In today’s competitive environments, managers must continually recreate their firms, drawing new knowledge from both internal and external sources. The starting point for such changes is dynamic leadership and highly capable people throughout the organisation. However, even the best and brightest among us need to choose modes of change that suit a particular context, and then manage the change process in a way that suits these modes. This article outlines the four primary modes for changing businesses: internal development, discrete resource exchange, inter-organisational alliances, and business acquisitions. Our research, along with that of our colleagues, suggests that these four change modes suit different change contexts, each offering unique advantages as well as raising particular risks. In addition, each change mode organisational processes and incentives that fit the mode the firm has chosen to gain new knowledge.

Table 1 summarises our core framework. We start by assessing internal development, which is the first mode that people usually consider when they recognise the need for change. This assessment serves as a useful benchmark for analysing the progressively more complex external modes, including discrete resource exchange, alliances, and acquisitions. A comparative analysis of the various modes highlights the main trade-offs involved in selecting modes. In practice, of course, it is common to combine some or all of the modes in order to make necessary changes.
Internal development
Change via internal development involves building on existing resources, such as technical skills, production processes, marketing systems, and managerial expertise. Internal development is most feasible if a firm already possesses the needed resources and must "simply" recombine these resources to implement the desired change. A common example is using an existing distribution system in one market to sell an existing product, typically after refining product features and production techniques to suit the new market. Another example is developing an incrementally different version of an existing good or service to sell in a current market segment.

The key advantages of internal development are speed, coordination, and protection from competitors. First, internal development offers a quick way of undertaking changes when a firm possesses the relevant resources, because its people already have substantial knowledge and understanding of the situation. Second, the shared knowledge and common communication “code”, although often taken for granted and may be unnoticed within the firm, helps ensure coordination of the change activities. This coordination is particularly important when changes involve the active, ongoing participation of many people and functional areas. Consequently, a key organisational process supporting change through internal development is cross-functional coordination. Effective cross-functional coordination creates communication channels, providing people who have different skills and responsibilities with the ability and motivation to work together. Third, internal development also helps protect the proprietary value of change activities, because existing resources and new resource combinations stay within the firm. Hence, internal development offers the potential to both protect existing resources and develop new proprietary resources.

The downside of internal development is that it is often costly and difficult to develop resources that are new to an existing repertoire. Cost issues arise because internal development requires irreversible commitments for new resources that have uncertain value. These and other uncertainties can result in powerful inertia, leading in turn to a general unwillingness or inability to envision and enact change outside of currently-accepted arenas. Moreover, breaking through this inertia is difficult because internal development often suffers from what institutional
economists refer to as "low-powered incentives." Because individual change agents in a firm rarely benefit from the full value of a change, managers cannot rely on economic incentives to offset the natural reluctance of employees to overturn the status quo.

Overcoming reluctance to change is the key incentive issue for the internal-development mode. It is rarely possible to replicate the "high-powered incentives" of full ownership that arise in external exchanges. However, the closer that salaries, bonuses, and promotions are tied to change activities and outcomes, the more people will commit to the change and the cross-functional work required. We refer to these ties as change-focused incentives. Change-focused incentives provide rewards for successful change outcomes, as well as for participation in change activities. Change-focused incentives must address the contributions of both individuals and cooperative groups. An organisational culture that promotes experimentation and change can inject supportive non-economic incentives. Nonetheless, since radical change is almost always more difficult to achieve through internal development than through external modes, firms often turn to one of the external modes, which we examine next.

**Discrete resource exchange**

Changing via discrete resource exchange involves acquiring the specific resources needed to undertake a change. Such exchanges commonly involve new hires, equipment, and business systems. Discrete resource exchange is most appropriate when an active market exists for the needed resources, providing ample opportunities to evaluate available alternatives and negotiate reasonable terms.

Discrete resource exchange is the simplest of the external change modes and the first mode firms should consider when searching for resources outside the firm. Discrete resource exchange allows a firm to target specific resources, focus resource acquisition expenditures, take advantage of specialised suppliers, and limit the need for extensive coordination.

However, discrete exchange is not a panacea. Several types of “market failures” often limit the effectiveness of this change mode. Market failures due to asymmetric information arise when a partner is concerned that the other party might take advantage of its information. Market failures
due to bilateral lack of information arise when both parties lack critical information. Market failures due to institutional illegitimacy arise when a firm lacks sufficient credibility in a market to attract necessary resources. An example of market failures due to problems of institutional legitimacy arose in recent discussions with several telecommunications companies that are transforming their corporate client businesses. Managers of the companies told us that they would prefer simply to hire people with the needed skills for their new businesses. Unfortunately, the companies cannot always attract the people with the technical and market skills they want, even if they offer high salaries and benefits. Consequently, the firms either have attempted to change internally, slowly developing the skills of existing employees, or have allied with or acquired other businesses that possess the needed skills.

Even when a potential market for the needed resources exists, discrete exchange may not work if buyers and sellers of resources cannot agree on terms of exchange, either because of asymmetric information or bilateral lack of information. An example in which both types of information-based market failures occur arises when there is substantial uncertainty about the costs and implications of extracting and transferring a needed resource. Consider the case of a firm purchasing a distribution system from another company for entry into a new market. This exchange requires separating the system from the original firm’s activities and adapting it to the purchaser’s products and customers. The extraction and adaptation process may be slow and difficult, requiring substantial coordination between seller and buyer. Furthermore, this ongoing coordination can raise concerns about the level of dependency created between the firms, and whether the relationship will be managed equitably. When such information-based market failures arise, simply attempting to exchange the resources discretely, without providing longer term coordination and protection mechanisms, will often fail.

Two processes are particularly important to effect change via discrete resource exchange: external search systems and internal integration systems. External search systems identify the best available resources, whether the resources are physical assets, business systems, or people with skills that best suit the needed change. In part, external search systems also help a firm learn that a change is necessary. In our view, though, most firms know when they need to change, because they learn quickly about competitive changes through contact with customers, suppliers,
competitors, and through the many forms of business media. What is much more difficult than simply recognising the need to change, is creating search systems that help to identify and acquire the resources firms need for the changes. The most successful external search systems are those that develop linkages with knowledge bases that lie well outside existing activities.

Internal integration systems are critical complements to external search processes. Simply identifying and obtaining needed resources is only the beginning of a change process driven by discrete resource exchange. Success demands that new resources be effectively integrated with existing resources. Examples of internal integration systems include individual and group training, as well as the ongoing cross-functional coordination mechanisms we described for internal development.

The need for external search and internal integration systems also creates a need for additional incentive systems, which must complement the change-focused incentives for internal change. Indeed, the change-focused rewards for discrete exchange must include responsibility and compensation for search and integration activities. A particular issue to watch for in designing a reward system is the “Not Invented Here” syndrome. If employees, particularly in technological areas, are rewarded primarily for new internal developments, then they are unlikely to initiate or co-operate with effective external modes of change.

**Inter-organisational alliances**

Inter-organisational alliances are the third mode of change. Inter-organisational alliances involve many forms of relationships, ranging from short-term licenses for individual products to complexly interwoven joint ventures, partnerships, and research consortia. Alliances may involve two or more firms, or relationships between firms and social organisations such as universities and government agencies. Alliances are most likely to be effective when the resources you need for a change face a moderate degree of market failure.

Alliances offer several strengths as a mode of change. First, alliances allow firms to share development costs and other costs of changes, so long as the change activities create resources that more than one of the partners can use. Second, alliances offer both short-term and long-term
access to resources that are embedded in other organisations, because alliances allow the partners to create inter-organisational coordination mechanisms for using existing resources and creating new resources. This inter-organisational coordination is especially important when both/all partners must change their existing resources to achieve needed changes at either firm. Alliances also offer the potential for creating protective mechanisms that extend well beyond the simple hands-off market contracts available for discrete resource exchange. In addition to simple contracts, alliance partners can undertake equity investments in the alliance or each other, create forums for resolving disputes without litigation, or otherwise credibly commit to adjust terms of the agreement in an equitable way. Such protection mechanisms reinforce the intrinsic trust in each partner's good intentions.

A third potential strength of alliances is their flexibility, as firms can turn back from a disappointing change attempt more easily than with an internal change mode. However, it is important to remember that alliance activities rapidly create a substantial degree of irreversible business commitment. Moreover, trying to “pass off” risks to an alliance partner without appropriate compensation is rarely effective.

Alliances also generate substantial challenges. First, coordination confusion may arise between partners, either because the parties have conflicting strategic objectives or because they fail to understand each other’s needs. Second, internal conflicts can arise when employees whose work is affected by alliance activities do not buy into the objectives for the alliance. Third, alliances invariably create some risk of proprietary loss, because a firm is committing its resources to activities that involve another party with strategic autonomy. Even if a firm selects a trustworthy partner, describes needed coordination systems, encourages internal buy-in, and creates contractual and organisational protection mechanisms, some risk of inter-firm confusion, conflict, and proprietary loss will remain. Such risks become increasingly strong as market failures rise.

Effective use of the alliance mode requires a mixture of the processes and incentives that internal development and discrete resource exchange need. Other key alliance processes include partner search, inter-firm coordination, internal commitment, and loss protection systems. Partner search
systems provide identify potentially trustworthy allies with needed resources and determine appropriate initial conditions for an alliance agreement. Inter-firm coordination systems involve careful attention to the formal and informal means by which people from the allied parties work together, exchange information about general objectives and specific actions, and learn about each others' capabilities.

The internal conflicts that alliances generate prompt the need for internal commitment systems and loss protection systems. Effective internal commitment systems emphasize extensive communication of both the objectives of the alliance and the opportunities that the alliance will create for existing units and people. The systems must then realign incentives accordingly. Creating loss protection systems, on the other hand, involves identifying the points at which you may lose proprietary information and market opportunities to your partner. You can then specify contractual terms and organisational commitments that will limit the potential losses. Close attention to loss protection is important both at the beginning of an alliance and as it evolves, disclosing unexpected opportunities and risks.

**Business acquisitions**

Business acquisitions are the fourth change mode. Business acquisitions involve purchases of entire corporations or business units. Acquisitions become increasingly attractive when market failures increase beyond a level that can be worked out in an alliance. Acquisitions provide a quick way to obtain an extensive set of new resources, while offering control over integration and protection of the resources needed to undertake a change.

However, acquisitions can create substantial disadvantages. Out-bidding other potential acquirers, for example, can drive the price of an acquisition much higher than anticipated. Even more importantly, post-acquisition integration costs often far outweigh even the most optimistic expectations of pre-acquisition analysts. Vast amounts of money and time can be spent on extracting and adapting resources, eliminating unwanted resources from the target business, and disposing resources that you no longer need in your existing business. The notion of the "winner's curse" commonly arises in discussions of acquisitions, as the successful buyer
discovers the true difficulties and costs of post-acquisition integration. Moreover, as with internal
development, acquisitions face the issue of low-powered incentives.

Nonetheless, despite their costs and difficulties, acquisitions are a critically important means by
which firms change. Indeed, this may be the only feasible way of changing when firms need
rapid access to a complex set of resources that would take a long time to develop internally and a
level of business integration an inter-organisational alliance cannot achieve.

As in the case of alliances, business acquisitions call for a mixture of the processes and
incentives needed for internal development and discrete resource exchange, as well as additional
processes and incentives. The two key acquisition processes are pre-acquisition search systems
and post-acquisition reconfiguration systems. Pre-acquisition search systems identify relevant
targets and determine appropriate prices. Unfortunately, this pre-acquisition process is often the
main focus of acquisition activity, leading many firms to struggle with the post-acquisition
process. Post-acquisition reconfiguration systems must identify needed resources and then co-
ordinate the redeployment of resources to and from the target and acquiring businesses. In
addition, they must identify unneeded resources in both the target and acquiring business and
find the most valuable new uses for them, and either apply the resources to new business
opportunities or divest them. A critical point here is that successful change via acquisition
typically requires substantial reconfiguration of both target and acquirer to overcome the costs
and difficulties of acquisition. Consequently, acquisition reconfiguration must focus on both the
target and acquiring businesses, for resource redeployment and resource divestiture.

As with alliances, acquisitions require internal incentives alignment. Alignment involves
identifying and rewarding the changes that you want from new employees coming from the
target firm. Realignment of incentives also extends to existing employees, who may need to
change their activities to combine with the resources that the target has provided. Far too many
acquisitions fail to realise the full benefits of change activities because employees from the target
and acquiring businesses continue to view themselves as members of their original organisations,
and to act as though they still work for independent organisations, often for many years after
"integration" supposedly has occurred.
Summary
We have described four modes of change, their advantages and disadvantages, and the processes and incentives needed to support change in each mode. The relative weight of the advantages and disadvantages depends, of course, on the competitive environments in which you operate, the characteristics of your business, and the changes you face. Nonetheless, our contact with business students and managers has convinced us of the power of analysing the specifics of a particular change context within the more general framework proposed here.

We end by reiterating a point we made earlier. Successful change requires recognition of the need to change and an organisational commitment to the change. We believe that recognition is the easy part; managers recognise most critical changes quite readily, as their competitive environments begin to shift. Identifying appropriate change modes and then committing to change implementation is much harder, particularly in large and complex business organisations. Managers who take a systematic approach to assessing the change modes that best suit their change context and creating processes and incentives to suit the modes they choose will be the successful change agents of tomorrow.

Background research


<table>
<thead>
<tr>
<th>Change mode</th>
<th>Superior change context</th>
<th>Mode advantages</th>
<th>Mode risks</th>
<th>Key processes</th>
<th>Key incentives</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Internal development</strong></td>
<td>Relevant resources exist within the firm</td>
<td>• Speed</td>
<td>• Irreversible commitments</td>
<td>Cross-functional coordination</td>
<td>Change-focused individual and group rewards</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Coordination</td>
<td>• Path dependence</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Protection</td>
<td>• Low-powered incentives</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Discrete resource exchange of</strong></td>
<td></td>
<td></td>
<td>• Limited availability</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>people and physical assets</strong></td>
<td></td>
<td></td>
<td>• Limited coordination of external exchange</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Limited protection of ongoing exchanges</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Inter-</strong></td>
<td><strong>organizational alliances</strong></td>
<td>• Limited availability</td>
<td>• External search</td>
<td>• Search rewards</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>alliances</strong></td>
<td>• Limited coordination of external exchange</td>
<td>• Internal integration</td>
<td>• Integration rewards</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>for resource acquisition</strong></td>
<td>• Limited protection of ongoing exchanges</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Business</strong></td>
<td><strong>acquisitions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>for resource acquisition</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 1. Change modes**

- **Internal development**
  - Relevant resources exist within the firm
  - Speed
  - Coordination
  - Protection
  - Irreversible commitments
  - Path dependence
  - Low-powered incentives
  - Cross-functional coordination
  - Change-focused individual and group rewards

- **Discrete resource exchange of people and physical assets**
  - Active market for new resources
  - Low cost & low confusion via targeted resource acquisition
  - Limited availability
  - Limited coordination of external exchange
  - Limited protection of ongoing exchanges
  - External search
  - Internal integration
  - Search rewards
  - Integration rewards

- **Inter-organizational alliances**
  - Moderate market failure for resource acquisition
  - Shared costs
  - Quick access to complex resources
  - Hands on inter-organizational coordination
  - Partially retractable commitments
  - Bilateral protection
  - Coordination confusion
  - Internal conflict
  - Proprietary loss
  - Partner search systems
  - Inter-firm coordination
  - Internal commitment
  - Loss protection
  - Aligned partners' incentives
  - Aligned internal incentives

- **Business acquisitions**
  - High market failure for resource acquisition
  - Extent of resource acquisition
  - Depth of integration
  - Protection
  - High cost
  - Slow integration
  - Low-powered incentives
  - Pre-acquisition search systems
  - Post-acquisition reconfiguration systems
  - Aligned internal incentives of new employees and existing employees