gimeno, J. (2016). Earnings pressure and long-term corporate governance: Can long-term-oriented investors and managers reduce the quarterly earnings obsession?. Organization Science, 27(2), 354-372.

Abstract: Recent research has shown that managers in publicly traded companies facing earnings pressure—the pressure to meet or beat securities analysts' earnings forecasts—may make business decisions to improve short-term earnings. Analysts' forward-looking performance forecasts can serve as powerful motivation for managers, but may also encourage them to undertake short-term actions detrimental to future competitiveness and performance. To identify whether managerial reactions to earnings pressure suggest evidence of intertemporal trade-offs, we explored how companies respond to earnings pressure under different conditions of corporate governance that shape the temporal orientations of managers. Using data on competitive decisions made by U.S. airlines under quarterly earnings pressure, we examined the effect of earnings pressure on competitive behavior under different ownership structures (ownership by long-term dedicated investors versus transient

investors) and CEO incentives (unvested incentives that are restricted or unexercisable in the short term, versus vested incentives).

The results suggest that companies with more long-term-oriented investors and long-term-aligned CEOs with unvested incentives are less likely to soften competitive behavior in response to earnings pressure, relative to companies with transient investors and CEOs with vested, immediately exercisable stock-based incentives. Using a difference-in-differences (DiD) specification for stronger identification, we also found that firms respond to their rivals' earnings pressure shocks by increasing capacity and prices, particularly when those rivals do not have long-term-oriented investors and CEO incentives. The evidence is more aligned with the view that the pursuit of short-term earnings as a result of earnings pressure may be detrimental to long-term competitiveness

-> alternative explanation, reaction to rivals' act

-> long term decision = acquisition ??

2.3. Review on M&A

Following is a literature review on M&A and sub-literature of acquisition likelihood.

Haleblian, J., Devers, C. E., McNamara, G., Carpenter, M. A., & Davison, R. B. (2009). Taking stock of what we know about mergers and acquisitions: A review and research agenda. Journal of Management, 35(3), 469-502.

Abstract & keywords

Abstract: Scholars from multiple fields have shown increasing interest in the causes and consequences of mergers and acquisitions (M&A). Although this proliferation of research has the potential to significantly improve our understanding of M&A activity, absent is the necessary step of consolidating and integrating extant knowledge. Accordingly, this article develops a framework to organize and review recent empirical findings, principally from management, economics, and finance in which interest in acquisition behavior is high but also from other areas that have tangentially explored acquisition activity such as accounting and sociology. This article identifies patterns and theoretical gaps and provides recommendations for future research aimed at developing a more integrated M&A research agenda for management scientists.

Key points / notes / excerpts

- Although interest in mergers and acquisitions has generated considerable acquisition-related knowledge, the range of findings from these diverse areas lacks theoretical integration, which constrains scholars' abilities to synthesize notable contributions from each discipline.

- Typical findings from early studies suggested that acquisitions did not enhance acquiring firm value, as measured by either short-term or long-term performance measures. More specifically, acquisitions were often found to erode acquiring firm value and produce highly volatile market returns.

- Studies generally showed that acquisitions produce somewhat positive returns overall, but importantly, decomposition revealed that targets accounted for the majority of those gains, with acquiring firms contributing neutral or negative returns. That is, acquiring firms do not generally seem to benefit from acquisitions.

- This led to research on the antecedents of acquisitions, as scholars sought to uncover why firms acquired. However, a unified theoretical view is missing.

- Methods: Meta-analysis; Took all quantitative acquisition research papers from the accounting, economics, finance, management, and sociology literatures published between 1992 and 2009 and filtered out articles based on relevance and other criteria until 167 empirical articles remained. Then they coded, categorized and interpreted the research using their comprehensive theoretical framework which categorizes recent acquisition research into three broad areas: (a) antecedents, the factors that lead firms to undertake acquisitions; (b) moderators, internal and external factors that moderate acquisition performance; and (c) other acquisition outcomes (see figure below).

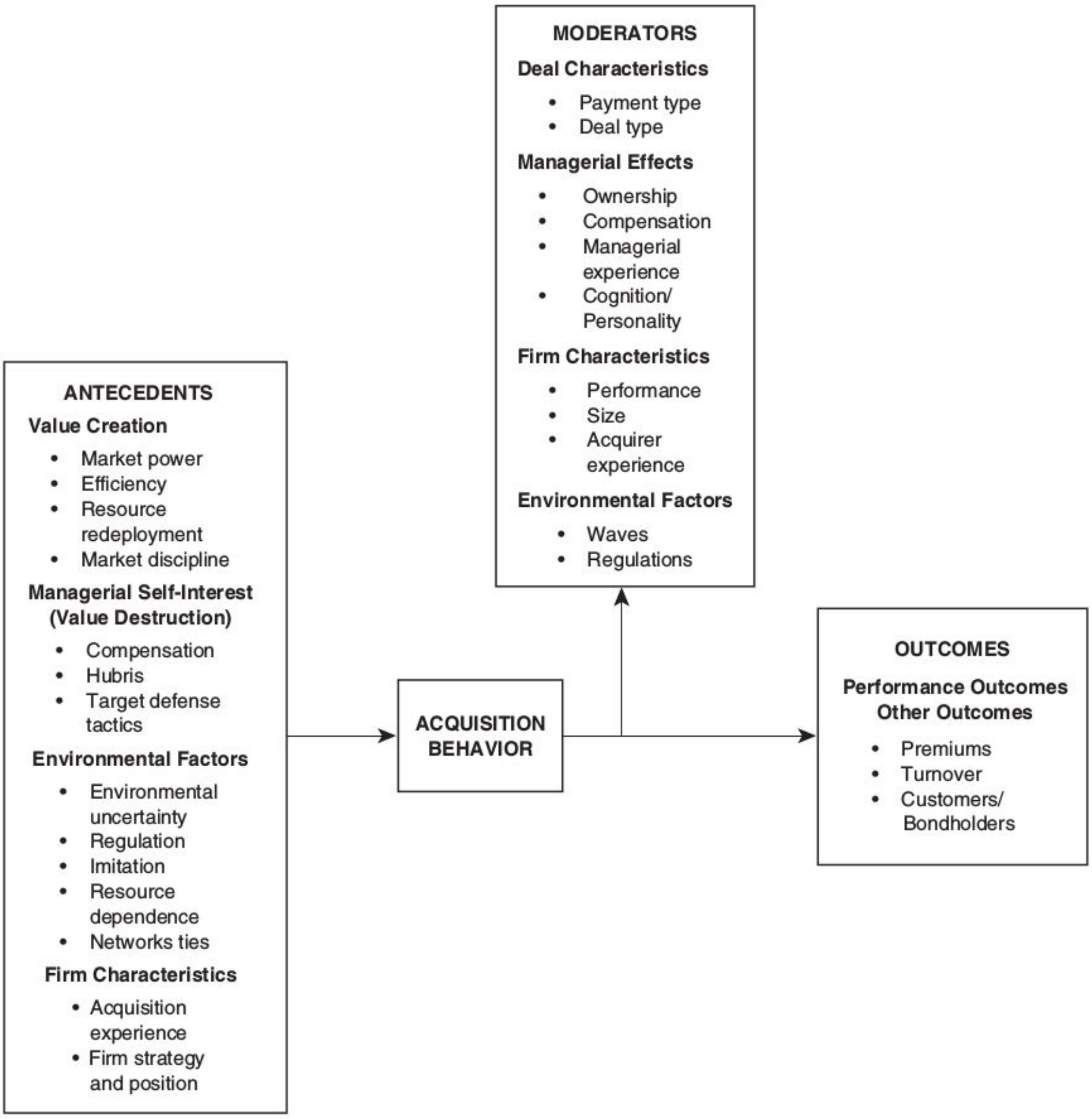

Figure: Mergers and Acquisitions Literature Overview

- Antecedents: Why Do firms Acquire?
    - Value Creation
        - Market power
            - Warrant for hypothesis: having fewer firms in an industry should increase firm-level pricing power
            - Limited evidence supports market power as an acquisition motive.

        - Efficiency
            - Idea: M&As should reduce the cost side of value creation;
            - Evidence is not so straightforward.
        - Resource redeployment
            - Idea: managers view horizontal acquisitions as a means of facilitating redeployment of assets and competency transfers to generate economies of scope.
            - There is evidence: Horizontal acquisitions often led to significant resource realignment between acquirers and targets; Acquirers extended their resources to include recent entries to the industry (acquisitons as innovation); Acquiring firms leveraged the innovation-oriented resources of target firms either by integrating those resources into the acquiring firm or by leveraging the innovative capabilities of the firm as an independent unit.
        - Market discipline
            - Idea: Acquisitions may be value enhancing when they are used to discipline ineffective managers; Firms managed by ineffective and overcompensated top managers become targets of takeovers made with the intention of corporate turnaround.
            - Evidence: CEOs of acquired firms are often dismissed after an acquisition has been completed; Target firm managers who were overcompensated prior to takeovers received reduced compensation after acquisition completion.
    - Managerial Self-Interest (Value Destruction)
    - Environmental Factors

        - Firm Characteristics
            - Acquisition experience
            - Firm strategy and position
- Moderators of the Acquisition–Performance Relationship
    - Deal Characteristics
    - Managerial Effects
        - Ownership and compensation
            - Idea: The agency-theoretic perspective suggests that executive equity and compensation influence interest alignment.
            - Evidence: Returns were highest at moderate levels of ownership where managers' interests were more aligned with those of shareholders, which resulted in lower bid premiums; Low and high levels were negative; CEO stock options exhibited a positive, linear influence on these returns. However, contradicting research showed that acquisition announcement returns were positively associated with higher stock holdings; however, stock ownership was not related to acquisition performance, suggesting that performance begets ownership rather than vice versa; Thus the evidence is overall mixed.
        - Managerial experience and cognition/personality
    - Firm Characteristics
        - Historical performance
        - Firm size

Notes and plans regarding various areas of the research

Sample and data collection

- Control variables
  - Size of company (acquisitions require capital, so larger companies probably do them more frequently regardless of ownership).
  - Free cash flow or other financial metrics.
  - Must consider relative size of acquisitions (after a very large acquisition, smaller ones may be less frequent).
  - Industry acquisition behavior.
  - Rival/competitor acquisition behavior.
  - Recent performance of the company, e.g. growing/declining/stable share price or other metrics may influence M&A behavior.
- Conceptualize - formulate and clarify broad theoretical ideas into more concrete "concepts" (e.g. "academic achievement").
  - For us this probably includes the definition of being a "long-term institutional shareholder" and any other theoretical concepts we use.
- Operationalize - give the details of how observations are made in the study (so that it could be reproduced).
  - Indicator: single observable measure (e.g. "whether students talk to teachers about studies outside class").

Measurement of constructs

- We will use archival records in the form of existing databases about company performance, M&A activities, and shareholders. From here we must come up with operational definitions relevant to our topic (e.g. census data -> "residential segregation").

Validation of measures

- Split-half method to determine reliability.
- Analysis of internal consistency within the data.