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# Assessing the impact of knowledge management strategies announcements on the market value of firms

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ABSTRACT

Although there is much literature on the relationship between KM strategies and organizational performance, the benefit of KM strategies is not well understood. We addressed this issue by exploring how KM strategies influence a firm's market value using event study methodology. We evaluated the cumulative abnormal returns for KM strategies announced by U. S. firms from 1998 to 2003. Our findings supported the hypothesis that firms' announcements about their KM strategies provoked positive reactions in the market. More specifically, strategies that focus on either (i) knowledge reusability through IT or (ii) knowledge sharing through informal discussions among employees contributed to higher performance than strategies that emphasized both. This outcome empirically supported our argument that the emphasis on either tacit or explicit knowledge results in a better market value of the firm. Furthermore, the market's reaction to the announcement is dependent on the firm's industry classification. The findings of this study offer insights that may help managers maximize the market impact of their KM strategies.



## 1. Introduction

Organizations are increasingly undertaking KM initiatives and making significant investments in them. Furthermore, investors are paying more attention, when valuing a firm, to announcements concerning KM activities. For example, Lockheed Martin's announcement of their effort provided its employees with a centralized base that allows them to access the expertise of seasoned employees without constantly having to ask for help; this affected investors' evaluation of the firm, resulting in a positive cumulative abnormal return (CAR) assessed at about 4%.

Most organizations continue to make efforts to realize benefits using KM. However, despite their best efforts, it is not clear how KM enablers can be employed strategically. KM strategies are high-level plans that focus on providing the organization with the knowledge and capabilities needed to achieve its visions and goals. They provide the framework within which the organization can manage new ways of using KM. Furthermore, KM strategies outline KM processes required for managing knowledge effectively [25]. KM strategies have become a fundamental issue for many companies [1].

Several studies have categorized the different types of KM strategies that organizations may adopt. The emphasis of these studies has generally been on how KM strategies affect organizational performance. With a codification strategy, knowledge is stored in repositories systematically, while a personalization strategy implies person-to-person communication. We believe that companies undertaking either of the two strategies in isolation produce higher performance than companies adopting both strategies.

Although the concept of KM strategy is receiving increased attention, the literature primarily relies on case studies, anecdotes, and conceptual frameworks. Empirical studies remain few and far between. Moreover, among the few empirical studies that have explored KM strategies, the majority have focused on the relationship between KM strategies and non-financial performance. These studies have not addressed the effects of KM strategies on financial performance. Understanding what performance gains firms can receive from KM strategies is essential before they can implement KM strategies. However, previous studies have not provided a way for executives to understand the true benefits that can be achieved from KM investments.

We examined the impact of KM on a firm's perceived market value. This was pursued by employing an event study to assess the impact of KM strategies announced by firms on the market value of the firms. Event study methodology uses change in market value to measure the market's response to a variety of announcements, such as KM system implementation. Positive fluctuations in the stock market as the result of firm's announcements reflect the benefits that the market expects the implementation to contribute to the organization's value.

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## 2. Literature review

A review of prior KM research uncovered key enablers for successful KM in organizations; these included human, technical, and organizational resources. The studies have shown how KM enablers affect organizational performance. For example, Sabherwal and Sabherwal [21] examined the effects of contextual factors on CAR associated with IT-based KM announcements by adopting event study methodology. The results of their study highlighted the need for managers to consider the specific circumstances of their firms in deciding whether IT-based KM efforts would be appropriate.

However, only a few researchers paid attention to understanding the relationship between KM strategies and organizational performance empirically, owing to the difficulty inherent to the assessment of KM strategies and their effects on organizational performance. They can be classified into three categories: (i) financial, (ii) non-financial, and (iii) both. Illustrative studies in each of these categories are listed in Table 1.

The studies in the first category measure the impact of KM strategies on organizational performance by using financial indices like return on sales (ROS), return on assets (ROA), and return on equity (ROE). Pai [18] empirically investigated 20 Taiwanese integrated circuit (IC) design firms from 1997 to 2002, and categorized them into discoverers, discretionists, external learners, internal exploiters, and overall creationists – emphasizing both learning from external sources and exploitation from internal sources. It was found that the internal exploiters were the best performers, while the discoverers were the worst in terms of ROA and ROE.

The second category examined the relationship between KM strategies and non-financial performance such as effectiveness, efficiency, and innovativeness. Choi and Lee [4] examined 54 Korean companies and categorized their KM strategies into passive, system-oriented, human-oriented, and dynamic. The dynamic strategy – focusing on both knowledge reusability through IT and knowledge sharing through informal discussions among employees – was found to result in higher performance. Keskin [13] divided KM strategies into explicit- and tacit-oriented and investigated the relationship between KM strategies and organizational performance. He found that KM strategies had a positive effect on organizational performance, and that the impact on performance was higher with the explicit-oriented strategy than with the other. Schulz and Jobe [24] developed four categories of KM strategies – codification, tacit, focused, and unfocused – used by multinational corporations in the U.S. and Denmark. Empirical analyses suggested that the focused strategy was superior to the others. They also indicated that different kinds of organizational knowledge required matching forms of codification to increase subunit performance.

The third category compared and analyzed organizational performance depending on KM strategies involving both financial and non-financial performance. Ordonez de Pablos [17] attempted to identify how KM strategies affect organizational performance. She applied Bierly and Chakrabarti's typology of generic KM strategies to analyze a cross-section of Spanish firms. A significant relationship between KM strategies and non-financial performance was found. However, the ROA used to measure the financial performance of the firms demonstrated that the firms' performance was not influenced by the KM strategy adopted. Table 1 presents these studies in terms of KM strategy categories, organizational performance, suggested KM strategy, and the research findings.

From these studies, some interesting inferences can be drawn. First, empirical researchers agree that tacit- and explicit-oriented strategies are central to the KM strategy of an organization. Even when some studies have investigated other factors, they described KM strategies basically along tacit and explicit dimensions, reflecting their KM focus.

Second, guidelines for choosing the right KM strategies are unclear. Although many conceptual studies have shed light on guidelines for employing explicit- or tacit-oriented strategies, they are not consistent. Some attempt to strike a balance between them,

**Table 1**
A comparison of previous studies.

| Researcher | KM strategy categories | Organizational performance | Suggested KM strategy | Findings |
|---|---|---|---|---|
| Financial performance | | | | |
| [18] | Discoverer; discretionist; external learner; internal exploiter; overall creationist | Return on asset (ROA), return on equity (ROE) | Internal exploiter | Internal exploiter is the best performer while discoverer is the worst performer; discretionist is the largest and most stable KM strategy in Taiwan's IC design firms |
| Non-financial performance | | | | |
| [4] | Passive; system-oriented; human-oriented; dynamic | Compared to key competitors; overall success; market share growth rate; profitability innovativeness; business size | Dynamic | Dynamic strategy results in higher performance. Human- and system-oriented strategies do not show any difference in terms of organizational performance |
| [13] | Explicit-oriented; tacit-oriented | Compared to key competitors; overall success; market share growth rate; profitability innovativeness; business size | Explicit | KM strategies have positive effects on firm performance; the impact of explicit-oriented KM strategy is higher than the tacit-oriented one on firm performance |
| [24] | Codification; tacitness; focused; unfocused | Relative to overall performance; subunit performance over the last 5 years | Focused | Focused strategies are superior to the other strategies; no significant difference between codification and tacitness; different kinds of knowledge require matching forms of codification |
| Hybrid performance (financial + non-financial) | | | | |
| [17] | Loner; exploiter; explorer; innovator | Financial: return on asset (ROA)<br>Non-financial (compared to key competitors): leadership; future perspectives; global response to competitors; new product launch success rate; global success; profitability profit increasing rate; sales increasing rate; perceived ROA | Innovator | Significant relationship between KM strategies and non-financial performance. Financial performance of firms is not influenced by KM strategies that the firm adopted |