

THE EFFECT OF MARKET AND INTERNAL FAILURES ON CAPABILITY SOURCING CHOICES

LAURENCE CAPRON
INSEAD, France

WILL MITCHELL
The Fuqua School of Business, Duke University

INTRODUCTION

Where do firms obtain new capabilities? This paper identifies drivers – including both market failures and internal failures – that influence when firms chose internal and external sources for new capabilities. Early studies examining internal and external sourcing stressed that failures in market institutions that govern inter-firm exchange create incentives for internal sourcing, where market failures can arise from both opportunism risks (Williamson, 1975) and coordination needs (Coase, 1937). In addition to market failures, problems that affect the ways that people work together within the firm also influence sourcing decisions. We refer to such problems as internal failures. Little research, though, has considered the combined impact of market and internal failures on firms' capability sourcing decisions and, in turn, the capability development performance that firms achieve as a result of those decisions. The first set of propositions discuss how market failures and internal failures influence sourcing incentives. We then argue that whether firms' choices align with the institutional failure incentives will affect the performance of their capability sourcing activities. The empirical analysis draws on a detailed senior management survey of 162 telecommunications firms operating in Europe, North America, Latin America, or Asia in 2000-2001.

BACKGROUND

Sourcing Modes

Internal sourcing refers to new capabilities that a firm creates by recombining its existing routines or creating new routines. Examples of internal sourcing include internal training, internal product development, and building new facilities. External sourcing means acquiring capabilities that exist outside a firm's boundaries from a third party. External sourcing can occur by one of three means (Chi, 1994): 1) purchase of a specific capability from a firm that possesses it (purchase contracts), 2) collaborative ventures that transfer capabilities and their underlying routines from one firm to another, and 3) acquisition of an entire firm or the part of the firm in which a capability resides. The study compares internal sourcing to a single external sourcing category, which includes the three external modes.

External Failures

We first consider how market and internal failures influence sourcing modes, and then turn to how a firm's conformance with the influences of institutional failures affects sourcing performance. We attempt to bring together and build on perspectives that sometimes ignore or talk past each other. Figure 1 depicts the framework that we develop in this section.

Figure 1 about here

Opportunism Threat. Market institutions are organizing mechanisms that arise outside a firm's boundaries and which guide the exchanges that a firm undertakes with external parties. Two literatures offer complementary arguments concerning how failures of market institutions affect mode choice. Transaction cost economics emphasizes potential opportunism as the primary driver of market failure in cases that involve idiosyncratic capabilities (Williamson, 1975). In this view, sourcing transaction-specific assets from external partners, whether through purchase contracts, alliances, or acquisitions often meets frictions due to difficulties in screening, trading, and transferring capabilities into the firm. Transaction costs also arise when firms fear uncontrolled leakage of capabilities to third parties (Teece, 1986). Several empirical studies support the argument that fear of capability leakage leads to greater use of internal sourcing (e.g., Monteverde and Teece; 1982; Anderson and Schmittlein, 1984).

Hypothesis 1a. The greater the opportunism-based market failures that firms face in order to obtain targeted capabilities, the more likely the firm will use internal sourcing for the new capabilities.

Coordination Need. In parallel with opportunism-based transaction cost arguments, the knowledge literature argues that market failures arising from high coordination requirements will cause firms to use internal sourcing (Spender, 1996). By coordination requirements, we mean the need for cooperation between providers and users in order to exchange and reconfigure capabilities. Organizations provide governance and socialization mechanisms for developing capabilities because they act as social communities, which create productive and administrative routines embodied in people and procedures (Kogut and Zander, 1992). These mechanisms help people overcome coordination-based market failures by facilitating the exchange of information that they need to recombine current routines and develop new routines (Foss, 1996).

Hypothesis 1b. The greater the coordination-based market failures that firms face in order to obtain targeted capabilities, the more likely the firm will use internal sourcing for the new capabilities.

Internal Failures

Capability Gaps. We begin with the prediction that a firm's tendency to source internally will decrease with the width of the gap between the firm's existing and targeted capabilities. That is, a firm must assess whether it possesses relevant internal skills that will support the development of a new capability (Leonard, 1995). In the resource-based view, firms tend to undertake internal sourcing when they estimate that their current capabilities provide the base needed to create new capabilities (Wernerfelt, 1984). Similarly, Cohen and Levinthal (1990) argue that firms tend to undertake internal changes that build on their existing capability to evaluate and utilize particular knowledge, which they refer to as absorptive capacity. Dosi (1982) points out that businesses tend to develop new capabilities in areas closely related to their existing technological expertise. Cuervo-Cazzura (1999) argues that firms develop capabilities internally once they have already achieved a competitive level close to that required for effective competition, and will seek externally when they face large competitive gaps.

Hypothesis 2a. The smaller the gap between a firm's existing capabilities and targeted capabilities, the more likely the firm will use internal sourcing for the new capabilities.

Social Conflict. Social conflicts are institutional failures that arise because a firm is a social community that faces frictions of governing capabilities internally. Firms that possess capabilities that would be technically relevant for a change sometimes do not use those capabilities to pursue the change owing to social conflicts..Social conflicts that inhibit internal changes arise from multiple sources, including internal competition, obsolescence of existing capabilities, cultural conflicts, mismatch of incentives, organizational change, and employee resistance. Potential social conflict can arise at both the individual and organizational levels. At the individual level, employees may need to learn new skills in order to develop new business capabilities, while the changes may cause power to shift to new people. Vulnerable employees and powerful vested interests are likely to reinforce existing routines and oppose path-breaking changes. At the organizational level, potential violation of corporate culture and established routines often dampens path-breaking internal change (Cyert and March, 1963; Oliver, 1997).

In the presence of social conflicts that would hinder internal sourcing, firms often turn to external sources of new technology. External sourcing of capabilities that would disrupt the firm's existing organizations provides a means of overcoming internal barriers to developing needed capabilities. The reason is that the firm will have less immediate need to attempt to adjust existing capabilities in the face of substantial internal conflict.

Hypothesis 2b. The less social conflict that targeted capabilities will cause with existing capabilities, the more likely the firm will use internal sourcing for the new capabilities.

Internal Sourcing Performance

If our predictions concerning sourcing decisions are correct, we expect most sourcing decisions to align with the internal and external institutional failures. However, firms typically face conflicting pressures that interfere with their ability to optimise on individual decisions. Thus, we expect misaligned choices to occur. In turn, we expect misalignment to lead to problems with internal sourcing. That is, we expect "conformists" to achieve higher performance than "deviants" in their internal sourcing. Anderson (1988) uses a similar approach to test the impact of boundary-choices on performance.

Hypothesis 3. The more a firm's internal sourcing choices conform to the influence of:

- opportunism-based market failures (H3a)
 - coordination-based market failures (H3b)
 - capability gaps (H3c)
 - social conflicts (H3d)
- the greater its internal sourcing performance.

RESULTS

Drivers of Sourcing Choice.

Our data consist of survey responses from 162 telecommunications firms operating in Europe, North America, South America, or Asia. The results support hypotheses 1 and 2. The presence of opportunism-based market failure raises the incentive for firms to undertake internal

sourcing (hypothesis 1a), as does the presence of coordination-based market failure (hypothesis 1b). Greater capability gaps, whether due to commercial or technical capabilities, raise the incentives for internal sourcing (hypothesis 2a). Greater potential for social conflict also raises the incentive for internal sourcing (hypothesis 2b).

Firms appear to heed both types of potential market failures when deciding whether to source internally or search externally for new capabilities. They are more likely to source internally when they face market failures from opportunism or coordination needs. These results are jointly consistent with the predictions of transaction cost and knowledge-based views of business organization. That is, the two views complement each other in their influence on sourcing choices, rather than act as substitutes. Firms also heed internal failures in their sourcing decisions. Firms facing technical or commercial capability gaps tend to search externally. Firms that would face high conflict in internal sourcing, which tends to arise independently of capability gaps, often search externally. The strong influence of the two forms of internal failures – capability gaps and social conflict – reinforces the argument that a theory of how firms search for new capabilities cannot simply focus on market failures, but must account for a broader set of institutional influences.

Performance Model

The results reject Hypothesis 3a concerning opportunism risks, while supporting Hypothesis 3b concerning coordination needs. That is, firms that make internal sourcing choices that are consistent with the coordination needs that they face (either internal for high coordination or external for low coordination) tend to achieve effective internal projects. By contrast, firms that emphasize opportunism threats as key drivers of internal sourcing do not benefit; instead, they generate non-significant negative results.

The results offer mixed support for the capability gap prediction of hypothesis 3c. The results support the commercial gap element of the prediction. The results do not support the technical gap element at statistically significant levels, although the coefficient takes the expected positive sign. That is, firms that turn to internal sourcing for projects with low commercial gaps relative to existing capabilities tend to fare particularly well. By contrast, firms that use internal sourcing for projects with low technical gaps do not achieve markedly high performance.

The results reject the social conflict prediction of hypothesis 3d. That is, firms that undertake internal projects despite the potential for high social conflict do not appear to pay an effectiveness penalty for doing so. Instead, the results are non-significantly negative, such that firms that emphasize projects that engender little conflict are slightly more likely to generate ineffective projects.

Unexpectedly, firms that undertake internal sourcing despite the potential for high social conflict do not appear to pay a penalty. We suspect that the reason is that some firms have learned how to manage conflict beneficially. That is, as well as having a potential for disruption, conflict creates the potential for taking new views of a problem and generating new insights for solutions. Firms that have learned how to take advantage of conflict, while limiting the potential harms, may well benefit by undertaking internal projects in conflict-laden environments. This result speaks to the need to take a balanced view on business constraints, by recognizing that a factor that may constrain change in some firms may actually facilitate change in others.

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Figure 1. Internal Sourcing Incentives: Theoretical Drivers

