## Corporate Governance and Firm Innovativeness

**- Examining the effects of two governance arrangements on new product introduction**

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## *Three pillars of a quality paper*

- *Theoretical contribution*
- *Empirical rigorousness*
- *Contribution to practice*

➔There are no formal rules, only heuristics or strategies to yield such contribution.

➔So, what are the characteristics of papers that do not meet the contribution hurdle?



## *In a nutshell*

- In light of the risk-taking nature of new product introduction, this paper addresses the risk-alignment effects of internal governance and its context-dependent characteristics.
- In a sample of 201 Taiwanese firms, the study sets out to examine how internal governance, characterized by managerial ownership and board competence, shapes the outcome of new product introduction.
- Furthermore, a contingency view shows that such a universal relationship is conditioned by contextual munificence, including technological opportunity and organizational slack.

➔*Corporate governance may function as an enabling context conducive to aligning the risk differential, via incentive and monitoring, between principals and agents.*



## *The shape of an article*

- A paper should be written in the shape of an hourglass.
  - It begins with broad general statements,
  - progressively narrows down to the specifics of your study, and then
  - broadens out again to more general considerations.

## The sources of innovation

- The external factors (the technological and social contexts where firms operate.
- The organizational approach.
- While a number of studies have developed possible links between the organization and its capacity to innovate, they are mainly dissociated from corporate governance and silent on the issue of how the firm-level governance contributes to the generation of innovation.



## Risk differential as agency problem

- Innovations do not emerge in a vacuum, and one important influence on their success is managers' willingness to take risks, which is driven by the context of an organization.
- Whereas shareholders may prefer to adopt more risk in order to pursue growth opportunities as part of a portfolio of investments, managers may be more concerned with minimizing their exposure to risk because they are less able to diversify that risk when innovation fails.
- This divergence creates an agency problem manifested in the propensity of managers to pursue agendas that may be at odds with shareholder interests and preferences, including underinvestment in long-term projects, such as R&D for new product development.



## Prescription by agency theory

- The effectiveness of board monitoring is limited by potential information asymmetries in the relationship between a firm's management and the board.
- The agency perspective argues that principals should provide incentives to agents so as to reduce the agency costs arising from conflicts of interest and self-serving behavior on the part of agents.
- However, the offering of managerial incentives cannot thoroughly solve the problem of managerial risk aversion:
  - performance-linked incentives may confine management to short-term profits and overlook the long-term investment,
  - a downside risk of equity-based incentives may discourage managers to pursue value-added risk taking.



## Stakeholder theory & board competence

- As the well-accepted governance wisdom in the 1980s, agency theory conceives of the firm as a shareholder maximizing enterprise and board directors as shareholder guardian.
- Stakeholder theory emerging in the 1990s
  - the exclusive privileging of a certain type of owner's interest is not only ethically dissatisfactory but also infringes on economic efficiency
  - ST conceives of the firm as a wealth-creating team and its board of directors as impartial corporate coordinators.
- A competent board should fit into strategic activities, which are traditionally at managerial discretion, and direct managers' attention on sustained value-creation by pegging long-term rather than short-term performance to be the best scorecard.

## Contingent usefulness of two theories

- Both agency and stakeholder theories have been applied to the study of corporate governance, but a question remains as to their contingent usefulness.
  - As prescribed by agency theory, insiders should be provided with equity ownership to promote alignment of their interests with those of shareholders.
  - from the perspective of stakeholder theory, the board is supposed to play a role of corporate fiduciary by engaging in "strategic control" over management.



## Bridging the gap

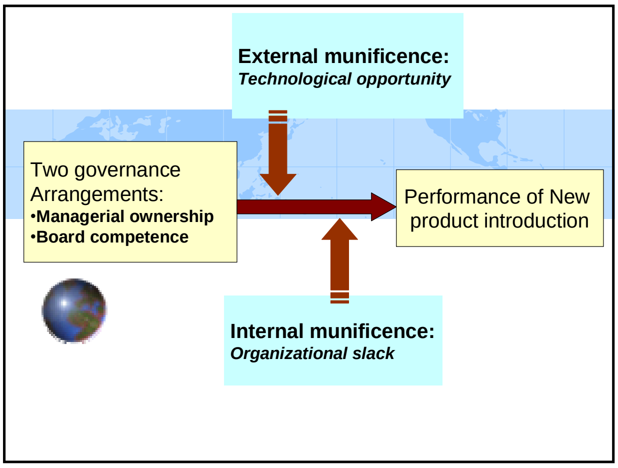
- The research objective of this study is to bring together two broad areas of study, corporate governance and innovation, in order to enhance our understanding of organizational perspective of innovation.
  - The attributes of innovation—localization, cumulativeness, firm-specificity and appropriability—imply that innovation requires sustained and focused managerial efforts.
  - A theory of corporate governance must also come to term with some risk-taking nature of organizational choices; *i.e.*, the effective governance will conduce to mitigating management inertia, enhance their risk preparedness, and subsequently come to a better performance of new product introduction.



## What is theoretical contribution?

- Authors must consider how their work contributes to theory and explicitly frame this contribution for their readers.
- Meaningful new insights or implications for theory must be present clearly, although these insights are able to develop in many ways, including:
  - falsification of conventional understanding,
  - theory building through inductive or qualitative research,
  - first-time empirical testing of a theory,
  - meta-analysis with theoretical implications,
  - constructive replication that clarifies the boundaries or range of an existent theory.





## When you build the hypotheses…

- Because most manuscripts contain hypotheses (qualitative research is often an exception), authors must be careful when building the theoretical logic in their hypothesis development.
- What is often missing in submitted papers is the specification of the *underlying theoretical mechanism or logic* that explains the relationships among a set of variables.
- One common mistake is to simply pile up previous empirical findings in an attempt to justify hypothetical links. Such a manuscript will fall short of the theoretical contribution needed in a quality paper



## Hypothesis development

- ***The agency perspective:* the effect of managerial ownership**
  - Convergence-of-interest
  - Entrenchment

  ***H1:*** *The relationship between managerial ownership and innovation performance is curvilinear; that is, innovation performance for new product introduction increases with managerial ownership at low levels (convergence-of-interest effect) and decreases with managerial ownership at higher levels (entrenchment effect)..*



- ***The stakeholder perspective:* the effect of board competence**
  - Competence of board directors are attuned to the concerns of a variety of stakeholders and conducive to directing managers' attention toward sustained value creation

  ***H2a:*** *The industry-wide and company-specific knowledge and experience of board members are positively associated with innovation performance.*

  ***H2b:*** *The commitment of board members is positively associated with innovation performance.*



- ***A contingency view* of the governance-innovation relationship**
  - Technological opportunity poses an element of external munificence on firms because it represents the extent to which the market accommodates new products or technologies.
  - Slack resources representing the resources readily available within the firm, acts as an internal bounty and permits greater experimentation than would be the case in a more resource-constrained organization.

***H3a:*** *Among firms subject to high technological opportunity (or slack), managerial ownership will be associated with better performance of new product introduction.*

***H3b:*** *Among firms subject to high technological opportunity (or slack), board competence will be associated with better performance of new product introduction.*



## *What is empirical rigorousness?*

- Articles may fail to meet the standard for a strong empirical contribution for a variety of reasons.
  - the use of *operational measures* that are not properly validated, or that do not appear to capture the constructs developed in the theoretical section of the paper (i.e., construct validity problems).
  - the use of *inadequate research designs* for testing the question at hand (e.g., designs with ambiguous/reverse causality, serious omitted-variable biases, or common method variance).



## *Data & Measures*

- Sampling plan & sample profile
  - Non-response bias
- Self-report survey process
  - Common method variance
  - Objective measurement of NPI
- Y: performance of NPI
  - the % of total annual sales that consisted of new products/services introduced over 2001~03.
  - New products were defined by either unprecedented performance features or familiar features that offer significant improvements in performance or cost that transform existing markets or create a new one.



- Explanatory variables:
  - Managerial ownership
  - Board competence
    - Professional knowledge and experience
    - Commitment
- Moderators:
  - Technological opportunity
  - Slack resource availability
    - Available, recoverable and potential slack.

- Control variables
  - Firm size
  - Firm age
  - Firm risk: Std of EPS
  - High-tech dummy: R&D intensity>5%
  - Industry-dummy: manufacturing/services
- Do features of Asian corporate landscape need to be controlled?



**Table 2. Results of the moderated hierarchical regression analysis**

| (N=201) | Model 1 | | Model 2 | | Model 3 | | Model 4 | | Model 5 | |
|---|---|---|---|---|---|---|---|---|---|---|
| *Control variables* | β | t | β | t | β | t | β | t | β | t |
| Firm size | .073 | 1.023 | -.035 | -.519 | -.044 | -.659 | -.092 | -1.733 | -.081 | -1.510 |
| Industry dummy | .125 | 1.789 | .129 | 1.504 | .116 | 1.834 | .069 | 1.370 | .072 | 1.433 |
| High-tech dummy | .147 | 2.103 * | .095 | 2.060 * | .087 | 1.379 | .032 | .642 | .037 | .736 |
| Firm age | -.153 | -2.139 * | -.031 | -.436 | -.004 | -.054 | -.030 | -.541 | -.040 | -.699 |
| Firm risk | -.021 | -.308 | -.048 | -.753 | -.036 | -.560 | -.015 | -.304 | -.015 | -.290 |
| *Universal approach* | | | | | | | | | | |
| Managerial ownership | | | -.098 | -1.442 | -.097 | -.343 | .216 | .653 | .152 | .445 |
| (Managerial ownership) $^2$ | | | -.220 | -3.445 *** | -.172 | -2.441 * | -.126 | -2.310 * | -.118 | -2.077 * |
| Board knowledge/experience | | | .300 | 4.387 *** | .427 | 2.610 ** | .094 | .574 | .165 | .953 |
| Board commitment | | | .218 | 3.250 *** | .366 | 2.314 * | .036 | .238 | .103 | .630 |
| Technological opportunity (TO) | | | | | .118 | 1.632 | | | .049 | .813 |
| Slack | | | | | | | .627 | 3.513 *** | .633 | 4.115 *** |
| *Contingency approach*† | | | | | | | | | | |
| Managerial ownership x TO | | | | | .274 | 2.103 * | | | .236 | 2.040 * |
| Board competence x TO | | | | | .019 | 1.166 | | | .046 | .987 |
| Managerial ownership x Slack | | | | | | | .045 | 1.189 | .038 | .975 |
| Board competence x Slack | | | | | | | .261 | 2.799 ** | .239 | 2.624 ** |
| *Adjusted $R^2$* | | .142 | | .237 | | .356 | | .378 | | .520 |
| *Model F* | | 2.769 * | | 6.314 *** | | 7.425 *** | | 7.904 *** | | 15.425 *** |
| *F for $\triangle R^2$* | | | | 6.440 *** | | 3.155 *** | | 3.396 *** | | 7.257 *** |



## *What is the contributions for practice?*

- What should a manager do differently in his or her organization after reading your manuscript?
- While practical relevance need not be direct or immediate in all cases, authors should discuss the potential implications of their work for present or future managers.
- If you cannot imagine a manager ever caring about your work, even after further development (by yourself or other scholars), your manuscript might not satisfy this criterion



## *Discussion on the contingent efficacy of internal governance*

- A rich environment of technological progress, viewed as a context for high discretion, renders managers more latitude over the course of innovative actions, and thus necessitates the managerial ownership as the incentives.
  - In the face of exploitable technological opportunity, managers in industries encountering high technological opportunity, such as new ventures in high-tech industries or fast-cycle markets, will align their own sense of well-being with organizational outcomes if the benefits of equity ownership can be realized through innovation-led growth.

- In a firm with abundant internal resources, considered a context shielding the organization from uncertainty caused by scarcity, managers are more willing to experiment and capitalize on the opportunity to innovate when they are under the surveillance of a competent board.
  - Firms with slack resources, perhaps large and well-established firms in mature industries or slow-cycle markets, need to build boards more capable of providing a counter-balance to management risk aversion.