Late to the Game: Assessing IT Integration Risk After the Acquisition Target has Been Identified

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Abstract

This article introduces a framework for assessing IT integration risk in acquisitions. We illustrate the framework’s merits for the management of high-risk acquisitions and identification of low-risk acquisitions with the experience of Trelleborg AB, a global industrial company with acquisitions as integrated components of its corporate strategy. Based on the insights gained from Trelleborg, we provide lessons for CIOs in assessing and managing IT-related risk in acquisitions after the acquisition target has been identified.

1. Introduction

Acquisitions of companies and business units have become important tools of corporate growth strategies. Appropriately executed, acquisitions enable growth in scale or scope, create opportunities for future business, and give access to important resources. In 2013, the value of mergers and acquisitions worldwide rose to US$2.91 trillion, distributed over 37,212 deals [3].

IT integration is the second most frequent reason for acquisition failure [2]. Accenture and McKinsey reported that 45–60% of the expected benefits from acquisitions are directly dependent on effective IT integration [2, 9]. The combined organization cannot function effectively and leverage business synergies until the IT of the acquired business unit is integrated with the acquirer’s existing IT [11]. In addition, research has shown that companies with stronger IT integration capabilities are more successful in creating value from their acquisitions than their peers [10]. For the CIOs of acquiring companies, acquisition IT integration presents a critical management trial.

However, although IT integration (referring to integration of hardware, software, data, and related practices) is essential for the realization of the business synergies that motivate an acquisition, only 24% of companies include IT in the due diligence before the acquisition [2]; and if they do, IT is often introduced very late in the due diligence process with limited possibilities for impacting on how the deal is done. This paper contributes to our knowledge on reducing the IT integration project risks of a new acquisition—which IT executives often do not have a chance to assess prior to a public acquisition announcement.

An example of a late CIO notification occurred at Trelleborg AB, Sweden, whereby Trelleborg decided to expand its presence in the industrial hose industry by acquiring the French specialty hose manufacturer, Dynaflex. The CIO was informed about the deal only as it was about to happen:

“One week before the deal was signed, our sales manager came to me saying that we were about to acquire Dynaflex. I asked him, ‘What about IT? Do we need to support them on day one, or how do we do it?’ ‘Good question, I’ll get back to you on that!’ he replied. A few hours later he came back saying that they decided that the seller would keep the IT alive for six months. By then we had to have them over on our platform. Could we do that? How should we do that? he asked.”

Between 1996 and 2011, Trelleborg AB made 77 acquisitions and developed into a global business with 22,000 employees. Trelleborg was transformed from a diversified conglomerate to an industrial group focused on polymer technologies. However, for pragmatic reasons including legal limitations, time constraints in the acquisition review process, and the uncertainty in which deals eventually materialize, IT has frequently been introduced late in the due diligence process. Despite this, Trelleborg learned how to conduct an IT risk assessment at a later stage. Over time, Trelleborg gained the reputation of being a skilled acquirer that frequently obtained important business benefits from its acquisitions.

In this paper we draw on research on acquisition IT integration and the experiences of Trelleborg to develop an Acquisition IT Integration Risk Assessment Framework. The developed framework presents four risk drivers: novelty, integration extent, integration method, and time pressure. The intended use of the

1 This paper reports on the practical implications of the study of Trelleborg. The theoretical analysis is published in [5].
framework is twofold. First, in the event of an acquisition it can be used to evaluate and manage the risk drivers associated with the IT integration to help realize potential business benefits, and each of the drivers identified can be managed to reduce the potential impact. Second, it can be used early on to identify low-risk acquisitions where IT integration will not impede business benefits realization. This identification reduces contractual requirements that lower the transaction costs for both acquirer and vendor, and limits the need for contingency plans.

In the next section we develop the Acquisition IT Integration Risk Assessment Framework. We identify risk drivers and strategies to manage these risk drivers. Using the acquisition experiences of Trelleborg, we illustrate the effects of inappropriate risk assessment in a high-risk acquisition, the value of managing risk in a high-risk acquisition, and the advantages of establishing that an acquisition is low risk early on. Finally, we summarize the lessons learned.

2. Risk Assessment

Success or failure in the IT integration with acquisitions is typically a matter of how much resource and time are needed to complete the necessary IT integration. The literature on acquisition IT integration identifies three principle risks associated with it: overspending, value destruction, and delay of business benefits (see Table 1) [5, 8]

Table 1. Acquisition IT integration risks

<table>
<thead>
<tr>
<th>Risk</th>
<th>Description</th>
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<tbody>
<tr>
<td>Overspending</td>
<td>IT integration will be achieved eventually, the question is how much resource needs to be spent on getting there.</td>
</tr>
<tr>
<td>Value destruction</td>
<td>Replacing IT that is unique and critical to the success of the acquired unit may limit the value of the acquisition.</td>
</tr>
<tr>
<td>Benefit delay</td>
<td>The combined organization cannot start to benefit from potential synergies until IT integration is completed.</td>
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Overspending can arise as the result of applying an incorrect IT integration strategy that has to be revised, rebuilding resources where an existing resource could have been reused, or using expensive consultants for tasks that the acquirer’s own IT organization could have handled. Overspending may in the worst case offset business benefits.

The risk of value destruction is primarily associated with the method chosen to conduct the IT integration project. One common IT integration method is, in part or in full, to replace the target’s IT systems with the IT systems of the acquirer. This is an attractive method because the acquisition instantly becomes integrated with the acquirer. However, if the acquired unit derived substantial competitive advantage from a retired IT system, this method for IT integration leads to value destruction.

Delays in the IT integration process to evaluate options, gain access to competencies, correct mistakes, or rebuild critical IT resources lost in the transition lead to the delayed realization of business benefits.

Acquisition IT integration risks are contingent upon four common risk drivers identified in the literature (discussed in detail later) and observed in the Trelleborg cases: novelty, integration extent, integration method and time pressure (See Table 2).

- **Novelty** refers to the acquirer’s experience and/or access to existing or outside knowledge to address the IT integration.
- **Extent** refers to how much information and business processes need IT integration.
- **Method** indicates that some business benefits require IT integration methods that propose higher levels of uncertainty than others.
- **Time** pressure and the limited room for maneuver moderate what is accomplishable in the short term, given need.

Table 2. Risk drivers

<table>
<thead>
<tr>
<th>Driver</th>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Novelty</td>
<td>Design novelty</td>
<td>The organizational knowledge of how to design an acquisition IT integration project.</td>
</tr>
<tr>
<td></td>
<td>Implementation novelty</td>
<td>The organizational knowledge of managing and implementing an IT integration project.</td>
</tr>
<tr>
<td>Extent</td>
<td>Process scope</td>
<td>The number of business processes that have to be IT integrated.</td>
</tr>
<tr>
<td></td>
<td>Data intensity</td>
<td>Data intensity of business processes that have to be IT integrated.</td>
</tr>
<tr>
<td>Method</td>
<td>New development</td>
<td>How much new IT development is necessary to complete the strategy.</td>
</tr>
<tr>
<td></td>
<td>Business disruption</td>
<td>The extent to which business processes are disturbed and dependent on the IT integration strategy.</td>
</tr>
<tr>
<td>Time pressure</td>
<td>Internal pressure</td>
<td>Timeframe within which the seller supports the acquisition. Internal pressure for synergy realization.</td>
</tr>
<tr>
<td></td>
<td>External pressure</td>
<td>Stock market demand for realization of synergies.</td>
</tr>
</tbody>
</table>

2.1. Risk drivers

2.1.1. **Novelty** refers to the acquirer’s experience and/or access to existing or outside knowledge to address the IT integration. For a successful acquisition IT integration, two tasks need to be accomplished: the design of the IT integration, and the implementation of the designed IT integration [4, 11]. Designing the IT integration includes understanding the extent of
integration required, the method required to realize potential business benefits, and the timeframe available. Implementing the IT integration requires different competencies, depending on the extent of the integration and the method chosen. Naturally, different technical skills and understanding of existing IT systems are required for redeploying IT systems than those required for carving out systems or the development of new systems.

There are two principal sources of the knowledge and skills needed to address an acquisition IT integration challenge: (1) the acquirer’s own organization, and (2) external sources, such as consultants [4]. Companies that frequently make acquisitions tend to get better at it over time through learning. Formal learning occurs in the form of guidelines, checklists, methods, and documentation from previous acquisitions. Informal learning surfaces through practice development, the personal experience of people involved in the integration, organizational structures, and through the reuse of their own IT setup.

Beyond the in-house competence in integration, consultancies provide another source of knowledge and skills. For completely novice acquirers, consultants may provide a source of expertise necessary for planning and managing the entire IT integration. However, acquiring companies that are more frequent acquirers tend to rely less on external sources of expertise. By letting their internal staff plan and lead acquisitions, the learning experiences stay within the organization and can be utilized the next time.

2.1.2. Extent. IT integration extent refers to what needs to be integrated with IT in an acquisition. If there is a large scope of business processes to integrate (high extent) there will be more risk than if there are few business processes to integrate (low extent). Also, the data intensity of the processes contributes to the extent of the challenge, because more data need to be transferred [5, 7].

Three factors form the answer to the question of what to integrate: prospective business synergies, future IT costs, and the acquired unit’s dependence on unique IT. The concept of synergy is essential for understanding the rational reasons why companies make acquisitions. Synergy in this context is defined as what is occurring when two units can be run more efficiently and/or more effectively together, rather than apart. Synergistic effects motivates the acquisition, and consequently the IT should be integrated to the extent that it is necessary to enable synergistic effects to be realized. If synergistic effects are estimated to be in sales, then IT support for sales needs to be integrated.

Regardless of the synergistic effects for business, there might be IT cost reasons to replace the target’s IT systems with the IT systems of the acquirer. Doing so will reduce future maintenance costs, which logically will be lower if only one customer service system has to be maintained instead of two. The condition for cost-based replacement is that it does not wipe out any competitive advantage at the point of acquisition.

2.1.3. Method. IT integration method refers to how to integrate the IT of the acquisition with the acquirer’s existing IT. The potential methods are associated with varying levels of complexity, since higher degrees of complexity represent more uncertainty, equating to greater risk. Methods that preserve existing IT systems and leave existing business processes undisturbed are less complex and less risky.

The five methods, rip and replace, bolt-on, sculpt, combine, and start over, each come with specific business implications (see Table 3). Consequently, there are situations when the acquirer has to venture on a complex integration project with high risk. The five methods are in a continuum from low to high complexity. What determines complexity is the level of new IT development (hardware, software, and related practices) required, and the degree to which the strategies may disrupt ongoing business and informational processes.

The rip and replace method is the strategy that comes with least complexity. This is because you can use what you already have to support the acquisition, and once you have integrated the acquisition it will be complete. From day one you can start benefiting from all the business synergies that motivated the acquisition. However, the condition for being able to employ a full rip and replace method is that all the business processes of the acquisition can be supported by the acquiring organization’s existing IT. The risk is that a rip and replace strategy introduces “worst practice” into the previously superior business processes of the acquisition.

The bolt-on method is the second least complex strategy, conforming essentially to the same logic as the rip and replace strategy. While the bolt-on method is easy to pull off, there is still a risk of destroying value in the target by the replacement of IT systems. The additional challenge rests on the identification and integration of IT unique to the acquisition target that does not have a match in the acquirer’s IT. If this is done correctly, it may avoid the destruction of value within the acquisition. The downside of bolt-on strategies is in the long term—continually bolting on new IT over time can create a highly heterogeneous IT infrastructure that is expensive to maintain.

The sculpt method seeks to deal with the risk of “worst practice” by presenting the business processes of the acquirer to the acquisition and asking the
question: “Can you improve these processes?” If the answer is “yes,” this starts the process of identifying the IT supporting the specific processes and how the IT works. Then, that IT functionality is rebuilt in the acquirer’s IS. The advantage of this is that the outcome is a homogenous IT infrastructure instead of a patchwork. The limitation of this method is that it is only suitable when the acquisition presents best practice in a very limited set of processes, otherwise the carving demands much resource. Also, there has to be a full match between the acquirer’s and the target’s IT; if this is not the case, the sculpt strategy has to be combined with the bolt-on strategy.

The combine method is relatively easy to perform when the combination can be made by carving out specific IT from the target and replacing the corresponding IT in the acquisition. However, the strategy becomes complicated when the combine method develops into a combination of equals. Besides often becoming a highly political process, the result is a complex patchwork of interdependent IT that originally was not supposed to work together.

The start over method implies a complete redevelopment of IT systems to support the combined organization. A more moderate challenge would be the redevelopment of the IT systems to support a specific business unit within a larger organization. History tells that large-scale IT development projects are both expensive and uncertain.

### 2.1.4. Time pressure.

Time pressure is the influence of the integration timeframe on the realization of IT integration. Because completed IT integration is a prerequisite for enabling most of the synergistic effects, IT management typically faces high internal pressure to complete IT integration as soon as possible [6]. However, there is also external pressure from the seller, if the acquired unit is divested from a multiple business, and from the diffuse “market” [8].

Everything else being equal, fast IT integration activates the synergistic effects motivating the acquisition and has a positive financial impact. However, there is at least one very good reason why an acquirer might want to postpone an IT integration project: if a substantial IT platform upgrade is in sight, the IT integration could be included in that platform change. IT integration projects are frequently very expensive, sometimes reaching $100s of millions. Logically, the acquirer who is moving to a new platform in a few years’ time might consider avoiding having that expense twice.

In minor acquisitions, the acquired unit is frequently acquired from another large firm that is divesting a part of its business. This type of pre-acquisition arrangement affects the need for rapid IT integration, because the divesting firm is likely to be unwilling to support the transferred business. Typically, unless the critical IT systems are specified in the contract, the vendor’s project manager will be unwilling to devote resources after the transfer contract has expired. In this way, standalone businesses are less risky acquisition targets because they present no natural deadline for the IT integration project [1].

The stock market also plays a role in deciding when to integrate. “The market” expects synergistic effects to be realized within a short timeframe after the acquisition deal [8]. Therefore, the pressure is high to finalize IT integration, which can lead to “quick fix” strategies that are sub-optimal in the long run. However, by understanding that some synergies will not be substantiated until the next IT platform update, these benefits can be excluded in the material made

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### Table 3. Complexity and Business Consequences of IT Integration Methods

<table>
<thead>
<tr>
<th>Method</th>
<th>Description</th>
<th>Complexity</th>
<th>Business impact/tradeoffs</th>
</tr>
</thead>
</table>
| Rip and replace | The target’s IT are retired and replaced by the acquirer’s existing IT. Data from the target’s IT are converted and transferred to the acquirer’s IT. | Lowest     | - Destroys IT-related capabilities in target.  
  - Limited applicability.  
  - Risk of establishing “worst practice.” |
| Bolt-on     | Retains some of the target’s IT, but the target is largely supported by the acquirer’s IT. This leads to partial standardization with some common IT shared between the acquirer and target. The remaining systems are bolted on to the acquirer’s IT platform. | Low        | - Limitation in scale-based synergy realization.  
  - IT infrastructure may over time grow complex. |
| Sculpt      | Most of the target’s IT is replaced by the acquirer’s IT, but specific IT is carefully selected, carved out, and made the new standard in the merged organization. This would be the strategy if the target has superior IT-enabled business processes. | Medium     | - Destroys IT-related capabilities in target.  
  - Only applicable when the acquisition can be fully supported by the acquirer’s IT.  
  - Can establish best practice. |
| Combine     | A selective and potentially political process by which the acquirer’s and acquisition’s corresponding IT are evaluated. For each process the best solution is picked and made standard in the whole combined organization. The different IT systems are bridged by interfaces. | High       | - Complex infrastructure with high maintenance cost and growth constraints.  
  - Often a political process.  
  - Can establish best practice. |
| Start over  | Necessary if neither the acquirer’s nor the target’s IT supports the business of the combined unit. New IT functionality has to be developed. This is frequently costly and practically difficult, given the time pressure to realize synergistic effects post-acquisition. | Highest    | - Expensive and uncertain.  
  - No limitations to what can be done. |
public to investors. These additional synergies are instead communicated as gains from the IT platform update, which motivates that investment.

3. Trelleborg AB: Assessing and managing IT integration risk

In the mid-1990s, Trelleborg AB launched a new corporate strategy termed “concentration and expansion.” Trelleborg was at that time a diversified organization concentrated in the Nordic countries. Divestment of operations that were considered non-core put it in a strong financial position, enabling focused growth in businesses of advanced polymer technologies. The target for average growth in these areas was 8–10% annually over an economic cycle. From 1996 to 2011, organic growth was supplemented by 77 acquisitions of complementary operations.

Trelleborg became a global industry group with businesses based on processed polymer materials. In 2011 the group was structured in four divisions (Sealing Solutions, Wheel Systems, Engineered Systems, Automotive) and had 22,000 employees in 44 countries. Sales rose to €3.4 billion in 2011, generating a profit (EBIT) of €280 million.

During its acquisition program, Trelleborg encountered a heterogeneous set of IT integration challenges, addressed by an equally divergent set of solutions, ranging from small rip and replace integrations done in months to a complete rebuilding of business units’ IT systems that took years to implement. Below, we present three of Trelleborg’s acquisitions (Table 4). The cases are selected because, among Trelleborg’s 77 acquisitions, they most clearly illustrate how acquisition IT risk drivers can be identified and managed (or not managed):

- The acquisition of Kléber illustrates the effects of a poor risk assessment in a high risk acquisition.
- The CRP acquisition illustrates how a high-risk acquisition can be managed if identified early on.
- The Dynaflex acquisition illustrates the advantage of establishing that an acquisition is low risk.

### Table 4. Key figures for the three acquisitions

<table>
<thead>
<tr>
<th>Unit</th>
<th>Acq. Year</th>
<th>Itg. Year</th>
<th>Price (€m)</th>
<th>Seller</th>
<th>Business</th>
<th>Sale (€m)</th>
<th>Unit emp.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMP/Kléber</td>
<td>1996</td>
<td>2006</td>
<td>40</td>
<td>Michelin (FR)</td>
<td>Industrial hose</td>
<td>60</td>
<td>750</td>
</tr>
<tr>
<td>Dynaflex</td>
<td>2004</td>
<td>2004</td>
<td>15</td>
<td>Manuli (IT)</td>
<td>Specialty hose</td>
<td>15</td>
<td>50</td>
</tr>
<tr>
<td>CRP Group</td>
<td>2006</td>
<td>2009</td>
<td>100</td>
<td>Barclays (UK)</td>
<td>Offshore equipment</td>
<td>100</td>
<td>500</td>
</tr>
</tbody>
</table>

Note: Acq. = acquired; Itg. = integration; emp. = employees.


Early in its acquisition experience, Trelleborg acquired Kléber to build a scale-based business in the hose industry. The corresponding unit in Kléber was four times larger than the one in Trelleborg. Trelleborg expected economies of scale to be achieved in production, sales, and distribution by combining the existing hose businesses into the new Trelleborg Industrial Hose (TIH) unit.

“In terms of production, the two units ... were very compatible...... Overlapping was also limited in geographical terms. Trelleborg was more Nordic, more niche. Kléber was more continental, had a larger product range, and had a wider distribution network.” (Hose Business Sales Manager)

While the due diligence team recognized the potential for extensive IT integration, as Kléber’s supporting IT platform was completely standalone, fully operational, and sourced to a third party, the due diligence process found no immediate deadline for the IT integration project. The limited risk assessment determined that IT integration was not considered a major threat to the acquisition value. Consequently, in the short timeframe of the due diligence phase and under pressure from the contract negotiations, IT was given little weight.

The limited attention to the risk assessment of acquisition IT integration created barriers to business value in the Kléber acquisition. Pre-acquisition, Trelleborg’s hose business was supported by an IT platform based on a highly customized implementation of the Movex enterprise resource planning (ERP) system, and the IT platform was well aligned with the niche-based business strategy. Following the rip and replace method, it was decided to port Kléber onto Trelleborg’s Movex-based platform. However, the proposed action was cancelled in 1998. The Movex platform used by Trelleborg’s hose business was customized to meet the requirements of the old hose business’s niche strategy. It did not support the scale-based operations of the combined unit.

“After two years they came to the conclusion that it would take about 1000 working days to develop the new Movex system to support the Kléber integration … It couldn’t be justified with future savings.” (Hose Business Operations Manager).

With the new millennium approaching, Trelleborg faced another challenge as the Bergounix system was not expected to make the shift until the year 2000. Despite the external and internal pressure to realize the promised benefits, Trelleborg understood that profound changes were required and that the acquisition required a start-over method to materialize the acquisition benefits. The hose business was restructured to capture scale advantages, and production was moved from Trelleborg to the former Kléber site to capture...
production-based economies of scale. Single functional heads were appointed in a centralized cost-focused structure. To gain time and quickly start reaping minor benefits, Kléber initially kept its Bergounix-based platform, using a temporary bolt-on IT integration method.

Later, the Bergounix platform, which was expensive to maintain and extend, was replaced by a central, standard Movex system. The old Trelleborg hose business was ported to the new Movex system in 2005 to complete the start-over integration method. Costs were lowered and Trelleborg’s hose business became profitable.

“In 1999, three years after the acquisition, we lost €3 million. The ROA was negative, while for the Trelleborg Group the standard was 15%. We have improved every year since then and last year we had a ROA of 17%.”
(Hose Business Operations Manager)

It is a possible that Trelleborg could never have completely avoided the problems encountered in the Kléber acquisition. The unrecognized pre-conditions of the acquisition were that neither the pre-existing IT platform of the existing hose business nor Kléber’s IT platform could support the global, scale-based hose business. However, the two-year detour activated by a poor risk assessment led to overspending. In addition, the total of ten years until the full realization of business benefits did not impress shareholders or market analyzers. Trelleborg learnt its lesson, as illustrated when it faced a similar challenge in the acquisition of CRP.

3.2. CRP: Managing a high-risk acquisition

In 2006, Trelleborg completed the acquisition of CRP. CRP was a profitable business with operations related primarily to hydraulic systems for the subsea sector of the oil and gas business. Trelleborg already had some business in this segment, but the CRP acquisition tripled its presence in the segment.

Notified late on, the CIO of the Engineered Systems Division became responsible for the IT integration of CRP.

“I learnt about the deal only weeks before it took place. This is how things go normally. You cannot prepare for everything; you discuss and plan for numerous deals simultaneously. … I don’t think anyone can foresee which deals that will come about in the end.”
(Trelleborg Engineered Systems CIO)

Although similar to the Kléber acquisition in its eventual solution to IT integration, the IT integration of CRP began differently. This time risk assessments, including detailed judgments on novelty and extent, led Trelleborg to understand that they had to rebuild the IT systems supporting the business in hydraulic systems to fully realize the economies of scale.

“We discussed the ERP and … knew that we had to replace it over time. In that way it was simple.”
(Trelleborg Engineered Systems CFO)

When announcing the acquisition, Trelleborg only stated the expected synergies that it was possible to realize without full IT integration. This reduced the external pressure. Eventually, after further inspection of the state of CRP’s IT systems, it was decided that a full start-over project was required.

Trelleborg’s IT function started replacing the outdated ERP of CRP with a Movex implementation. When this was completed after two years, the corresponding unit from Trelleborg (Trelleborg Viking) was ported onto CRP’s new Movex platform and scale benefits were realized by 2009. Thus, IT integration was reached by an IT start-over project. CRP is an example of the advantage of managing the risk in the acquisition of a high-risk IT integration. The acquisition of Dynaflex presented next illustrates the advantage of an assessment of risk management in a lower risk acquisition.

3.3. Dynaflex: Benefiting from identifying low risk

Recovering from the Kléber acquisition, Trelleborg made a second acquisition in the hose industry, acquiring the small niche-player, Dynaflex. Trelleborg and Dynaflex both had hose production in central France. However, their core customers and products were independent of each other. Trelleborg manufactured and serviced a wide range of hose products, while Dynaflex specialized in the production of hydraulic hoses for the oil and petro-chemical industries, where it enjoyed a reputation for technological leadership.

By 2004, Trelleborg’s hose business had become a highly profitable business unit with a low-cost position in the industrial hose market, and Trelleborg wanted to capitalize on growth. The Dynaflex acquisition introduced new production that could enable more effective use of Trelleborg’s distribution network. The intention was to grow Dynaflex’s business by launching its products in markets where Trelleborg had a strong position.

When Trelleborg’s IT management received a last minute question about whether Trelleborg could integrate Dynaflex’s IT within six months, it had to understand the acquisition IT integration challenge. Given the proposed six-month timeframe for the acquisition IT integration project, Trelleborg made an assessment of the four risk drivers. First, Trelleborg assessed the IT integration extent. Trelleborg had a scale-based business of composite hoses for low and
medium pressure. Dynaflex was a small, efficient, and flexible producer of hydraulic hoses for high-pressure applications. The production processes for the two types of hoses are fundamentally different, and it is not possible to combine these. Completely absorbing Dynaflex into Trelleborg’s routines for composite hose production would destroy the efficiency and flexibility of the acquired unit. However, the acquisition was motivated by the sales expansion opportunity for Dynaflex to utilize the sales organization and with a better negotiating position on the factor market.

“For each process, we investigated ‘How are they doing it today?’ and ‘How should it be done in the future?’” (Trelleborg Systems Integrator)

Understanding the synergies expected from the acquisition, Trelleborg could make an initial assessment of what business processes it was necessary to IT integrate. Trelleborg understood only a limited number of processes (mainly purchases, sales, and economic reporting) needed to be IT integrated, and that these processes where relatively low in their data intensity (compared to real-time data sharing of production, scheduling, and logistics). Consequently, the risk from the extent of the acquisition IT integration was low. Second, Trelleborg’s IT management considered which IT integration method would be required. Dynaflex was a small, efficient business with flexible production. Replacing that with Trelleborg’s central solution would destroy the very reason for the acquisition of the business.

“We had been the same team for 3-4 years. We knew what worked. That was why they asked me.” (Trelleborg Systems Integrator)

Therefore, a complete rip and replace strategy would damage the acquisition value. However, given that the only part of Dynaflex that needed to be preserved was in the production, a bolt-on strategy was deemed possible. The rest of Dynaflex’s IT could be migrated to Trelleborg’s platform to enable shared purchasing, sales, and economic reporting. Consequently, the required IT integration method was also low risk. Together with the low extent risk, this gave a low complexity to the IT integration challenge.

In addition, because the people responsible for the IT integration of Dynaflex had recently both made another, larger acquisition, and had also completely rebuilt their IT platform, the IT management knew that the IT organization was capable of facing an acquisition IT integration challenge of this type. Further, the IT management knew that it could call on the same team that had just recently successfully integrated 13 production units in the centralization project.

Final summary: Trelleborg’s IT management asked themselves 'How is the acquisition risk profile? (e.g. high or low risk) and 'What are the remaining risks? (e.g. low extent risk, low method risk, low novelty risk)' before an acquisition. The Trelleborg case shows that acquisition IT integration risk can be assessed and managed even after the acquisition decision has been made. However, risk management is contingent on a systematic assessment of the risk drivers and their potential impact. As illustrated, lack of or incorrect IT risk assessments can have devastating effects on business benefits realization from the acquisition. A quick assessment of IT integration risk right after IT is notified may reveal that the emerging risk profile is unacceptable, given the business prospect.

Identifying that an acquisition is low risk with respect to IT integration gives an opportunity to reduce delivery expectations and leave out costly contingency plans. However, there may be situations where the acquirer finds itself facing a high-risk IT integration project. In such a case, the acquirer’s IT management should air these concerns to the rest of the management team and ask them to consider if taking that risk is justified. Questions for use in an risk assessment and related propositions on how to manage the risk drivers are found in Appendix B.
be IT integrated. The logic behind this is straightforward. Integrating IT is typically costly and adds risk to the whole project. It is costly to migrate data between different systems, to make connections between systems, to adjust to new ways of doing business, and to educate users in the new IT systems. Besides that, replacing the target’s IT systems might destroy the value of the business unit. Consequently, it is not desirable to integrate too many IT systems.

Trelleborg learned to assess all its acquisitions individually with regard to what should be IT integrated and what should not. The general acquisition strategy was to buy business units with an attractive resource that Trelleborg could develop further. Contingent on how the resources should be developed within Trelleborg, the group typically either left the IT of the acquired company undisturbed, fully absorbed the acquisition’s business processes into the IT of an existing Trelleborg business unit, or made a selective choice of specific processes to IT integrate.

To help drive down extent risk, the acquirer can determine whether something can wait to be integrated, or if everything needs to be done at once. For example, when Danske Bank acquired the Finnish Sampo Bank, it was decided to retain Sampo Bank’s relatively small operations in Estonia, Latvia, Lithuania, and Russia on their respective IT systems until IT integration of the Finnish operation was completed.

4.2. Lesson 2: Reduce complexity where possible

Different acquisition IT integration projects vary significantly in their proposed complexity because of the methods required to complete IT integration. On the one hand, there are quick absorptions of companies within Trelleborg, the group typically either left the IT of the acquired company undisturbed, fully absorbed the acquisition’s business processes into the IT of an existing Trelleborg business unit, or made a selective choice of specific processes to IT integrate.

When acquiring CRP, Trelleborg realized that to fully leverage the synergistic benefits between CRP and the corresponding business unit in the Trelleborg group, they ran the risk of having to completely rebuild an IT solution for the combined unit. Realizing this, Trelleborg still chose to move ahead with the deal. However, to reduce pressure at the start over the integration method, Trelleborg management decided to set up an interim solution that could leverage enough synergistic effects to motivate the acquisition. These synergistic effects were the ones primarily communicated to stakeholders. Eventually, a new IT solution that could enable all the synergistic effects was developed, further improving the financial performance of the combined business unit.

To manage complexity risk, the advice is to decrease complexity where possible and whenever possible. If the IT integration can be completed with any of the low-complexity strategies, then the IT integration should not be the acquisition deal-breaker. However, sometimes a complete redevelopment project is the only right decision to take. In this situation, it might be necessary to ask the CEO how badly he or she wants this deal and explain the challenge that lies ahead.

4.3. Lesson 3: If embarking on something difficult, try to leave room to maneuver

Based on the Acquisition IT Integration Risk Assessment Framework described above, there are three ways that an IT integration project becomes difficult:
- The extent of the project is high.
- A complex IT integration strategy is needed.
- The acquirer has not done anything like this before.

Imagine that this was the case when Trelleborg acquired Dynaflex, if Dynaflex was a project of high extent, where synergistic effects only could be realized by a complex method, and where Trelleborg had no experience of similar tasks, then the six-month deadline would have been extremely hard to meet.

When facing a difficult IT integration challenge, it is a good idea to not make things worse by putting a tight deadline on the project. To manage the risk of time pressure, an acquirer can extend the potential timeframe by (a) making sure that the acquired unit can be supported by its existing IT systems as long as needed, and (b) not creating expectations of leveraging benefits that in reality require time to implement.

4.4. Lesson 4: Understand your limitations

Eventually the assessment of how to react to the Acquisition IT Integration Risk Assessment Framework will come down to understanding the amount of risk the acquiring organization needs to address and is able to cope with. This is not a trivial question to answer. Virtually all of us believe that we are above average car drivers. The psychologists have a name for this: illusive superiority—the cognitive bias that causes people to overestimate their positive qualities and underestimate their negative ones. Given
that the CIO is often late to the acquisition decision table, does illusive superiority also apply to CIOs considering their own and their organization’s abilities to complete the next IT acquisition integration challenge?

Some IT acquisition integrations are doubtless very difficult to complete and at the same time are driven by a strong time pressure. Can the acquirer do it? Or does the acquirer consider it knows how to perform a sculpt or a combination IT integration just because it previously managed to complete a few rip and replace projects?

Our advice is to recognize that these may be very different types of challenge. When Trelleborg acquired the Kléber, the group had already conducted several rip and replace acquisitions. Wrongly generalizing from those experiences to the new challenge, Trelleborg started a bolt-on IT integration project that, after two years, was aborted and later replaced with an interim solution, and eventually a start-over project. The new IT integration strategy took ten years to complete.

To manage novelty risk, consider seeking advice from external sources on the history of success of similar acquisition IT integration projects. An outsider may have difficulty assessing the conditions for success in a specific organization, but can advise on the overall difficulty of the attempted maneuver. While doing so, the advantages and disadvantages of using external consultants to carry out the tasks that are completely new challenges should be considered.

4.5 Lesson 5: Get the game—an IT plan of action

Finally, the two extremes of the Acquisition IT Integration Risk Management Framework impact on the opportunity for IT management to perform a vital role in the acquisition. IT management at a firm that is considering acquisitions should do two things. First, it should advise the CEO what type of acquisition will be easy or more difficult from an IT integration perspective. Especially, inform the CEO about what the nightmare scenarios would be. Let the CEO know that it is possible to systematically explore the risk early in the due diligence process. Second, consider how to respond to the news that the firm is to make an acquisition. Create a plan of action to manage the risk drivers before the deal is signed. Be prepared that while the IT may not be a starter in the acquisition game, it can be a game finisher!

5. Concluding comments

History suggests that IT management is typically included at the last stage of due diligence or even later in the acquisition processes. At this later stage, the senior IT executive needs to quickly understand the acquisition IT integration challenge and the prospects for successful IT integration. To assist, this paper presents the Acquisition IT Integration Risk Assessment Framework. The framework identifies and describes four important risk drivers: integration extent, integration method, time pressure, and novelty.

Using the framework, IT managers can identify and manage the risk drivers associated with the IT integration required to realize potential business benefits of a specific acquisition. We have discussed and illustrated how each of the drivers can, if identified, be managed to reduce the potential impact. We have also described and illustrated how the framework can be used to identify low-risk acquisitions where IT integration will not impede business benefits realization early on. The identification of low-risk acquisitions enables non-excessive transaction contracts to be agreed that lower the transaction costs for both acquirer and vendor, and limit the need for contingency plans.

6. References

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Appendix A: Research Methodology

The data collection primarily comprised in-depth face-to-face interviews conducted by members of our research team with senior business and IT managers from Trelleborg AB and several other companies that wish to remain anonymous. The study of Trelleborg was conducted as a collaborative research project that included business and IT managers from Trelleborg, and researchers from one of the authors’ research institution. The research objective was to develop scientifically grounded guidelines for managing acquisition IT integration. Beside workshops and regular project meetings, 31 in-depth interviews were conducted. Key areas of focus in these interviews were the dimensions of synergistic potential, organizational integration, consolidation intentions, employee reaction, IT ecology, integration architecture, and the role of IT integration.

Similar areas to those in the Trelleborg case study have been investigated in a number of large, multinational companies to validate the findings in a wider context. Observations and updates on the companies’ acquisition experiences were synthesized to inform the longitudinal nature of the study’s cases. The key points of these were recorded and discussed by the two researchers as they collaborated on research projects. In addition to the interviews, secondary data from previously published cases and other sources was used to further validate the results. Subsequently, nine interviews were conducted with IT professionals with experience of acquisition IT integration to validate a set of initial guidelines for how to address the acquisition IT integration challenge. During these interviews, the IT professionals assessed suggestions based on their importance (how important is the issue being addressed), accessibility (how well is the advice conveyed), and suitability (how appropriate is the advice given). Based on their input, the suggestions presented in this paper were developed.

Appendix B: Risk Assessment Questionnaire

<table>
<thead>
<tr>
<th>Risk assessment questions</th>
<th>Risk mitigation</th>
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<tr>
<td><strong>Extent</strong></td>
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<tr>
<td>• Which IT systems need to be integrated to enable prospective business synergies to be realized?</td>
<td>• Determine whether some of the IT can wait to be IT integrated, or if everything needs to be done at once.</td>
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<tr>
<td>• Which IT systems can be replaced to drive down future IT maintenance costs?</td>
<td>• Determine whether the IT can be retained separately during a transition phase, bearing in mind that some IT systems can be easier to retain than others.</td>
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<tr>
<td>• Which of the target’s IT systems are critical to the acquired unit?</td>
<td>• Investigate the possibilities of transitioning by using less complex interim solutions.</td>
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<tr>
<td><strong>Method</strong></td>
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<tr>
<td>• Can IT integration be realized by redeploying existing IT systems?</td>
<td>• Try to see beyond the part of the IT integration strategy that is motivated by political or personal agendas, and determine the economic rationality that will improve the company.</td>
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<tr>
<td>• To what extent will problems during the IT integration project disrupt the business?</td>
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<tr>
<td>• Is there a risk in the acquisition of “worst practice” replacing previously superior business processes?</td>
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<tr>
<td><strong>Time pressure</strong></td>
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<tr>
<td>• What is the length of time the acquisition can be sustained without IT integration?</td>
<td>• Make sure that the unit being acquired can be supported by its existing IT systems as long as needed.</td>
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<tr>
<td>• How extensive will the internal pressure be to realize the synergies that motivated the acquisition?</td>
<td>• Do not create expectations of leveraging synergistic effects in the near term that in reality might require a long time to implement.</td>
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<tr>
<td>• When will the next major platform upgrade take place?</td>
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<tr>
<td>• How extensive will the pressure from the stock market to realize expected synergies be?</td>
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<tr>
<td><strong>Novelty</strong></td>
<td></td>
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<tr>
<td>• What is the capability of the acquirer’s own IT organization compared to the extent and method required to realize the business benefits of the acquisition?</td>
<td>• Seek advice from external sources on the history of success of similar acquisition IT integration projects.</td>
</tr>
<tr>
<td>• Are these capabilities available to the required extent, given the timeframe for the IT integration project?</td>
<td>• Consider the advantages and disadvantages of using external consultants for tasks that consist of completely new challenges.</td>
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