

The IT Integration of Mergers & Acquisitions

by

Jun Zhao

B.A. Communication Engineering (1994)
M.Eng. Electronic and Communication System (1997)

Xidian University

Submitted to the System Design and Management Program
in Partial Fulfillment of the Requirements for the Degree of

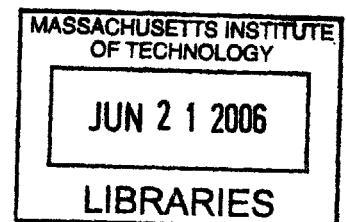
Master of Science in Engineering and Management

at the

Massachusetts Institute of Technology

June 2006

© 2006 Massachusetts Institute of Technology
All rights reserved



Signature of Author

ARCHIVES

Jun Zhao
System Design and Management Program
March 2006

Certified by

George Westerman
Thesis Supervisor
Center for Information System Research

Certified by

Patrick Hale
Director
System Design and Management Program

Abstract

The role of information systems in mergers and acquisitions (M&A) becomes increasingly important as the need for speed of reaction and information is growing. Mergers and acquisitions may disrupt the operations of the organizations involved. Major issues include the need to integrate personnel, business processes, information systems, and diverse information technologies across the merging organizations. Executives who underestimate or disregard the costs and time associated with merging computer applications, infrastructure or IT organizations will face unpleasant surprises. However, if carefully planned and properly managed, the merger/acquisition and the resulting integration process can become an opportunity to strengthen the capabilities of the combined organization and place it in a better competitive position.

The study addresses some of the most important M&A IT planning concepts that executives should know about so that technology-related problems do not delay M&A related business benefits. This study investigates factors that influence the effectiveness of IT integration in M&A.

After studying trade journals and examining some cases, I investigated the following:

1. Determine the proper integration approach based on strategic intent of the merger or acquisition and the type of transaction
2. Determine the integration approach based on the business function support level

The research is based on cases developed through archival research and field-based interviews. The case study research method allows researchers to gather holistic and meaningful characteristics of real-life events. The research includes the study of trade journals and case studies, and a literature review to understand basic problems and solutions of IT integration under the context of M&A. Then study of trade journals and cases led to the development of a set of research questions that are important to the success of IT integration. Hypotheses are proposed for those research questions based on academic literature review. This was followed by archival analysis of M&A cases to examine and refine the framework.

Acknowledgements

The SDM program has been a truly great experience for me. Starting from the Design Challenge One (DC1) and Design Challenge Two (DC2), I enjoyed the experience working with my brilliant classmates on our projects. Prof. Katz's Human Side of Technology let me to examine the technology from both sides. Prof. Crawley's System Architecture opened my eyes on how to think in a more systematic way. During one year journal, I learned not only from the professors but also from my classmates and other students. I also made many friends at MIT who made my life much happier. MIT provided a good environment for me to study both engineering and management. Many other activities, such as the MIT 50K competition, sailing, and scuba diving, made studying and life full of fun for me.

I want to offer special thanks to Dr. George Westerman, my thesis advisor, for providing the guidance in applying systematic thinking to solve complex problem. His extensive experience in both academia and industry allows him to provide keen insights into an analysis such as in my thesis. I also learned from him about how to do a good case study, collect information, and construct a theory and validate it. It has been one of my best experiences in MIT to work with Dr. Westerman. I want to thank him for his candor, patience and knowledge.

I also want to thank four senior IT executives from four Fortune 500 companies, and three partners from three global top ten IT consulting companies for giving me opportunity to interview them. This thesis definitely benefits greatly from their knowledge and experience.

I extend a special thanks to SDM director Patrick Hale. He provided the most flexible environment to allow me to fully explore the opportunities offered by the school. And he also provided valuable advice on both my academic study and personal life. I also want to thank Ted Hoppe for the great food and great events, Bill Foley for his patience and organized information, and Jeff Shao for letting me feel much less stressful about financial situation.

Most significantly, I want to thank my family for their support and patience. My parents, Ying Zhao and Qingqun Zheng were always there for me and have provided me with tremendous support to go through this whole journey. My friends in New Jersey and MIT also gave me a great deal of encouragement and support. Thanks to them!

Table of Contents

Abstract	2
Acknowledgements	3
Table of Contents	4
Chapter 1: Introduction	6
Motivation.....	6
Objective.....	7
The chapters	7
Chapter 2: Background and Literature Review	9
What are Mergers and Acquisitions?	9
The Trend of Mergers and Acquisitions	11
Information System Integration is Important to the Success of M&A	13
The Information System Integration of Mergers and Acquisitions	13
Integration Process.....	13
Determining Factors of Successful Integration.....	15
IT Integration Approaches of M&A	25
Conclusion	28
Chapter 3: Framework	31
Chapter 4: Research Methodology.....	35
Chapter 5: Case Study Results	40
Cases support framework.....	46
One Case does not Support Framework.....	47
Multiple Conflicting Strategic Intents	50
Identify Right Primary Strategy Intent	50
Absorption and Value Capture.....	51
Chapter 6: What about Business Function Support?	53
Pure Absorption and Pure Best of Breed are not Sufficient	54
Extending Absorption	54
Extending Best of breed.....	56
Business Function Support Level Analysis	60
Summary of recommended IT M&A approach.....	65
Chapter 7: Summary and Contributions	67
Contributions.....	68
Integrative Framework.....	68
Initial Empirical Validation of Framework.....	69
Additional Learning from the Data.....	69
Limitations	70
Conclusion	72
Appendix: Cases	74
Strategic Intent and Business Function Support Level Analysis	74
FinCo A & FinCo B Property & Casualty	76
Case Details	76

Strategic Intent and Business Function Support Level Analysis	79
BP/Amoco.....	80
Case Details	80
Strategic Intent and Business Function Support Level Analysis	81
LifeCo A/LifeCo B	83
Case Details	83
Strategic Intent and Business Function Support Level Analysis	86
Commonwealth Bank of Australia (CBA) /State Bank of Victoria (SBV)	88
Case Details	88
Strategic Intent and Business Function Support Level Analysis	90
ChemCo A/ ChemCo B (A).....	92
Case details	92
Strategic Intent and Business Function Support Level Analysis	93
OilCo 2001	94
Case Details	94
Strategic Intent and Business Function Support Level Analysis	95
OilCo 2005.....	97
Case Details	97
Strategic Intent and Business Function Support Level Analysis	98
HP/Compaq.....	99
Case Details	99
Strategic Intent and Business Function Support Level Analysis	100
St. Paul Companies/Travelers Property & Casualty (M).....	101
Case Details	101
Strategic Intent and Business Function Support Level Analysis	102
First Union/CoreStates.....	104
Case Details	104
Strategic Intent and Business Function Support Level Analysis	105
Chase/Chemical Bank.....	107
Case Details	107
Strategic Intent and Business Function Support Level Analysis	108
Ameritrade/Datek (A)	109
Case Details	109
Strategic Intent and Business Function Support Level Analysis	110
Sallie Mae/ USA Group	111
Strategic Intent and Business Function Support Level Analysis	112
References.....	113

Chapter 1: Introduction

Motivation

Mergers and acquisitions are coming back and reaching a level not seen since the 1990s Internet boom, driven by the factors from the worldwide interest rate to an excess of corporate cash. *“After several years in which companies have closely watched costs and avoided the management challenges of big deals, world-wide merger and acquisition volume for the year to date surged to more than \$2.3 trillion this week. That marks the most active market for transactions since the all-time high of \$3.3 trillion in deals in 2000.”* (Berman and Singer 2005)

The role of information systems in mergers and acquisitions (M&A) becomes increasingly important as the need for speed of reaction and information is growing. There is strong need to understand the forces determining the success of IT integration of M&A. A carefully planned and properly managed IT integration process can become an opportunity to strengthen the capabilities of the combined organization and place it in a better competitive position.

There are many studies related to the best practices of the IT integration of mergers and acquisitions. And there are also few studies that attempt to create some kind of framework to understand how IT and business strategy alignment, organizational and IS attributes, organizational merger management, and IT integration planning influence the success of IT integration. My study builds on these studies. I attempt to build a

framework to link and improve many of the best practices. The framework will help practitioners better understand the important aspects of the IT integration of M&A. When they apply the framework properly, they will be able to select the right integration approach, and apply appropriate best practices during the M&A.

Objective

The overall objective of this thesis is to develop a decision-making framework for managers to choose right integration approach during IT integration of M&A.

The chapters

The thesis starts with literature review (chapter 2), which includes articles from trade magazines, research reports of consulting firms, and academic papers. It explains the important concepts of IT integration of M&A, and it summarizes the most common and important issues of IT Integration of M&A based on existing studies.

Chapter 3 proposes a decision framework for mergers based on literature review and case studies.

The research methodology of this thesis is presented in chapter 4. I studied sixteen cases and conducted seven interviews with industrial experts. In Chapter 5 the framework is

exercised by cases collected from public source and interviews with industrial experts.

Detailed case information is presented in Appendix: Cases.

Chapter 6 discusses factors out of the framework that can impact the integration approach choices. At the end of the chapter, a more comprehensive decision-making framework for choosing the right approach for IT integration is proposed.

Chapter 7 summarizes the main findings, and the contributions of the thesis. The direction for further research is also considered.

Appendix contains more detailed analysis for each case used in the thesis. For each one there is a description of the case, analysis of the strategic intent, the integration approach used, and the outcome of the integration. A framework table is included for each case to fit the case into my framework. For some cases, a table on business function support level is presented whenever the information is available.

Chapter 2: Background and Literature Review

In this chapter, I review the research and surveys from business consulting firms, and literature from trade magazines. Then, I will move on to the academic literature.

I want to find the answer to the following question:

- What IT integration approaches are most appropriate for different types of mergers and acquisitions?

To answer this question, I need to define what a successful M&A is. Business consulting firms have done considerable work on this topic, and their ideas will be discussed here. To give readers some basic background knowledge, I also include a short description about mergers and acquisitions.

What are Mergers and Acquisitions?

The term mergers and acquisitions has different meanings in practice. When a company takes over another company and clearly becomes owner of the new business, the transaction is referred to as acquisition. From the legal point of view, the target company ceases to exist and the buying company “absorbs” the targeting company. The stock of the buying company will still be traded (Investopedia 2006), but the stock of the acquired company will disappear.

A merger happens when two companies, usually equal in size, agree to combine two companies. The stocks of both companies will stop trading and a new stock will be issued for the merged company. This is usually called “merger of equals.” For example when Daimler-Benz and Chrysler merged, both company ceased and in the place a new company called DiamlerChrysler was created. A purchase deal is also called a merger, which is when both CEOs agree that joining together in business is in the best interests of both their companies.

I am less concerned about the property and legal difference between mergers and acquisitions. I am more concerned about the how the new company is created. Is there a dominant party in the mergers or acquisitions? What is the relationship between the acquirer and the target company? For acquisitions, there is quite clear answer for that. The buyer is always the dominant party. But for mergers the problem becomes tricky. Nobody will declare which side is the winner. By using the term "merger," dealmakers and top managers try to make the takeover more palatable. But the truth is “merge of equals” does not happen that often. Too often, companies declare the deal is a merger; when technically it is an acquisition. Some IT integration papers (Giacomazzi, Panella, Pernici, and Sansoni 1997) treat mergers and acquisitions the same. But we will notice there is a fundamentally philosophical difference when people think it is a merger or acquisition. We will essentially see why it is important in determining the integration approach later. It is worth distinguishing mergers and acquisitions.

There are five different types of mergers and acquisitions based on strategic intent
(Bower 2001)

1. The Overcapacity M&A – The acquiring company eliminates competitors and excess industry capacity to achieve operation efficiency.
2. The Geographic Roll-Up M&A – The acquiring company expands geographically and operation units remain local.
3. The Product or Market Extension M&A – The acquisition may extend the acquirer company's product line or market.
4. The M&A as R&D
5. The Industry Convergence M&A

Each type of M&A requires a different approach for integration. I will focus on “Overcapacity M&A” and “Product or Market Extension M&A” because they are the most common strategic intents. The research can be easily expanded to other types of M&A.

The Trend of Mergers and Acquisitions

M&A has a long history, but the success rate of M&A has not been dramatically improved. Two surveys in 1999 (KPMG 1999) and 2001 (KPMG 2001) by KPMG provide some information on this topic.

There is an interesting comparison between the 1999 report (KPMG 1999) and the 2001 report (KPMG 2001). The 1999 report revealed that 17% of the deals added shareholder value, 30% produced no significant change in share value, and 53% destroyed value (KPMG 1999). The 2001 report revealed that 30% of the deals added shareholder value, 39% caused no change, and 31% destroyed value (KPMG 2001). There was significant increase in deals which created more value.

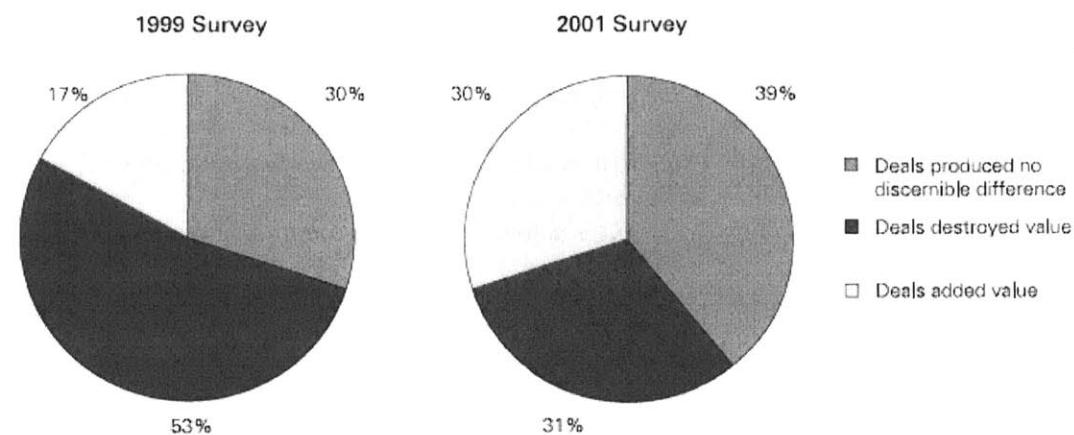


Figure 1 KPMG 2001 Survey Report: Object Measure of Success

Of the companies in the survey, **30%** created value as a result of the transaction, and **24%** of companies in Europe and **35%** of companies in the US created shareholder value from M&A transactions. But according to the report, **75%** of the companies believed that their deal had been successful in achieving its objective. It depends on how respondents defined their objectives. While it can be assumed that the ultimate objective of all corporate activity is to enhance shareholder value, it was clear from the survey that respondents often had other, more immediate goals in mind when embarking on a transaction.

Information System Integration is Important to the Success of M&A

Information technology integration is a key activity during a merger and acquisition but it is often neglected during the M&A planning. Though many companies examine the success of M&A based on financial measurement, they typically do not set their merger strategy based on the information technology they are using (Chang, Curtis, and Jenk 2001), *“It is known that most mergers fail to achieve expected shareholder value.*

Multiple studies point to a number of rational explanations for these failures, including poor target screening, insufficient due diligence, lack of executive support, large cultural differences, and poor execution. One often overlooked reason is the failure to engage the Information Technology (IT) group in M&A activities until it is too late,” (Walsh 2006).

The Information System Integration of Mergers and Acquisitions

Many consulting firms and trade magazines have done research on trying to determine the drivers of the integration success. I will identify several key principles of a successful merger and acquisition integration by reviewing the research.

Integration Process

I will briefly review the typical IT integration process during M&A. Knowledge of the process will help us have a better understanding of the metrics to measure the IT

integration success. There are three main objectives (Consulting A 2005, Consulting B 2005):

1. Business Operation Continuity – how to maintain the stability, maintain the operating environment to make certain that the normal business operation is not interrupted by the integration
2. Synergy realization – focus on the long term integration goal to realize merger synergies.
3. Integration of IT Units – how to merge two IT organizations together, such as IT personnel, and the data center.

The key steps in the integration process are (Shpilberg, Berez, and Israelit 2002,

Consulting A 2005):

1. Start planning discussions for the IT merger immediately after the merger is announced. The key activities include establishing an interim organization structure, defining the IT merger's expectations and objectives, and assigning IT merger project teams.
2. Start IT merger process (Month one and Month two) – Two areas are:
 - a. Merging IT organizations, operations and platforms. The primary activities are defining new IT organization structure and governance process, identifying “quick wins,” and defining IT merger integration projects.
 - b. Supporting running of base business during transition. This involves continuing running existing systems in parallel, creating temporary

- “bridge” between transaction systems of two base businesses, and
- developing interim data repository for reporting and decision making
- 3. Implement “quick wins,” such as merging e-mail systems, to demonstrate IT integration is happening

From the discussion above and review of literature, we can identify the following important factors of successful integration:

- 1. Integration Planning – This includes getting IT involved early, conduct IT Due Diligence, choosing IT Integration approach, and setting integration activities' priority
- 2. Speed of the integration – Determining how fast the integration should proceed
- 3. Communication – Good communication can help solve culture issues.
- 4. Organization and HR -- This includes IT organizational structure and IT personnel.

Determining Factors of Successful Integration

Let us look at the key points of the integration process in more detail.

Integration Planning: Business and IT Strategy Alignment

Technology has become an integral part of the business day-to-day operations, with increased complexity of the IT landscape. IT has had a major impact on the complexity, cost, and time required to complete merger and acquisition planning and execution.

Accenture research has found that those companies that involved IT in the pre-deal deliberations for the M&A not only did better in term of financial results, but also reported that the overall merger integration as a success. In particular when CIO and senior IT management teams get involved earlier in the business planning, they will help better align the technology with the business strategy and needs of the merger. (Chang, Curtis, and Jenk 2001)

The chief of information technology has the responsibility to communicate with the CEO and business executives about understanding important IT strategic questions, such as how IT can help the integration of the company, and how much synergy can be achieved by IT integration. With companies depending more and more on technology, their expectation increases too. The CIO focuses on his/her own responsibility to ensure the basic business running as well as integrate two companies IT together. The CIO must work closely with the CEO on how to optimize the resources of the company by using technology. It seems apparent that most companies know their own IT capability. But many facts say that many companies do not know their IT capability when they start to think about M&A. It is vital that all the executives understand the impact that the IT architecture will have on the M&A. And it is up to the CIO to ensure that information technology is part of the business discussions and planning up front (Worthen 2002).

Stephen David, former CIO and B2B officer of Procter & Gamble, says that once the company has decided to grow via mergers and acquisitions, the first step for the CIO is to come up with a detailed map of the company's IT infrastructure and communicate to the

other executives the company's readiness to do an M&A(Worthen 2002). Even before a merger or acquisition candidate is chosen, the CIO needs to have explicit knowledge of his own architecture and what the most important systems are. If the company does not have a scalable architecture for the growth of company, the CIO must let the executive management team know this and plan ahead. One example is the \$20 billion merger between US Waste and Waste Management (Worthen 2002). Neither company had a scalable IT architecture—just 300 or so scattered AS400 computers between the two—that could support the new, larger company. In 1999, says Thomas L. Smith, senior vice president of IT and CIO, "*Everything hit the fan.*" That year, the senior management team was removed and a new executive team was brought in to clean up the mess. (Worthen 2002)

Another important aspect of business and IT alignment is to get IT involved in the deal decision early. Lack of early involvement can have several consequences (Walsh 2006):

1. Incomplete operational due diligence,
2. Delayed IT-Enabled synergy capture, and
3. Required costly short-Term IT Set-Up/“Throw-Away” work.

Integration Planning: Perform an IT due diligence

An IT due diligence should be performed before the deal is signed. IT system has became quite complex over the years, and the importance of IT increases too. Any potential functional breakdown can influence the integration. A company must have a good

understanding of its own IT infrastructure capability as well as the acquired company's IT capability. Due diligence is an investigation or audit of a potential investment. IT serves to confirm all material facts in regards to a sale. "*In far too many mergers and acquisitions, companies conduct only legal and financial due diligence – not IT*" (Sisco 2005). IT is often overlooked at the pre-deal evaluation. IT due-diligence should be thorough and the result should be built into the valuation of the M&A (Walsh 2006). BP, J.P. Morgan Chase, Procter & Gamble and other CIO-100 honorees confirmed the importance of IT due diligence (Worthen 2002). A survey by Forrester Research found that only one-third of companies make IT a "*very significant*" subject of pre-deal discussions. These IT-aware companies outscore IT-passive companies in every category of business benefit (Giera 2005A).

It is particularly important to perform IT due diligence because business units are more dependent on technologies than ever before. Continuing to operate the new company during or after the transition is dependent on the IT organization's ability to support each business unit's needs. And because much information about IT system is easy accessible now, IT due diligence is not as difficult to implement as before. Accenture Consulting's research (Chang, Curtis, and Jenk 2001) also reports that "*Companies that performed an IT due diligence realized greater financial value from the M&A and also reported a more successful integration experience. Through a due diligence, companies can identify potential capacity constraints, low service levels or undocumented technologies.*" The IT organization's objectives in conducting IT due diligence component of an overall acquisition due diligence effort include the following (Sisco 2005):

1. To support the company's M&A objectives,
2. To assess the technology resources,
3. To develop a due diligence report and budget, and
4. To develop a technology transition plan.

We will see in case studies that in order to make a good decision on integration, deep knowledge of the IS system of both companies is necessary.

Speed of Integration

Speed of post-integration is always mentioned as one of key successful factors of the M&A. Some companies argue that integration must be done quickly to realize the synergies of cost saving. Also, quick integration will enhance the success of integration. A survey of 250 companies by DMR consulting (MacMillan 2001) revealed that only one-third companies experienced integration difficulties when they move the integration quickly, in contrast to about 61% companies that had difficult time when they move slowly (Computing Canada 2001). A survey done by Bain & Co mentions that although only 42% percent who responded rated "*speed value above perfection*" as a critical factor in the success of a merger, some of the best acquirers rank speed as number one (Harding and Rovit 2004). The experience of CIO 100 honorees confirmed that (Worthen 2002). A BCG report mentions that a successful acquirer should quickly capture the long-term benefits of the integration (lower cost and expanded market power), while containing the merger's short-term destabilizing impact on employees and customers (Viner, Rhodes, Dumas, and Ivanov 2000).

First, the market is changing, if the company is not able to achieve synergy in the first 3 to 6 months, it may not achieve it at all. “*The more distant the time horizon, the less accurate predictions about profit will be* (Glasser 1999)”. Second, people’s morale is down if the integration cannot be done quickly. CitiGroup’s Todd Thompson said, “*I think the biggest mistake everybody makes in deals is not integrating rapidly enough. The reality is the faster you can integrate the better. Everybody in the acquired company is sitting around waiting for you to do something, and when you don’t, good people get demotivated.*”(Harding 2004) Third, the investment will be wasted if the old systems from the acquirer and target cannot be integrated. It is necessary to keep investing on all the systems in order to keep the business running. Fourth, the M&A regulation compliance issue will become serious for a long run. Regulation compliance effort can be enormous, for some industries it can be all-encompassing. The Sarbanes Oxley bill makes it a challenge to meet those regulations. The variability of the IT system can make the compliance effort very costly. Companies have to act quickly to identify the compliance list to address as fast as they can.

Some experts think speed must be balanced with other aspects of the integration. The speed of integration must be supported by other activities of M&A. “*Speed, unless pursued selectively, may be less an element of success and more a fatal flaw.*” (Jonk and Vallerien 2005) The research does say speed is an important factor, but the question is what is the right integration speed and what is its impact on the success of mergers and acquisitions. We have to understand the following facts about the speed:

- The speed is relative. There is no absolute merger integration speed. For some companies, a 90-days integration plan may be appropriate, while for other companies, 6 months to 1 year may be more appropriate.
- Integrate quickly where it matters. We have to set the right priority for integration activities. There is something we want to do first during the 90 days after the merger is announced. There is also something we can do later.
- Integration can process at its own speed – recognize the difference.

Integrating quickly does not mean just doing things faster. It also means considering IT early in the M&A planning, laying out the integration plan early, and realizing the most of the achievement in the early stages of the integration.

In summary, why is speed important in mergers and acquisitions? The key factors are (Giera 2005A):

- Deliver financial expectations quickly,
- Minimize uncertainty created by M&A if integration can be done quickly,
- Reduce the risk and impact to employees, customers, and
- Realize advance business goals
 - New opportunities
 - Marketing advantages
 - Streamlined business processes.

Although fast integration has these advantages above, the firms have to carefully choose the right speed of integration based on their own situation and IT capabilities.

A well-executed process can make certain that the integration objective is realized. But if the direction of the integration is wrong, no matter how good the process is, successful integration will not be achieved.

Effective Communication

The Culture issue has been a common concern in M&A integration. It is not unique to IT. But if IT cultural issues are addressed properly, the success of the integration can be greatly enhanced. KPMG's surveys (KPMG 1999, KPMG 2001) found that 26% of companies had better-than-average success if they focused on resolving cultural issues and 13% more likely than average to have a successful deal when they gave priority to communications.

Accenture Consulting's report (Chang, Curtis, and Jenk 2001) also found that of the possible challenges to post-merger integration, the most difficult ones are human or cultural issues: integration of cultures and reorganization of personnel.

One way to deal with cultural issues is communication. Four constituencies should be considered during M&A (Giera 2005A):

1. Customers – The communication includes telephones, websites to press releases.
The challenge is to make sure public customer delivery systems present consolidated front-ends to both entities.

2. Employees – Employees must be aware of what is going on during the entire integration process. No news is bad news. Also, it is important to define the culture to let people know what to expect. Formation and assimilation of the new entity's culture may be the most important dimension for IT to consider. It is also important to facilitate rapid decision-making and issue resolution, to define clear plans for employees, to identify key employee and offer incentives to retain them, and to eliminate people who are not able to support the merged company quickly.
3. Management – same as communication with employee.
4. Investment community – same as communication with customers.

Good communication also demonstrates that merger process is under control (Viner, Rhodes, Dumas, and Ivanov 2000). It helps allay the fears of employees, customers, shareholders, and potential investors. It helps build the reputation of the company. It helps retain talents. It allows managers to disseminate the process and timing of decisions throughout the organization. But senior managers must determine what to communicate and be consistent on the message they send out.

Application Selection

Speed is important. But how can we achieve the fast integration? What is the major hurdle for the fast integration of IT systems?

BCG conducted research on the financial and banking industry. They found that rapid and comprehensive integration of IT systems greatly enhances the chances of overall merger success. One of the key contributions of BCG's research involves the application selection process. The selection of applications is not based on individual applications, but on a group of similar applications, which is called an application cluster. (Duthoit, Dreischmeier, and Kennedy 2004)

For example, when Chemical Bank merged with Manufacturer Hanover Trust in 1991, they spent about one year on the application selection process for 1500 applications. The selection was done one by one based on the features and functions. About 800 interfaces were re-written. When Chase merged with Chemical Bank in 1995, they learned the lessons from previous merger. They classified all the 2500 application into 67 application clusters and selected applications based on clusters and 6 selection criteria. The entire application selection was completed within the first 90 days the deal was announced. (Giera 2005A)

Organization and HR: IT Organizational Fit

IT organizational fit has been studied in the case of the merger of two banks in Australia (Johnson and Yetton 1996). The study found that "best of breed" is inappropriate when IT configurations of acquirer and target are not compatible. "Absorption" will simplify the misfit and reduce the integration complexity. The paper argues that the risk and complexity to merge two incompatible IT configurations are too high. Instead, another

solution, “absorption,” was proposed. It eliminates the incompatibility of two systems and reduces the integration problem to a single factor, IT Systems.

The IT integration of M&A includes the following components:

1. Integration of IS system that supports business units, and
2. Integration of IT organization itself.

In my opinion, the framework of Johnson and Yetton puts too much effort on the IT organization itself, while ignoring that the primary function of IT organization is to support the operation of the business units. My cases prove that the Johnson and Yetton decision rules may not work at all. For example, in the HP/Compaq case, the IT system is totally different. The Best of breed approach works for them very well. Similar cases include Chase/Chemical Bank and Sallie Mae/USA Group. So we will not focus on IT organizational issue in this thesis.

IT Integration Approaches of M&A

The academic literature tends to construct frameworks to address integration issues. Current research has identified some factors that seem to influence IT integration success (Stylianou 1996; Robbins and Stylianou, 1999). Some research addresses the question of what variables influence the IT integration capability of a company (Menge 2005). Some other research focuses on the relationship of IT configuration compatibility and the integration approach (Johnson and Yetton 1996). Still other research focuses on the how the merger objective and IT integration objective determine the IT integration approach (Wijnhoven 2005).

My study focuses on the key factors that determine the integration approach. Why is the integration approach important? First of all, the integration approach gives direction of IT integration. Second, in the previous section, I discussed some best practices and principles to affect a successful M&A IT integration. I found IT and business alignment, application selection, speed, communication, and cost are among those most important factors. The integration approach can serve as a vehicle to communicate the management team's ideas how to achieve cost-saving, and how to balance the integration speed and application selection.

According to Forrester Research (Geria 2005B), Wijnhoven (2005), Consulting A (Consulting A 2005), and CSC's research (CSC 1997), there are four types of integration approaches:

1. Absorption – The acquiring company totally absorbs the acquired company. The IT system of one of the company will be the dominant system. The other IT system ceases to exist after integration.
2. Best of breed – This dictates that the systems of both companies will be reviewed and the best of each will be chosen based on the business needs of the newly combined company. Applications and systems of both companies will be evaluated on an individual or cluster basis. In some best-of-breed cases, the functionalities of applications will be evaluated and the features of applications will be combined to create a new best-of-breed application.

3. Transformation -- Here most of the systems of both companies are retired in favor of new application suites. Usually, a package application suite will be chosen.
4. Coexistence -- For the most part, both companies will continue to run their business independently and some kinds of bridges will be built to connect the two systems together.

So how do the business drivers determine the IT integration approach? CSC's research (CSC 1997) argues that:

1. Co-existence is appropriate if the merger is to acquire unique expertise, or a superior technology or process. It corresponds to our strategic intent of "M&A of R&D."
2. Absorption is appropriate if the objective of the M&A is cost reduction and efficiency gains, which is same as our strategic intent of "Overcapacity."
3. Best-of-breed is appropriate when each side has unique, but complementary capabilities. It is similar to the objective of strategic intent of "Expand Market or Product."
4. Transformation is appropriate if the merger has the clear intent of competing in an emerging or restructured industry requiring a completely new business model, which is exactly the idea of "industry convergence."

There is also a similar mapping presented by Forrester research (Giera 2005B): The business reason for co-existence and best of breed is to increase market share. The business reason for absorption is to realize cost savings and to eliminate competition. The

business reason for transformation is to acquire new technology. The business reasons mentioned here are equivalent to strategic intent (Bower 2001).

From the arguments above, it is clear that strategic intent plays an important role in determining the integration approach.

Conclusion

We can find there are some things are common in the recommendations of those firms.

They are:

1. Get IT involved early,
2. Align IT strategy with business strategy of the company, which includes the notion that business strategy determines the integration approach.
3. Know what you are buying. Conduct due diligence before the merger is closed
4. Plan the integration in detail,
5. Effective communication is important,
6. Integrate fast where it matters,
7. Employ effective application selection to reduce IT integration complexity,
8. IT organization fit is crucial

Let us check the list against the research of consulting companies.

	BCG (BCG 2004)	Accenture (Chang, Curtis, and Jenk 2001)	Consulting A (Consulting A 2005)	Deloitte (Deloitte 2000, Walsh 2006)	CSC (CSC 1997)	Forrester (Giera 2005A)
Get IT involved early	-	Yes	-	Yes	Yes	-
Align IT with business strategy of the company	-	Yes	Yes	Yes	Yes	Yes
Know what you are buying. Conduct due diligence before the merger is closed	-	Yes	-	Yes	-	Yes
Plan the integration in detail	-	Yes	Yes	Yes	-	-
Effective communication	-	-	-	Yes	-	Yes
Integrate fast where it matters	Yes	-	-	Yes	-	Yes
Employ effective application selection to reduce IT integration complexity	Yes	Yes	Yes	Yes	Yes	Yes
IT organizational Fit is crucial	-	-	-	-	-	-

“-“ means that the consulting firm does not explicitly mention a practice is important

Table 1 Consulting Firms' Best Practices

Though those consulting companies agree that some things are important, there are still some differences in their opinions. For example, for the speed of the integration, Deloitte and Forrester Research would argue that integration should be done as fast as possible. BCG says that the speed must be balanced with application selection. A.T. Kearney says that speed is only important when it matters. The differences leave some questions in the implementation of integration, such as where the speed matters during integration, how fast should the speed be. However, they all agree that speed of integration is important.

From the table above, we can see that most of consulting companies find common ground at the following points:

1. Align IT integration strategy with business strategy of the merger
2. Effective application selection process to reduce IT integration complexity,

But, they disagree on details of how these points should be done. Therefore, I focused on these two points when constructing and investigating my M&A integration framework.

Chapter 3: Framework

Through the study of the trade magazines and the research of consulting companies and academic papers, I have acquired a good understanding what are the important factors of a successful integration. The next step is to integrate all this information together to construct an implementable decision-making framework for managers.

From the literature of last chapter, we realize that strategic intent is very important in determining the integration approach. Among the five strategic intents, I will focus here on “Overcapacity M&A” and “Expand Market or Product M&A” because they are the most common. Overcapacity accounts for 37% of M&A deals and “Expand Market or Product M&A” for 36% of M&A deals (Bower 2001).

Based on the strategic intent definition and integration approach put forth in the last chapter, together with the research conducted by CSC (CSC1997) and Forrester Research (Giera 2005B), I construct the following table.

Strategic Intent of Merger	Is Merger Approach Recommended?	
	Absorption	Best-of-breed
Overcapacity	Yes	Perhaps
Expand Market or Product	No	Yes

Table 2 Applicability of Absorption and Best-of-breed approaches for different Strategic Intents

From the table above, we can see that absorption approach is more appropriate if the strategic intent is overcapacity. Best of breed may apply to some overcapacity scenarios. The Best of breed approach is more appropriate if the strategic intent is to expand the market or the product. But it is not clear when to apply absorption or best of breed if the strategic intent is overcapacity. My study demonstrates that the transaction type (merger or acquisition) matters. Mergers and acquisitions differ in several respects (See Chapter 2: What are Mergers and Acquisitions). There are two differences directly related to IT integration:

1. Relative size of the companies. When a big company acquires a much smaller one, it would not consider adopting the smaller company's business model and systems simply because it does not make sense to convert a huge organization to a smaller one. The big company wants to apply its own business process to the merged company. In the OilCo 2001 acquisition case, the OilCo A acquired OilCo D, which is ten times smaller than OilCo A, and the strategic intent is "Overcapacity." It implemented the absorption approach quickly. The results were good. Bigger does not always mean better. But if the strategic intent of the company is overcapacity, to cut costs and to realize operational efficiency, adopting the system of bigger company makes sense. It is much easier to convert small system data into a bigger system. If the strategic intent is to expand market or product, we have to consider how to capture the value of the acquired company's system to be aligned with strategic intent.
2. Culture issues. Culture clash occurs in every M&A. It has been a major cause of many failed transactions. Different approaches are open to more or less culture

clash. In some types of mergers, the acquirer can squash culture clash and, in essence, ignore it. In others, one party does not have that much power, so the firm needs to adopt an approach that manages and minimizes culture clash by addressing the concerns of both sides. When we think about the integration approach, it must be consistent with the management decision of the culture change. If the transaction is declared as being a merger of equals, best of breed will make sense because it matches the management's decision of addressing the concerns of both sides.

When we take into consideration these two differences, it is clear that we should make the distinction between mergers and acquisitions when choosing the integration approach.

Based on the study of consulting firms and the discussion above, I propose the following hypotheses:

- H1: If the type of the transaction is acquisition and the intent of the merger is “overcapacity,” then absorption will be effective, while best of breed will be ineffective. Overcapacity determines that the company wants to realize cost savings and improve operational efficiency as soon as possible. For the acquisition case, the relative size of acquirer is generally larger than the target and the absorption will be consistent with the overall company strategy. Even though people in the target may experience culture clash issues, the power difference between the acquirer and the target allows the absorption approach to proceed despite these issues.

- H2: If the type of the transaction is merger and the intent of the merger is “overcapacity,” then best of breed will be effective, while absorption will be ineffective. In this case, there is no apparent dominant party in the merger and the potential culture clash strongly argues against the absorption approach. Engaging in some form of best of breed enables people from the target firm to feel that they are part of the integration process and that their ideas and resources are not being wantonly discarded.
- H3: If the intent of the merger is “Expand Market or Product,” then best of breed will be effective, while absorption will be ineffective. Here the transaction type really does not matter because the strategic intent means to bring the better of both companies together. The focus of the integration will be on how to conserve the value of both systems, while maintaining speed and efficiency in the integration process

The following matrix summarizes the relationship between strategic intent, transaction type and IT integration approach:

Strategic Intent	Transaction Type	
	Acquisition	Merger
Over Capacity	H1: Absorption	H2: Best of breed
Expand Market or Product	H3: Best of breed	H3: Best of breed

Table 3 Revised Recommendations for Integration Approach Based on Strategic Intent and Transaction Type

Compared to Table 2 , this framework takes into consideration the transaction type, which makes the selection of integration approaches clearer. I will use cases to exercise this framework in the next chapter.

Chapter 4: Research Methodology

A case study is a tool to find the answer to a “how” or “why” question about a set of events. According to Yin (2002), the technical definition of a case study is “*an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident.*”

In general, a case study deals with the situation where there are many variables of interest that need to be determined. It relies on the multiple sources of information and benefits from the existing theoretical propositions to guide the data collection and analysis.

Case study is appropriate for my research for the following reasons:

1. My research question is, “What are the key factors for successful IT integration?”
This exploratory question can be best answered by case study.
2. I am investigating the IT integration approach of M&A, which is practiced by many companies. Beyond the high-level facts of the merger, I also need to understand some details of the integration process and how companies measure the success of the integration.
3. I am at the stage of theory building. The case study allows for a process of grounded theorizing, in which literature and cases are compared in an iterative approach to develop and improve theory.

I gathered information from a variety of sources and consolidated them together. It provides a more comprehensive and objective view on the specific integration. I also conducted interviews with industrial experts from consulting firms, insurance companies, and oil companies. Those interviews give me the opportunity to acquire first hand information and collect information directly relevant to my research.

Based on my research in chapter 3, I have identified the strategic intent of the transaction, transaction type and business function support as the predominant decision factors to determine the integration approach: The cases were collected to fill in those two dimensions. Table 4 lists the cases I studied (A means acquisition, M means merger). The table gives the information for the strategic intent, transaction type, integration approach and source (literature or interview) of each case.

Strategic Intent	Cases selected for study	Transaction Type	Integration approach	Source
Overcapacity M&A	BP/Amoco(early)(A)	Acquisition	Best of breed	Literature
	BP/Amoco (later)(A)	Acquisition	Absorption	Literature
	Commonwealth Bank of Australia / State Bank of Victoria (SBC) (early)(A)	Acquisition	Best of breed	Literature
	Commonwealth Bank of Australia / State Bank of Victoria (SBC) (later)(A)	Acquisition	Acquisition	Literature
	FinCo A/FinCo B Property & Casualty (A) –Claim	Acquisition	Acquisition	Interview
	FinCo A/FinCo B Property & Casualty (A) –Personal Line	Acquisition	Best of breed	Interview
	ChemCo A/ ChemCo B(A)	Acquisition	Absorption	Interview
	LifeCo A/ LifeCo B Life and Annuity (A)	Acquisition	Absorption	Interview
	OilCo 2005(A)	Acquisition	Absorption	Interview
	St. Paul Companies/Travelers(M)	Merger	Best of breed	Literature
	HP/Compaq(M)	Merger	Best of breed	Interview
	Ameritrade/Datek(A)	Acquisition	Best of breed	Literature
The Product or Market Expansion M&A	OilCo 2001 (M)	Merger	Best of breed	Interview
	Sallie Mae/ USA Group(A)	Acquisition	Best of breed	Literature
	Chase/Chemical Bank (M)	Merger	Best of breed	Literature
	First Union/ CoreStates (A)	Acquisition	Absorption	Literature

Table 4 M&A Cases Studied in This Thesis

Both BP/Amoco and CBA/SBC appear in two different blocks because when those two mergers started, both of them were adopting a best of breed approach. They were attempting to bring the best parts of their applications/systems together and create a system to meet the demanding requirements of the merged company. The interesting part is that both of them eventually dropped best of breed approach and adopted absorption approach in its place. FinCo A/FinCo B Property & Casualty also appears in two blocks because its two business units were using two different approaches with very different

outcome. The personal line business used best of breed and turned out to be a failure. The claim service successfully employed the absorption approach and achieved a great success. I think it is better to separate them to reflect their support or disagreement of the framework.

The cases come from two sources: the existing literature of M&A and interviews with industrial experts. During the literature review stage, I focused on collecting cases that demonstrate the essential parts of integration process. I tried to collect information from different sources to build a more comprehensive and objective view of the case.

I conducted seven interviews with a variety of people. Four were senior IT managers at acquiring firms. Three were partners at three of the global top ten IT consulting firms. For confidentiality purposes, I list them anonymously when referring to cases or informants.

I talked to all of them personally, either face-to-face or on the telephone. I recruited them because they exhibited interest in my study. Some of them have strong preference for the absorption approach, others prefer to best of breed, and some of them have a well-defined methodology for their work. The interviewees represented a good mixture based on their experience, expertise and industry.

I arranged a phone interview with them to collect the detailed information I needed. An interview script was developed based on initial research to address some important facts

of integration, such as basic facts of the merger, the IT organizational structure, the application integration procedures and selection process, and the outcome of the integration. Follow up interviews were also conducted to clarify some information and gather more information.

Chapter 5: Case Study Results

I used case study to exercise the framework in Chapter 3. This chapter presents the results of the analysis and interprets the findings. Chapter 6 builds on the findings to examine how a key concept, i.e. business function support, can be employed to improve the initial framework.

I will not go through details of each case in this chapter. Instead I will summarize how those cases fit into my framework. For details of each case, refer to the Appendix: Cases.

Table 5 reorganizes the cases listed in Chapter 4, mapping them to integration approach and the outcome of the cases:

	Success	Failure
Absorption	1. BP/Amoco (later)(A) 2. Commonwealth Bank of Australia(CBA)/State Bank of Victoria (SBC) (later)(A) 3. LifeCo A/LifeCo B (A) 4. FinCo A/FinCo B Property & Casualty (A) –Claim 5. ChemCo A/ChemCo B (A) 6. OilCo 2005 (A)	First Union/CoreStates (A)
Best of Breed	1. Ameritrade/Datek (A) 2. Chase/Chemical Bank (M) 3. HP/Compaq (M) 4. Sallie Mae/ USA Group (A) 5. OilCo 2001 (M) 6. St. Paul Companies/Travelers (M)	1. BP/Amoco (early)(A) 2. Commonwealth Bank of Australia(CBA)/State Bank of Victoria (SBC) (early)(A) 3. FinCo A/ FinCo B Property & Casualty (A) –Personal Line

Table 5 M&A Cases by Integration Approach

Note: (A) denotes acquisition, (M) denotes merger

BP/Amoco, CBA/SBC, and FinCo A/FinCo B appear in two blocks for the same reason explained in Chapter 4.

Based on the cases and information, the following table is created to fit the cases into my framework. The cases in regular font are firms that support my framework – they followed the recommendations of the framework and were successful doing so. The cases in *italic* are those which provide negative support to my framework – they did not follow the recommendations in the framework and were unsuccessful. The case underlined does not support my framework directly, but is explained in the section “One Case does not Support Framework”.

	Acquisition	Merger
Over-Capacity	H1: Absorption: BP/Amoco (A) CBA/SBC (A) <i>LifeCo A/</i> <i>LifeCo B (A)</i> <i>FinCo A/</i> <i>FinCo B Property & Casualty (A)</i> <i>-Claim</i> <i>ChemCo A/</i> <i>ChemCo B (A)</i> <i>OilCo 2005(A)</i> Best of breed <i>FinCo A/</i> <i>FinCo B Property & Casualty (A)</i> <i>- Personal Line</i> <i>CBA/SBC (A)</i> <i>BP/Amoco (A)</i> <i>Ameritrade/Datek (A)</i>	H2: Best of breed HP/Compaq (M) <i>St. Paul Companies/Travelers Property & Casualty (M)</i> <i>OilCo 2001 (M)</i>
Expand Market or Product	H3: Best of breed <i>Sallie Mae/USA Group (A)</i> Absorption <i>First Union/CoreStates (A)</i>	H3: Best of breed <i>Chase/Chemical Bank (M)</i>

Table 6 Cases Arranged into Framework

All cases except one fit into our framework based on strategic intent and transaction type.

The following table summarizes each of those cases in a more detailed way. I will analyze some of the cases individually in the next section to see how they fit into my framework.

Hypothesis	Case	Strategic Intent	Transaction Type	Integration Approach	Outcome	Support Framework?	Comments
H1	<i>BP/Amoco (2 cases)</i> -- Early -- Later	Overcapacity	Acquisition	<i>First, try to be best of breed, then go for absorption</i>	Success	<i>Early: Negative support</i> <i>Later: Support</i>	<i>The failure of best of breed was caused by dramatic strategy and cultural difference</i>
H1	LifeCo A/ LifeCo B	Overcapacity	Acquisition	Absorption	Success (Integration still on)	Support	LifeCo A's system was chosen as the final system
H1	<i>Commonwealth Bank of Australia(CBA)/State Bank of Victoria (SBC) (2 cases)</i> - early -- later	Overcapacity	Acquisition	<i>First, try to be best of breed, then go for absorption</i>	Success	<i>Early: Negative support</i> <i>Later: Support</i>	<i>The failure of the best of breed was caused by culture and IT organizational differences.</i>
H1	FinCo A/ FinCo B Property & Casualty – Claim Service	Overcapacity	Acquisition	Absorption	Success	Support	Same strategic intent, different integration approach leads to different results
H1	<i>FinCo A/ FinCo B Property & Casualty – Personal Line</i>	Overcapacity	Acquisition	<i>Best of Breed</i>	Failure	<i>Negative support</i>	<i>Same strategic intent, different integration approach leads to different results</i>
H1	ChemCo A/ ChemCo B	Overcapacity	Acquisition	Absorption	Success	Support	Everything will be integrated into ChemCo A's system.
H1	OilCo 2005	Overcapacity	Acquisition	Absorption	Success	Support	

H1	Ameritrade/Da tek (A)	<u>Overcapacity*</u> , <u>M&A as R&D</u>	<u>Acquisition</u>	<u>Best of breed</u>	<u>Success</u>	<u>Does not support</u>	The clearing system and back-office were primarily from Ameritrade, while the new web interface integrated many features of Datek
H2	HP/Compaq	Overcapacity	Merger	Best of Breed (Adopt & go)	Success	Support	Achieved annualized savings of \$3.5B by May 2003 – a year earlier than originally projected and \$1B more than earlier estimates
H2	St. Paul Companies/ Travelers Property Casualty	Overcapacity	Merger	Best of breed	Success	Support	The approach nevertheless permitted some best-of-both-worlds outcomes.
H2	OilCo 2001	Overcapacity	Merger	Best of breed	Success	Support	It was actually a best of three
H3	<i>First Union/CoreStates (A)</i>	<i>Expand Market</i>	<i>Acquisition</i>	<i>Absorption</i>	<i>Failure</i>	<i>Negative Support</i>	<i>Although IT integration achieved cost saving, the merged company lost many customers and deposits</i>
H3	Chase/ Chemical Bank	Expand Market* Overcapacity	Merger	Best of breed	Success	Support	The business of two companies were complementary
H3	Sallie Mae/ USA Group	1. Expand Market and Product* 2. Overcapacity 3. Acquire the IT assets and skills of USA Group	Acquisition	Best of Breed	Success	Support	USA Group was chosen as IT leadership. Customer-faced application is from Sallie Mae. Back office choose USA Group

* Primary strategic intent

Table 7 IT Integration Approach and Cases Matrix

Cases support framework

Table 8 summarizes support for the hypotheses. For detailed case information, refer to Appendix.

Hypothesis	Positive Support	Negative Support	Do not support
H1	6	3	1
H2	3	0	0
H3	2	1	0

Table 8 Summary of the cases exercises of the framework

The table indicates that six cases support the hypothesis H1 and three cases negatively support H1. BP/Amoco is a good example to support H1. The strategic intent of the BP/Amoco merger is overcapacity. BP is the apparent dominant party in the merger. When the merger began, they adopted a best of breed approach. They were attempting to pull the best parts of their applications/systems together and created a system to meet the demanding requirements of the merged company. But it turned out that the approach did not work. The integration was delayed and synergies could not be realized. BP finally dropped the best of breed approach and adopted the absorption approach. They successfully completed the integration quickly. The two cases in this merger provide both positive and negative support to H1. The first part provides negative support because best of breed, which goes against H1, was unsuccessful. The second part provides positive support because the recommended approach of absorption was successful.

Three cases support H2. The OilCo 2001 merger is a typical the “merger of equals” case. The strategic intent of the merger is overcapacity. Even though OilCo A (Acquirer) is slightly larger than OilCo B (Target), OilCo A decided not to place its culture over the

target. Instead, it focused on how to bring the people, culture and business together. So the best of breed approach is good for the merger here. The IT integration realized 20 to 30% of the overall cost savings of the company and was regarded as a success. (OilCo A 2006)

Of the two cases supporting H3, the Chase/Chemical Bank merger is a successful story of best of breed. The huge 1996 merger between Chemical Banking Corp. and The Chase Manhattan Bank was "*close to a grand-slam home run*," (ComputerWorld 2000). The reason for the merger of two banks was to exploit many complementary services. The merged company could provide more comprehensive services to its customers. Best of breed made good sense for combining the strengths of both companies. Since the strategic intent of the case is "expand market or product," the success with a "best of breed" approach supports H3.

One Case does not Support Framework

We can see that the Ameritrade/Datek does not support my framework. The primary strategy intent of Ameritrade/Datek was overcapacity. It was intended to slash costs and realize economies of scale. According to my framework, the integration approach was supposed to be absorption, but it ended up with best of breed. The integration cut \$80 million in technology-related expenses in the consolidation, allowing Ameritrade to beat its overall cost-cutting target of \$173 million by more than \$70 million. Its break-even

point—the amount of activity at which it can begin to make money—has been reduced to 29,000 trades a day, from 50,000.

Does it mean my framework is wrong? Let us take a close look at the acquisition. As I previously noted earlier the primary strategic intent of Ameritrade was overcapacity, but one reason Ameritrade wanted to acquire Datek in the first place was its innovative approach to online trading. Computer and communication systems are essential to any online brokerage, handling everything: taking orders, making trades, and keeping track of client accounts. Ameritrade and Datek's strength in IT capability are complementary. Ameritrade has a reliable and steady operation back-office system as well as an internal clearing system; Datek has innovative tools for stock traders. Datek had built a Windows-based system that allowed it to develop new online-trading tools quickly and to send orders to stock exchanges faster. Ameritrade wanted to get the best of Datek onto its computing platform and build a stronger information technology framework (McCormick 2003).

The situation becomes interesting because of this secondary strategic intent, M&A as R&D. Should Ameritrade insist on the absorption to realize cost saving and operational efficiency as soon as possible? Or should it adjust its integration approach to capture the value of Datek? As this case tells us, if the technology or system of the acquired company is essential to the business of the merged company and is able to bring substantial value to the merged company, best of breed brings the best part of acquired company. It means

we have to make an adjustment to the integration approach based on the secondary strategic intent.

It is important to bear in mind the primary strategic intent, so that it will not be interrupted when a different integration approach is used. The Ameritrade/Datek case gives a good example of how the best of breed integration was executed without compromising too much on the primary strategic intent. Ameritrade divided its IT system into three parts: the internal clearing system, the back-office system, and the web-based customer facing system. They integrated backwards, starting from the internal clearing system. It decided to stick to Ameritrade's internal clearing system, first because it would realize dramatic cost savings, and, second because Ameritrade has many more accounts than Datek. Then, it used part of each company for handling orders and created a website with many innovative features Datek developed. The entire process enabled Ameritrade to capture the value of Datek and to integrate as fast as possible.

From this case, I learned that a company must adjust its integration approach if it has multiple strategic intents. It explains why Ameritrade/Datek was still able to do a successful best of breed integration even where its primary strategy was overcapacity and the transaction type was acquisition. Doing something different from what I recommend will be difficult, but firms can choose to do it as long as they understand the difficult involved and manage it accordingly. Ameritrade lived with the difficulties of best of breed because of the strategic value.

Multiple Conflicting Strategic Intents

Sometimes the selection of an integration approach is not straightforward. Management must understand the real strategic intent of the merger when it applies the framework.

Only when management masters that, is it then able to make right decision what the integration approach should be. Here I use two examples to illustrate the complications of different scenarios.

Identify Right Primary Strategy Intent

The situation of hypothesis H2 can be complex if the company has multiple strategic intents. For example, when Sallie Mae acquired the USA group, it had three strategic intents:

1. Acquire USA group's complementary student loan service to allow Sallie Mae to have a role in the entire life cycle of student loans (Expand Market or Product)
2. Reduce cost and improve operation efficiency (Overcapacity)
3. Acquire the IT expertise of USA group (M&A of R&D)

In this case, one must identify which strategic intent is the primary strategic intent, and then adjust the overall strategy based on second or third strategy intent. The primary strategic intent of Sallie Mae is to expand its business by providing excellent customer service, which is "expand market or product." It determines the integration approach is best of breed. But if we identify the primary strategy intent incorrectly, such as overcapacity, we may end up with a different integration approach.

Another example is the case of First Union/CoreStates. The strategic intent of the First Union was to expand market share by acquiring CoreStates. But under the pressure of Wall Street to realize cost savings for the high premium it paid for the acquisition, First Union pursued an aggressive cost savings strategy, which is more like the strategic intent “Overcapacity.” They used the absorption approach to integrate the IT systems. The integration itself was successful from an IT cost-saving perspective, but the overall company’s performance was bad. According to published reports at the time, First Union lost nearly one-fifth of its CoreStates customers. In addition, First Union lost 9% of CoreStates’ deposits and 14% of its loan business (ComputerWorld 2000). First Union's post-merger integration “*helped them short term say they reached their cost-cutting goals, but not in the long term because they lost customers,*” (ComputerWorld 2000). In May 1999, Edward E. Crutchfield, First Union's chairman and CEO, announced that the previous year's earnings would be approximately 15% lower than originally forecasted partially because of the slower-than-expected revenue growth from the region served by CoreStates and from the bank's Future Bank and Internet initiatives. (ComputerWorld 2000)

From the cases above, one can conclude that the application of my framework is not straightforward. The company must identify its primary strategy intent correctly. It is able to focus on its primary strategic intent and not to be distracted by other minor issues.

Absorption and Value Capture

There are some other factors that companies think may be important in determining the integration approach. The key point here is that the company has to stick to its integration

approach determined by its strategic intent, which should not be overtaken by other factors.

For example, OilCo A acquired OilCo D in 2005. OilCo A is ten times bigger than OilCo D. The management made it very clear that it was an acquisition, not a merger. The integration should be done quickly to realize the synergies of cost-savings and improved operational efficiency. OilCo A absorbed OilCo D's system rapidly and the integration was a success. During the interview with a senior IT manager at OilCo A, he mentioned that they feel if they could do it slower, they might be able to capture more value from OilCo D. The key point is how to balance the dominant integration approach and the value capture of target. In this OilCo case, OilCo A made the correct decision to use absorption as the integration approach. It realized that the company's primary goal was to cut costs and to run the operations more efficiently. Even if it loses some value of the target, the rapid success brought more value to the merged company. This is the trade-off that management must make to implement a successful integration. This example demonstrates that a company has to stick to its integration approach determined by its strategic intent. But it may combine some features of best of breed to acquire some value from target. This will be addressed in next chapter.

Chapter 6: What about Business Function Support?

How does the functionality of the target and the acquirer's applications matter in integration? If we choose absorption, does that mean that relative business function support level of the target and the acquirer's applications do not matter? If we do best of breed, do we always do a detailed multifactor comparison at the application level, even if that makes the integration slower and more difficult?

Before I go into the detailed discussion, of these issues I will offer a definition of business function support level. I will focus on how the IT system supports the business process instead of examining the issue from entire IT and business alignment point of view. The IT and business alignment includes communications, metrics, governance, partnership, technology, and human resource (CIO Insight 2005).

Here I use a very narrow definition, which is mainly from the technology point view.
“The extent to which IT is able to provide a flexible infrastructure, evaluate and apply emerging technologies, enable or drive business processes, and provide customized solutions to meet customer and internal needs.” (CIO Insight 2005)

Some criteria to evaluate the support level are (CSC 1997):

1. Whether the application (application suite) was scaleable,
2. Whether it supported the business process,
3. Whether it had the extra features that were needed,
4. What the lifecycle cost profile looked like, and

5. Whether it fitted well with the architecture.

Pure Absorption and Pure Best of Breed are not Sufficient

Pure absorption would eliminate the possibility of using valuable assets from the target firm. Pure best of breed could get bogged down into detailed political arguments over many details, but nothing would get done.

Examining the cases reveals that most firms do not adopt a black and white absorption or best of breed approach. Rather, they use a hybrid approach combining elements of both. For example, BP used the absorption approach in its acquisition of Amoco, but at the same time, it still kept Amoco's SAP system for its US operation. They adjust the absorption approach so they can take advantage of important resources from the acquired company, without slowing down into a difficult political negotiation process. Similarly, best of breed need not look at every application in detail. It can use a streamlined process to reduce the complexity and political nature of the negotiation process, such as the "application suite selection" approach adopted by Chase/Chemical Bank case.

We will examine each approach in turn.

Extending Absorption

From the study here we can see absorption is relatively simpler and faster than best of breed. The cost savings of absorption can be substantial and it also reduces the IT integration risks because it can consolidate two companies' IT assets quickly and one of

them is already familiar the IT systems and business processes. This works for some companies. But there is a trade-off between those benefits and having the best-in-class IT.

FinCo A is a typical example of insisting on the absorption approach. The company makes it very clear that it will always use its own system instead of a best of breed approach. They never go into the discussion of detailed application selection. So far, since their acquisitions are aligned with their strategic intent, absorption works very well for them.

Another example is ChemCo A/ChemCo B. ChemCo A traditionally runs itself like a holding company, allowing its five business units to run independently. Thus, management found it is quite difficult for the company to be run as whole. Chemical industries were facing a difficult time, e.g. the cost of raw materials was up and revenues were down. The implementation of an integrated SAP system to improve operation efficiency became critical to the survival of the company. The integrated SAP system enabled ChemCo A to use absorption approach for its acquisition of Clariant emulsion and powders business. It worked well for them.

In the case of absorption, when the acquirer's system cannot fully support the function of merged company, we have following options to integrate the two systems (A is acquirer, T is target):

1. Enhance A's system to be able to support the merged company
2. Enhance T's system to be able to support the merged company

3. Stick to A's systems and throw out T's systems
4. Create best of breed of two existing systems (but absorption does not allow for this)
5. Co-existence – allow the two systems run in parallel

How should the choice be made when the acquirer knows its existing systems cannot support a particular business process or function? When the strategic intent has determined the integration approach to be absorption, option 4 and option 5 are out of question. The focus instead should be on the value that the system chosen can bring to the merged company. For example, when BP acquired Amoco, it finally adopted the absorption approach after it failed with best of breed. But it still kept the SAP system of Amoco to run its US operation. The major reason is that Amoco was one of the world's largest SAP platforms and had considerable experience in SAP implementation and BP was in its direction to integrate ERP systems (Patton 2004). This demonstrates that careful consideration must be given to certain applications to capture the maximum value from the integration.

Extending Best of breed

Best of breed can build the best in class IT because the best parts of both companies are chosen. Best of breed works optimally when each side has unique and complementary capabilities. For example, when Ameritrade acquired Datek, one of the reasons was Datek's innovative approach to online trading. Ameritrade was concerned about running a reliable and steady operation. Datek, on the other hand, was interested in developing innovative tools for stock traders. The integrated system includes new web interfaces

with many of Datek's features, including a clearing system from Ameritrade and a combined back office system which a combination of best parts of both companies.

The application selection process is a major cause of complexity, slowness and culture clash of the best of breed approach. The traditional best of breed approach examines each application individually. It makes the judgment based on a comprehensive multi-factorial comparison. The Sallie Mae and USA Group IT integration is a successful best of breed approach. The fate of current applications was determined by a group of gap analysis criteria, such as scalability, cost, performance, reliability and partnership. The detailed comparison of applications was conducted for major applications, such as a loan serving application, and finance and human resources. Sallie Mae gave applications different priorities and treated them differently. For example, it focused on the lowest business integration risk for customer-facing applications, concentrating on capturing cost savings for back office systems. Focusing on high priority applications enabled Sallie Mae to integrate quickly.

If the merger is big, the challenge to look at each application can be huge. The Chemical/Manufacturer Hanover case proved that examining each application of the merging company was both time-consuming and difficult (Worthen 2002). In this merger, application and sub-application were chosen individually, and a very complex integration process was needed to bring two systems together. It resulted in an enhanced infrastructure to support business operations, but the cost was expanded and the complexity of the infrastructure was very high. (CSC 1997)

A new application selection process, suite-based application selection process, has been propagated by several consulting companies, including BCG (Duthoit, Dreischmeier, and Kennedy 2004), Consulting A (Consulting A 2005), Consulting B (Consulting B 2005) and Consulting C (Consulting C 2005), as has been testified with several cases we have studied.

I will consider Chase/Chemical and HP/Compaq because those two cases are widely cited as examples of successful integration efforts. The huge 1996 merger between Chemical Banking Corp. and The Chase Manhattan Bank merger was a success. Chase/Chemical Bank did a successful implementation of the best of breed approach by selecting applications at application suites level, which greatly reduced the complexity of the integration. The IS integration team proposed a new application selection process that examined a group of applications at a suite level or sub-suite level, which is roughly equivalent to business units or processes. The IS merger team identified 2,500 applications, 38 suites and 67 sub-suites of applications, such as “consumer deposit systems,” “consumer credit systems,” “trading platform,” “international Systems,” and “HR/Payroll”. For a detailed list of the application suites, refer to the CSC (1997) report. By selecting applications at this “higher” level, fewer decisions needed to be made, thus the complexity and risk of the integration process were reduced. The selection criteria were at a high level as well, which compares business fit, technical fit, functionality, cost, age and development environment. Detailed analysis was done only when the high level

evaluation failed to make the decision. Selecting applications at a “higher” level reduced the complexity and risk in integrating systems subsequently.

A key challenge for this approach is how to determine the application suite. There are two issues here. First, the complexity of IT integration is balanced with the potential benefits for business alignment. The more granular the suite, the lower the potential business alignment, but with much less IT complexity. Figure 2 depicts this idea clearly (Note: application cluster and application suite are used interchangeably in this thesis). Also, because the application selection decision is made for each application suite independently, the application suite must be independent. The task can be tricky because the interdependence of applications and dependency on the underlying infrastructure can make the things very complex.

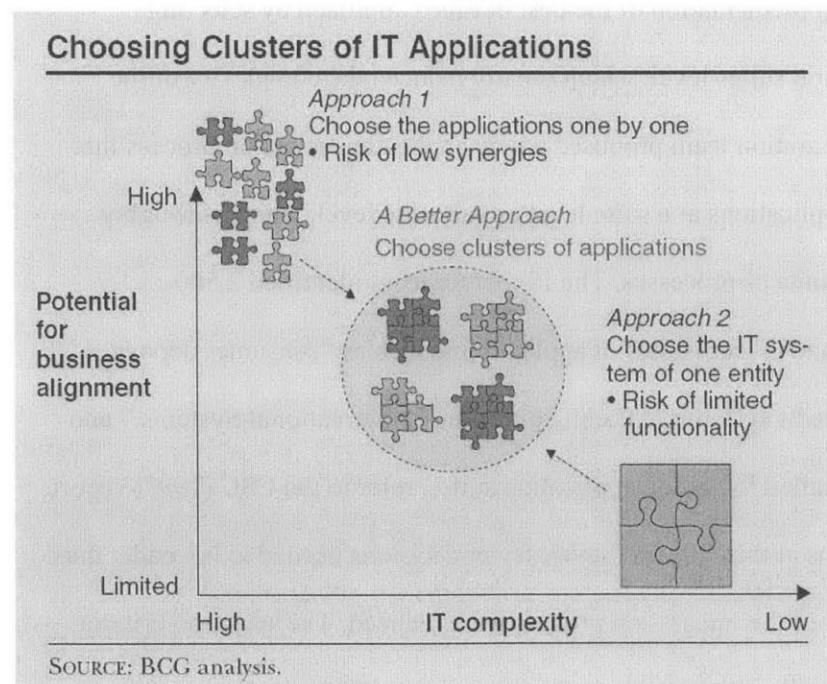


Figure 2 Choosing Suites of IT Applications (Duthoit, Dreischmeier, and Kennedy 2004)

The HP/Compaq merger used a similar application selection process. They compared like categories, in which the merger used the best of breed approach for particular systems or a particular product line. The decision was based on which system would better support merged business. They decided not to take the best of both. They were instead going to select one of them. And they stuck to the decision. It worked well for the HP/Compaq merger. One of the fundamental things about their process is that the company may lose a little on the optimized outcome because it is not going to take the best of both. The company is just going to take one of them. The big compensating factor is that the company can get through the process much more quickly.

From Chase/Chemical Bank, HP/Compaq cases, along with cases of last section, we can see that both the absorption and best of breed approaches incorporate some elements from each other. Companies that choose absorption approach still can do a business function analysis to capture some value of the target when the acquirer's systems are inadequate for a particular function. Companies that choose the best of breed approach may implement the application selection at suite level to capture the value of both companies' systems faster and make the integration less complex.

Business Function Support Level Analysis

Based on the discussion above, company business function support level analysis will help both absorption and best of breed to achieve better results. In this section, I will examine various different scenarios of the business function support level analysis and analyze why both absorption and best of breed can benefit from it.

Looking at the business function support level of systems of both the acquirer (A) and the target company (T), the following scenarios are possible (A means the acquirer and T means the target):

1. Support level of A is high
2. Support level of both A and T are almost equal, resulting in three situations:
 - a. Both support levels are high
 - b. Both support levels are low
 - c. Both support levels are completely inadequate. That occurs if the company's primary strategy intent is "Overcapacity" or "Expand Market or Product."
3. Support level of T is high
4. A does not support at all, or the support level is completely inadequate.

The following diagram demonstrates all those scenarios:

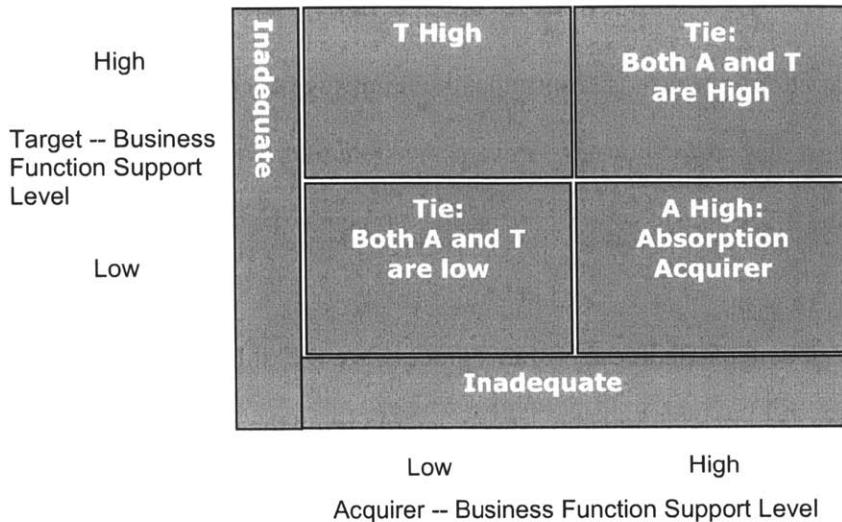


Figure 3 Business Function Support Level

The following table summarizes how to choose the right suite application based on strategic intent and business function support level:

	A High	Tie			T High	A Doesn't have or A completely inadequate
		Both High	Both Low	Both completely inadequate		
Absorption	A	A	A	New	A	T
Best of breed	A	A	New	New	T	T

Table 9 Integration Approach and Business Process Support Level

As to absorption approach, from the Table 9, we can see that when both company's systems are completely inadequate in supporting on-going business, a new system is needed. For example, in the FinCo A/FinCo B case, where there was a small operation, bond business, a different strategy was adopted. A new bond business platform was developed to support the merged business. Companies may also consider using the target's system if the acquirer does not have a comparable system or the acquirer's

system is completely inadequate, though this scenario is very rare if the strategic intent is overcapacity.

If the primary integration approach is absorption, the following observations hold:

1. If A is able to support the business process, the system of A will be taken,
2. If both A and T are able to support the business process, the system of A will be taken,
3. Even if B can better support the business process, we will still use the system of A, but it may require additional investment later to bring the system of A up to speed
4. If A does not have system support the business process or it can only poorly support it, the system of T will be used. This usually happens when A acquires some new product or service of T that did not exist in A before.
5. Only in the situation that both A and T are completely inadequate to support the business function, we are considering other options, such as best of breed or transformation.

In other words, absorption always uses A's systems, unless A's system is completely inadequate to support a particular function.

Best of breed incorporates some elements of absorption by looking at the suites of applications instead of individual applications, and by using a smaller number of factors in the multi-factorial selection analysis. As long as one application suite is able to support on-going business, it will be taken. This is illustrated in "Table 9 Integration

Approach and Business Process Support Level.” We can clearly see that instead of always blending applications together, best of breed attempts to select the better application suites of two companies.

No matter how companies employ business function support level analysis, the dominant approach should be determined by different strategic intents and transaction types. The FinCo A and FinCo B case is an illustration. The FinCo A/FinCo B merger involved two business units: claim service and personal lines. From the business point of view, it was obvious that FinCo A wanted to absorb the business of FinCo B P&C as soon as possible. From the technology standpoint, a different integration approach was adopted by different business units. The claim business aggressively used the absorption approach. As to the claim service, it was apparent that one system could handle all the business functions for the merged company. It was quite obvious which was the right choice is from system standpoint. The personal lines business decided to use best of breed approach to integrate the systems because they felt neither company possessed the model that would be completely functional. The personal line business was slow because of the much more controversial strategy it chose. It took much longer time to execute. The lesson from this example is that business function support should not overtake the strategic intent as the primary factor in determining the integration approach. The personal line business let the business function level analysis overtake the strategic intent, which resulted in the failure of the integration.

Summary of recommended IT M&A approach

The M&A integration approach should be chosen based on the following steps:

1. Determine the primary integration approach based on strategic intent and transaction type according to the framework presented in chapter 3.
2. Examine the business function support level of each individual business units/process to determine how to integrate two systems together. Note that, for absorption, this does not mean best-of-breed comparison. Rather, it means assessing whether A's existing systems provide adequate support for each function, and then doing best-of-breed comparison only for the few functions that A's systems do not support adequately.

The results from this process are two-fold:

1. If the primary strategic intent is absorption, but A's existing systems do not support a key function, the step 2 of the process may enable the company to capture some value from the acquired company by integrating its system.
2. If the primary strategic intent is best of breed, the step 2 will enable the company to choose applications at a suites level, which can make the best of breed approach both simpler and faster.

The right integration is not just a black and white choice. Although the dominant integration approach is determined by strategic intent and transaction, both absorption and best of breed can incorporate some elements of both to achieve better result. This chapter provides a way to help companies determine what the correct level of "grey" is.

Combined with the primary integration approach, the business function support level analysis will reveal exactly how the integration should be achieved.

Although I have reached this conclusion based on literature review and case studies, I do not have sufficient data to exercise the proposal right now. The proposal will be validated when more information and cases become available.

Chapter 7: Summary and Contributions

The successful IT integration of mergers and acquisitions requires a good decision making model and integration execution at right speed. The model proposed in this thesis provides managers a tool to make clear rational decisions as to what the integration approach should be.

This thesis examined the existing literature about IT integration of mergers and acquisitions. I focused on the determination of right integration approach. A new framework was proposed based on the works of consulting companies. Then it was extended through analysis of case studies. The framework is supported by nearly all the cases examined. I further discussed other factors that may influence the integration approach.

The framework proposed in this thesis indicates that strategic intent and transaction type are important factors in determining the integration approach. A key point in applying the framework is to determine the right strategic intent. The situation can be complex when the companies have multiple strategic intents. An enhanced framework with business function support level analysis is proposed. Business function support analysis can enable both absorption and best of breed incorporate some elements from each other to achieve better result.

Contributions

The thesis makes five important contributions of three types:

Integrative Framework

1). Organized and integrated the jumble of ideas from consulting company "best practices" for M&A. Some ideas are common, such as aligning IT integration strategy with business strategy and choosing appropriate application selection approach to reduce integration complexity. Others are different, such as the importance of transaction type, business function support. I focused on the most important differences to come up with a framework that determines the integration approach based on strategic intent.

Whereas consulting companies' recommendations tend to provide partial answers, or complete answers to only part of the problem, I identified a framework that fully specifies a set of decision rules involving three important concepts: Strategic intent, Transaction type, and Integration approach.

2). Extended the ideas from consulting firm methodologies by showing that transaction type (Merger or Acquisition) is an important determinant in deciding the right integration approach. This factor was ignored by the studies I examined. My research finds that relative size of the companies and culture clash are important issues that need to be addressed. Transaction type can precisely capture those issues and enabled me to come up a clearer framework on determining integration approach.

Initial Empirical Validation of Framework

3). This thesis showed, using publicly-available information, how the framework is useful in real-life situations. This shows that my recommendations are not just hypothesizing from a limited set of experiences and assumptions. Instead, we see that they hold over a diverse set of real-life cases, with only one exception out of 16 cases. 15 cases cover different combinations of strategic intents, transaction types, and integration approaches. I find not only those firms following my framework had favorable outcomes, but also the reverse -- firms not following the framework had negative outcomes. They either needed to change their integration approach to one that fit the framework, or they suffered from the consequences of a poorly executed merger.

The exception is also important because it shows how integration becomes complicated when there are multiple strategic intents. Firms must make a good balance among all strategic intents, taking into consideration of all strategic intents while focusing on primary strategic intent.

Additional Learning from the Data

4). I reframed the importance of business function support in M&A. Contrary to some opinions, business function support is not the most important part of M&A integration, even in best of breed. In fact, "good enough" business function support is often good enough. It is demonstrated by both Chase/Chemical Bank and HP/Compaq cases. Both companies did not hang up on getting the best business support of IT systems. They were

just looking for the system which can support the business well enough, which made the integration process much simpler and easier.

Business function support has an important role to play in two situations: conflicting strategic intents and inadequate systems on the acquiring side. Sometimes the firm may have multiple strategic intents. For example, for Ameritrade/Datek case, a detailed business function support analysis helped the firm to choose the most appropriate way to integrate. As we know, one company can not be good at everything. The acquirer may find out that its IT support for some functions are totally inadequate. Looking at what the target company has is a valid way to address this issue. Business function support analysis will help company better understand what IT capability they have and what IT capability they are acquiring.

5). It showed that absorption and best of breed are not pure types. Each can be adjusted to address some of its risks and incorporate some benefits of the other, while retaining its own benefits. For example, absorption may still keep some systems of target to capture the maximum value from integration, such as BP/Amoco case. Further, best of breed may divide IT system into application suites, and then apply absorption principle for each application suite to achieve faster and easier integration.

Limitations

The study is, of course, limited. It is a first attempt to integrate and unify a large number of ideas from practitioners and academics. In order to complete this first phase of research I had to narrow the scope to a manageable level. However, this leads to a set of limitations:

1. Limited set of cases. Because I worked from publicly available data, relatively few cases had enough detail to enable exercising the framework. I identified 9 cases from public source, primarily from trade magazines and published case studies. It is supplemented where possible with interviews to develop 7 more cases. Larger sample research could examine the framework in more detail at a later date. For example, a survey could collect more information on many issues that I want to explore, such as IT due diligence and application selection process.
2. The study covers a limited, but important, set of conditions. The framework considers the strategic intents and integration approaches that I considered most common and important. But, one could extend the research to cover the less-common situations. For example, “Merger as R&D” and co-existence can also be studied to show how to integrate the R&D capability of target company.
3. The study does not fully consider important concepts such as culture change, speed, or communication. My strategic intent and integration approach concepts address these issues somewhat, but much more could be done to examine these in more detail. For example, we could examine how to establish the measurement for each integration approach, so firms are able to have a better idea of the progress when integration goes on.

Conclusion

Many people discuss the need to get IT involved early in M&A. Incomplete IT due diligence costs companies a lot to address the complexities incurred during the integration later. Proper due diligence can support the company's M&A objectives, assess the technology resources, develop a due diligence report and budget, and develop a technology transition plan.

Unfortunately, few firms actually follow this advice. For example, during my interview with OilCo A, they mentioned they didn't conduct any IT due diligence at all, they just assumed that Information systems should be the way they are. Other companies I interviewed didn't explicitly put IT due diligence in their priority list either. Part of the problem is that due diligence can be difficult and time-consuming, at the same time that the two firms are working rapidly to consummate an M&A agreement. Another part may be that firms just don't know the importance to conduct due diligence.

This thesis addresses the problem of due diligence in M&A by studying the integration process. It outlines the most important decisions to be made, and the sequence in which to make them. It creates a streamlined process for examining how integration will take place. It also identifies the importance of having clear strategic intent. Firms can go through the whole process during due diligence if they have the opportunity. Due diligence should incorporate tasks to identify strategic intent, conduct up-front analysis according to my frameworks, and identify where the approach needs to be adjusted based

on other factors. By applying my frameworks during due diligence, firms can avoid potential IT integration issues and costs later in the process

However, the process need not be used only in Due diligence. It is equally useful after the deal, when conducting the integration. Detailed integration activities should be planned based on the integration approach recommended in this thesis.

In summary, this thesis gives managers a set of tools they can use for IT integration in M&A. These tools can help to make a difficult and often contentious integration process much more rational, and improve the firm's likelihood of gaining the synergies that are promised in the merger. The framework in this thesis gives managers a clear view how the integration should be conducted and where they should put most of their efforts.

Appendix: Cases

I built sixteen case studies (summarized in “Table 4 M&A Cases Studied in This Thesis”) based on a review of press and interviews with experts. In this appendix, I describe each case in more detail. For each case, I show the description of the case, the analysis of strategic intent, transaction type, and the result of the integration. Then, I use the following structure to summarize how each case fits the framework.

Note that 5 of the 16 cases are anonymous. The reason I did that is to protect the confidential information of the company.

The table below shows how each case fits into the framework. I employ the FinCo A/FinCo B as an example. If both companies’ integration approach matches the suggestion of my framework, the block will be indicated by “**MATCH**”, as shown in Table 11 for the FinCo A’s claim unit. If not, then “**REC**” shows the desired integration approach in my framework. “**USED**” shows the actual integration approach used by the company, as shown in Table 12 for FinCo A’s personal lines unit.

Strategic Intent and Business Function Support Level Analysis

Strategic Intent and Integration Approach:

Merger Approach	Acquisition	Merger
Over Capacity	H1: Absorption MATCH	H2: Best of breed
Expand Market or Product	H3: Best of breed	H3: Best of breed

Table 10 FinCo A/FinCo B - Strategic Intent and Integration Approach

Claim Department:

	A High	Tie			T High	A does not have or A completely inadequate
		Both High	Both Low	Both completely inadequate		
Absorption	A MATCH	A	A	New	A	T
Best of breed	A	A	New	New	T	T

Table 11 Business Function Support Level Analysis for Claim Unit

Personal line department:

	A High	Tie			T High	A does not have or A completely inadequate
		Both High	Both Low	Both completely inadequate		
Absorption	A	A	A REC	New	A	T
Best of breed	A	A	New USED	New	T	T

Table 12 Business Function Support Level Analysis for Personal Line Unit

FinCo A & FinCo B Property & Casualty

(Interview with a former senior IT executive of FinCo B)

FinCo B sold its property and casualty insurance operation to FinCo A for \$4 billion in 1995. It gave FinCo B the opportunity to streamline its insurance operations, so it could concentrate on its healthcare insurance. FinCo A was to achieve operational efficiency by acquiring the new business. Essentially, two industry giants were shifting from trying to serve everyone to focusing on specific lines of insurance.

Case Details

From the business point of view, it was obvious that FinCo A wanted to absorb the business of FinCo B P&C as soon as possible. From the technology standpoint, different technology strategy was adopted for different business units. That was determined by the way that the company was structured. There were three main business units:

- Personal lines, including auto, home and personal insurance.
- Commercial lines included liability, work compensation, commercial insurance.
- Then there was a large operating unit, which was claim operation.

The claim group was aggressively using the absorption approach. On the claim side, the integration team quickly determined what the best set of systems between the two companies was. Then they aggressively migrated the other system to the preferred system. Within a short period of time, they were able to integrate the systems together. On the personal line side, they decided that the best thing to do was to integrate the systems of two companies because they felt neither the company had models that could be

completely functional. So they decided to use applications from one company and several databases from another company. Personal line business had a much more complex integration strategy between the two organizations.

The integration was relatively easier for claim service. It was apparent that one system could handle all the business functions for the merged company. FinCo B had been investing for eighteen months for a new claim processing platform. It actually piloted it in a single field office about a week before the sale of P&C business was announced. Then FinCo B actually saw FinCo A's system, which was what FinCo B was trying to build. FinCo A already had that operation in place for several years. It was very obvious what the right choice was from system standpoint. It became a problem of maintaining continuity of businesses and services instead of a system integration problem. It was further complicated by organizational design of the merged company and data migration issues. It quickly became very obvious that issues were not technical at all. For claim organization, it was more a matter of IT alignment with business issue.

The personal line business in FinCo A incurred much longer, more significant underlying technology issues because they chose a more complicated integration process, best of breed technology strategy. There was always a big debate whether the best of breed is a right choice. There was a guess that strategy chosen by the personal line business was the result of the stronger personal presence of FinCo B management. The individual heading the personal line business was from FinCo B.

The success of the integration was measured by a scorecard, which was really a combination of services related metrics. Part of the strategy was to consolidate the service center and at the same time migrating new business from one of the systems to another's. So the scorecard metrics were basically a combination of "Did you finish on time?", "How do you measure customer service so there is no interruption?", and cost savings related to that. But it was very oriented to service metrics.

There were two aspects of the cost, one was project cost and the rest was synergy of the integration related saving. Synergy was measured by reduction of development cost, reduction of head count, reduction of operation cost, consolidation of platforms, and savings from moving businesses to more efficient running processes.

Where in claim organization, it was very apparent within a certain number of weeks, which system the company was going to move to. You can choose either get on the program or not. There were not many opportunities to hang on to go to the old way of FinCo B system. The integration of claim service was finished about 14 months after the deal. The integration was a tremendously successful by all metrics.

The personal line business was slow because the much more controversial strategy they chose. It took a much longer time to execute. The experience throughout the process was very expensive and painful. There was much stress between the business and IT organization. There were always questions whether or not that was the right decision. From a culture and distraction point of view the integration was always viewed with

question. Had personal line chosen one system over another and more aggressively migrated, they might just have made some investment to make the system work. Because they did not feel either platform was adequate, they choose the best of breed approach. But the best of breed approach did cost more than a harmony approach, such as absorption approach.

Strategic Intent and Business Function Support Level Analysis

Strategic Intent and Integration Approach:

Merger Approach	Acquisition	Merger
Over Capacity	H1: Absorption MATCH	H2: Best of breed
Expand Market or Product	H3: Best of breed	H3: Best of breed

Claim Department:

	A High	Tie			T High	A doesn't have or A completely inadequate
		Both High	Both Low	Both completely inadequate		
Absorption	A MATCH	A	A	New	A	T
Best of breed	A	A	New	New	T	T

Personal line department:

	A High	Tie			T High	A doesn't have or A completely inadequate
		Both High	Both Low	Both completely inadequate		
Absorption	A	A	A REC	New	A	T
Best of breed	A	A	New USED	New	T	T

BP/Amoco

(Early and later cases) (Patton 2004, *BBC News 1998*, Worthen 2002)

In 1998, the UK-based oil company British Petroleum (BP) acquired Chicago-based Amoco in a deal of \$52b. The deal made BP become one of the giants in the industry. BP aggressively seeks growth by acquiring more companies. Starting from 1999, BP has acquired a series of companies, including U.S.-based Atlantic Richfield, British lubricant company Burmah Castro, Germany's Veba Oel.

Case Details

John Browne, the CEO of BP, set the tread of ruthless cost-cutting (Patton 2004) for IT services of BP and commitment to outsourcing. By contrast, Amoco developed most its application in-house, and IT staff feared losing their jobs.

“You have to make it crystal clear who is in charge when you are integrating two companies' systems,” says Darukhanavala, BP's vice president and CTO (Patton 2004). *“There are no right or wrong answers, but you need to make a call, or you will be arguing for years.”*

The strategic intent of BP/Amoco was overcapacity. As John Browne mentioned, *“In such a climate the best investment opportunities will go increasingly to companies that have the size and financial strength to take on those large-scale projects that offer a truly distinctive return (BBC News 1998).”* So the key concern of the management team was to integrate the operation as soon as possible while keep the cost down.

The IT integration for BP was not an easy task. It needed to integrate both the business systems as well as the different technical systems used by both companies. “*There was a lot of debate to gain consensus,*” says Phiroz P. Darukhanavala (Worthen 2002), BP’s vice president and CTO and the man who oversaw the integration of the two companies, and it got the two sides nowhere because of significant philosophical differences. There were many debates about many different issues, such as outsourcing strategy and which system should be picked. Integration went slowly until dominant partner BP decided to impose its own philosophy on the combined entity.

After months of struggling, BP, the larger of the two companies, decided to use its own system as the dominant system, and only kept Amoco’s SAP system for the US operation. The main reason is BP was working towards to consolidate all its ERP systems and Amoco had one of the largest SAP systems in the world.

Strategic Intent and Business Function Support Level Analysis

Strategic Intent and Integration Approach (Early):

Merger Approach	Acquisition	Merger
Over Capacity	H1: Absorption	H2: Best of breed USED
Expand Market or Product	H3: Best of breed	H3: Best of breed

Overall Business Function Support Level and Integration Approach (Early):

	A High	Tie			T High	A doesn't have or A completely inadequate
		Both High	Both Low	Both completely inadequate		

Absorption	A MATCH	A	A	New	A	T
Best of breed	A	A	New	New	T	T

Strategic Intent and Integration Approach (Later):

Merger Approach	Acquisition	Merger
Over Capacity	H1: Absorption MATCH	H2: Best of breed
Expand Market or Product	H3: Best of breed	H3: Best of breed

Overall Business Function Support Level and Integration Approach (Later):

	A High	Tie			T High	A doesn't have or A completely inadequate
		Both High	Both Low	Both completely inadequate		
Absorption	A MATCH	A	A	New	A	T
Best of breed	A	A	New	New	T	T

LifeCo A/LifeCo B

(Interview with senior IT Manager, LifeCo A)

I interviewed senior manager at LifeCo A, who oversaw the company's IT integration with LifeCo B Life and Annuity. According to the manager at the time of merger, there were existing 625 applications in LifeCo B's infrastructure. It was difficult to get information prior to acquisition about the IT system information. Business was just usual until the deal was closed. In this case the acquiring company was larger than acquired company. The 625 applications would not exist at the end of the integration. However LifeCo A still had 375 applications at the time of interview.

Case Details

Crystal Clear Message from Senior Management

Right at the announcement of deal, LifeCo A had to decide what they were going to do. How did it make the decision whom to keep, whom to let go? The guys from LifeCo B were considered more skilled, more talented, and experienced than the guys in LifeCo A. The CEO of the LifeCo A said "*Make no mistake about it. This is acquisition. They have to prove their value and they can add value to our team. And we can bring them on. If they can not add value, we can not bring them on.*" It defined the basic theme of the integration. It may be not good to say that LifeCo A conquered LifeCo B, but he said up front that. "*It is that LifeCo A acquires the company. LifeCo A decided what is going to happen.*" The message sent from executive manager level made many decision later on much easier to make. LifeCo A never got into the discussion how to select the applications from which side of the companies.

Keep Business Running

The primary goal was to keep the business running. Though the final goal was to integrate the LifeCo B system into LifeCo A's infrastructure, the challenge was that the 625 applications of LifeCo B were running on its parent company, FinCo's, infrastructure. How to disentangle them from shared LifeCo B's infrastructure and understand the infrastructure and requirement for those applications to run on LifeCo A's infrastructure was a big challenge. LifeCo A ended up having to run the LifeCo B applications on FinCo's infrastructure based on a transition service agreement, which was a two years agreement. At the end of that, all the applications are supposed to be removed. The senior level of management wanted to make sure LifeCo A did not pay too much on FinCo's platform and protect the proprietary information of LifeCo A. Some of the issues came up when LifeCo A ran its own application on FinCo's infrastructure, such as disaster recovery and data integrity.

Integration Process

The final goal was to integrate LifeCo B's 625 applications into LifeCo A's infrastructure as soon as possible. And what LifeCo A found was that the integration has to be done at an appropriate timeframe while those applications keep running on FinCo's infrastructure. LifeCo A continued bring those applications in. LifeCo A set a very clear priority what systems should be integrated first, which should be integrated later. It classified services into three categories:

- Strategic processes included product planning;

- Core processes included client acquisition, billing information, distribution services and customer services;
- Support processes included finance, HR, legal.

Support services had to be done first, such as email and HR had to be in place at first because people must communicate each other and got paid.

How to Measure Success?

The first thing to look at was to have an integrated system. It meant that LifeCo A customers and LifeCo B customers should be able to use same 800 number to get the services and so on. Second thing was from IT standpoint, applications had to be examined. How many applications were going to go away? At the end of day, for any application did not go away, more money spent on operation and support would be less money spent on growth and innovation.

How did integration maximize the result? The merger brought 5.1 billion additional revenue, that was what LifeCo A were buying, \$5.1b top line. LifeCo A had to see the increase of earnings. The incremental cost of servicing the 5.1 billion dollars business should be less than the cost servicing the \$36b business that LifeCo A was doing. LifeCo A should be able to do the additional \$5.1b business more efficiently because the core functions were already there. The questions should be asked is: “Is the revenue done in a more efficient way?” the manager concluded “*If we are able to take out the existing profit and get the delta of profit of the new business, we are able to tell what the profit margin*

is for the additional \$5.1b business. That's a clear indication of a success of the acquisition.”

Three Key Points for the Integration

There were three key success factors for the integration process. First, create good application portfolio. The information of the applications was hard to acquire before the deal and the acquirer needed to have a good application portfolio to support business functions. Second, there were huge people management issues, so LifeCo A needed to communicate a message and get it out quickly. And for those senior guys, they did not want to waste the opportunity for a long time. They figured it out quickly and they found a way out. LifeCo A prepared a good package and made it clear that there is no room for you now where there was before the merger. Third, be prepared for unexpected interruption, such as government regulation, the concern of local government. The company had to adjust quickly to response those changes.

At the first look the approach of LifeCo A is bold. It insists on absorption approach for all its acquisitions and the senior management made that clear that “LifeCo A decided what is going to happen.” Why does absorption work for LifeCo A? First, it is aligned with business strategy. Second, LifeCo A’s IT system is able to support to on-going business. So they have the confidence to say that they are able to run the business successfully.

Strategic Intent and Business Function Support Level Analysis

Strategic Intent and Integration Approach:

Merger Approach	Acquisition	Merger
Over Capacity	H1: Absorption MATCH	H2: Best of breed
Expand Market or Product	H3: Best of breed	H3: Best of breed

Overall Business Function Support Level and Integration Approach:

	A High	Tie			T High	A doesn't have or A completely inadequate
		Both High	Both Low	Both completely inadequate		
Absorption	A MATCH	A	A	New	A	T
Best of breed	A	A	New	New	T	T

Commonwealth Bank of Australia (CBA) /State Bank of Victoria (SBV)
(Early and later cases) (Johnson and Yetton 1996)

This is typical case where “best of breed” approach didn’t work and had to transition to absorption. The description below was extracted from the case study of Johnson and Yetton (1996)

Case Details

A national bank, the Commonwealth Bank of Australia (CBA), formally acquired the assets of an Australian regional bank, the State Bank of Victoria (SBV), for \$A1.6 billion in January 1991.CBA was one of Australia’s largest, with 1400 branches across Australia, 40 000 staff, and assets of \$A67 billion, and at that time was fully owned by the Australian Federal Government. SBV was the largest in the State of Victoria, with 527 branches in that state, 2 million customer records, 12000 staff (including 1000 IT systems staff), and assets of \$A24 billion, and was owned by the Victorian State Government . It was Australia’s largest bank merger, and significant on a global scale. To make it clear, it was a case of acquisition.

From its due diligence exercise on the regional bank during 1990, the national bank had identified integrating the computer systems and IT operations of the two banks as a major source of potential value from the merger.

There was a significant difference between the IT operations of the two banks. First of all, these were geographically separated. National bank’s IT operations were based in Sydney, New South Wales, and the regional bank’s IT operations were located 1000 km away in

Melbourne, Victoria. In this context, there were four significant differences between the two banks' IT functions.

1. Strategy -- They had quite different IT strategies, SBV being business driven, oriented to meeting the demands of the business units, while CBA IT department was traditionally quite separate from the business and more technology-focused.
2. Technology -- The IT systems of the banks were built around different, and incompatible, technology platforms.
3. Organization Structure -- Project management structures and styles were very different. SBV's IT organization was decentralized, team-based management. But IT management processes in the CBA were more hierarchical and formal.
4. Human Resources – The IT staffing policy and culture was different in two banks. While SBV focused on recruiting young, educated IT professionals from the outside, the promotion of people was performance based. The CBA had a policy of internal recruitment and training and the promotion was more position based.

The first step of the integration was to build a bridge between to banks' systems so a customer from either bank can access the information. The critical issue was not to lose any customers.

The CBA initially pursued a “best of breed” approach in order to identify best practice in each area of the two banks' IT departments, which could then usefully be adopted as the basis for building a new integrated IT structure. This ‘best of breed’ approach to integration required a lengthy process of meetings between each bank’s specialist IT areas in an attempt to identify, analyze and then adopt what was considered to be ‘best’

from each area. The differences between the two IT configurations made this difficult. It was further worsened by the inevitable emotional and political atmosphere of the takeover, and disagreements between the CBA and SBV's IT managers. The leaving of several senior managers also added uncertainty and delay to the process. The best of breed approach itself became a problem because it led to delays in planning and implementation.

Increasingly, the CBA faced pressures to complete integration. Firstly, the 'best of breed' approach was thus replaced by an 'absorption' approach, converting the SBV's IT operations into the national bank's existing IT architecture and systems. The integration was fully completed on schedule in April, 1994, the IT rationalization and integration contributed significant value to the merged bank.

Strategic Intent and Business Function Support Level Analysis

Strategic Intent and Integration Approach (Early):

Merger Approach	Acquisition	Merger
Over Capacity	H1: Absorption REC	H2: Best of breed USED
Expand Market or Product	H3: Best of breed	H3: Best of breed

Strategic Intent and Integration Approach (Later):

Merger Approach	Acquisition	Merger
Over Capacity	H1: Absorption MATCH	H2: Best of breed
Expand Market or Product	H3: Best of breed	H3: Best of breed

Overall Business Function Support Level and Integration Approach (Later):

	A High	Tie			T High	A doesn't have or A completely inadequate
		Both High	Both Low	Both completely inadequate		
Absorption	A MATCH	A	A	New	A	T
Best of breed	A	A	New	New	T	T

ChemCo A/ ChemCo B (A)

(Interview with senior IT executive at ChemCo; ChemCo A Press Release; Published case study)

ChemCo A announced that it had completed the acquisition of ChemCo B's European emulsions and global emulsion powders business and would assume control of the business as of January 1, 2003. ChemCo A announced in September its intent to purchase this business for €147 million. (ChemCo A Company Report 2002)

Case details

The acquisition built on ChemCo A's strong position in the acetyls chemical chain and would be part of the company's Acetyl Products segment. The new business would enable ChemCo A to offer a comprehensive range of value-added emulsions and emulsion powders that serve as primary ingredients in quality surface coatings, adhesives, non-woven textiles and other applications.

ChemCo A traditionally ran itself like a holding company, which let five business units run independently. Then the management found it was very difficult to act the company as whole. Chemical industries were in a difficult time, cost of raw materials is up and revenues are driven down. ChemCo A was behind the competitors: Dow and DuPonts.

The implementation of integrated SAP system to improve the operation efficiency became critical to the survival of the company. Under the leadership of the senior IT executive of ChemCo A, the company rolled out an ambitious integration project,

OneSAP, to integrate 13 SAP systems of the company into one. When ChemCo A acquired part of ChemCo B in 2002, it became obvious that absorption was the only option because OneSAP was able to support the operation of merged and company. But if ChemCo A did not implement the OneSAP project, the newly acquired ChemCo B would be left to run independently without realizing the synergy of acquisition.

ChemCo A successfully integrated the part of ChemCo B's business into its OneSAP platform.

Strategic Intent and Business Function Support Level Analysis

Strategic Intent and Integration Approach:

Merger Approach	Acquisition	Merger
Over Capacity	H1: Absorption MATCH	H2: Best of breed
Expand Market or Product	H3: Best of breed	H3: Best of breed

Overall Business Function Support Level and Integration Approach:

	A High	Tie			T High	A doesn't have or A completely inadequate
		Both High	Both Low	Both completely inadequate		
Absorption	A MATCH	A	A	New	A	T
Best of breed	A	A	New	New	T	T

OilCo 2001

(Interview with a senior IT manager of OilCo A; Published case study)

I interviewed a senior manager of IT department of a major oil company, OilCo A. The company had two mergers. First one is the merger with other two oil companies, OilCo B and OilCo C in 2001. I will discuss another merger in next case.

Case Details

When OilCo A merged with OilCo B and OilCo C in 2001, the message from the executive management was clear: "*Oil companies live or die by how well they contain costs and achieve economies of scale.*" The strategic intent of the merger was clear: overcapacity.

The objective of the merger was to reduce the operational systems. Many mergers fail because the combined company does not have a unified culture. So, OilCo A did a lot of things about merger to unify the culture. OilCo A actually chose the merger partner based on corporate culture. OilCo A deliberately selected staff of the combined company in equal amounts, including senior executive management positions. OilCo A made clear that OilCo B joining the OilCo A was not acquisition, it was merger. So when they were doing application selection, OilCo A would not say for application selection it was only going to choose OilCo A's system. It would be exactly the wrong thing to do in terms of sending a message of merger for building a company. The key point of best of breed was to show respect. That is, the IT Integration team must really support the culture goal of the merger.

In fact, the integration approach for 2001 merger was best of three. For each area, the integration team checked what OilCo A is doing, what OilCo B is doing, what OilCo C was doing and studied the characteristics of systems and features and solution used by the three companies. And the team also saw if there was an obvious solution to use best of three going forward. In most cases, it was not a difficult selection process. There were not problems for most of systems. In some cases, the team made mistakes, and accepted it.

For 2001 case, about 20-30% of saving was from IT. The speed of the 2001 merger was a very interesting case study because it is amazing for a big company like OilCo A to integrate its systems so quickly.

The integration team started from best of three approaches by first looking into the foundation technologies, and then it walked its way up the stack. So at any given point in the stack, there were many decisions that had been already made. The team knew something about network topology, it knew something about desktop operation system, and it also knew how decision was made. When it came to the collaboration tool, the team asked the question whether all three choices were able to run on the infrastructure of merged company. It would drop the choice which did not fit into the strategic infrastructure. It only kept those choices fitting into the strategic infrastructure. It started from lower stack and continued build towards coherent system on the top.

Strategic Intent and Business Function Support Level Analysis

Strategic Intent and Integration Approach:

Merger Approach	Acquisition	Merger
Over Capacity	H1: Absorption	H2: Best of breed MATCH
Expand Market or Product	H3: Best of breed	H3: Best of breed

OilCo 2005

(Interview with a senior IT manager at OilCo A)

I interviewed a senior manager of IT department of a major oil company, OilCo A, about the firm's acquisition of a smaller oil company, OilCo D, in 2005.

Case Details

The relative size was the driver for the integration approach. OilCo A was ten times bigger than OilCo D. There was no need to change 90% of the business of OilCo A for the 10% percent of OilCo D. The objective of the case was to reduce the number of operational systems. Although many mergers fail due to culture issues, these issues were not addressed in this acquisition. In this case, if somebody was saying that it is merger of equals, it would be insulting. OilCo D was joining OilCo A. It should know how OilCo A worked. So it was very important that IT message matched the management message.

For 2005 case, the cost-savings from business was big, the cost-savings of IT was minimal. At the first 60 days of merger, the acquiring company wanted everything of the acquired company running on its platform.

In 2005 case, because absorption was the approach, OilCo A's system was used. If the OilCo D could not move the acquired company's system quickly into OilCo A's infrastructure in some cases, the company just kept it separate for a little bit. Sometimes, even though the company knew how to integrate the acquired systems, it still wanted to wait because it knew probably within 6 months the technology would be upgraded. So

there were a few exceptions. Waiting avoided the cost and difficulty of migrating systems only to migrate them again shortly afterward.

Strategic Intent and Business Function Support Level Analysis

Strategic Intent and Integration Approach:

Merger Approach	Acquisition	Merger
Over Capacity	H1: Absorption MATCH	H2: Best of breed
Expand Market or Product	H3: Best of breed	H3: Best of breed

Overall Business Function Support Level and Integration Approach:

	A High	Tie			T High	A doesn't have or A completely inadequate
		Both High	Both Low	Both completely inadequate		
Absorption	A MATCH	A	A	New	A	T
Best of breed	A	A	New	New	T	T

HP/Compaq

(Interview with a partner of consulting company C; HP Public Document 2003;

Burgelman and McKinney 2005; CIO 2002)

HP/Compaq was the largest merger in technology history. The merged company had \$70 billion in assets. New HP was the number one global player in servers, imaging & printing, number two in access devices (PCs & hand-held device), as well as Top 3 player in IT services, storage and management software.

Case Details

“Adopt and go” worked well for HP/Compaq case. One of the fundamental things about the “adopt and go” philosophy was that although the company may lose a little bit on optimized outcome because it was not going to take the best of both, it just took one of them to run it. The big compensating factor was that the integration team could get through integration much quicker.

A fundamental principle was that the integration team had to stick to the decision making, and nobody can question a decision after it is made. For HP/Compaq deal, there was full-time decision acceleration process going on every day of the week. When decision makers chose systems, they really did not think too much about if the system was from HP or Compaq. Having the management team be a blend of both firms made things much easier too.

The integration of HP/Compaq was claimed as a huge success. It did not receive any complaint calls at the cut-over day, overall customer satisfaction was high and the cost

saving synergy realized was \$3.7 billion, which was much higher than expected and realized one year earlier.

Strategic Intent and Business Function Support Level Analysis

Strategic Intent and Integration Approach:

Merger Approach	Acquisition	Merger
Over Capacity	H1: Absorption	H2: Best of breed MATCH
Expand Market or Product	H3: Best of breed	H3: Best of breed

St. Paul Companies/Travelers Property & Casualty (M)

(O'Donnell 2005, Bresnick-Kendler, Peggy 2004)

The St. Paul Companies/Travelers was announced in November 2003, the \$16 billion merger formed the third-largest publicly traded P&C company, with a comprehensive product and geographical footprint. According to CIO Bill Bloom, from an IT perspective, the union of the two companies involved 270 separate projects, 41,000 desktops, 3,500 servers, 170 terabytes of data and 560 million images. “*We merged 290 field offices, two sets of data and voice networks, two e-mail systems, and two voicemail systems,*” CIO Bill Bloom said (O'Donnell 2005)

Case Details

The merger of St. Paul Companies and Travelers P&C business happened with increased industry focus on profitability over market share as companies see the potential strategic value of increased scale. The strategic intent of the merger was to deal with overcapacity, reduce operational cost and realize economy of scale. And the merger was a typical “merger of equals”. Matthew Josefowicz, manager, Insurance Group, Celent, said “*We may also see more ‘mergers of equals’ like St. Paul/Travelers, as companies see the potential strategic value of increased scale.*”(Bresnick-Kendler, Peggy 2004)

The idea of Bloom was to have “a single way of doing things.” The temptation to keep the value of both systems is strong. But Bloom strongly enforces “*Getting to one.*” Suite of application approach was chosen over the traditional best of breed approach to achieve speed and simplicity.

The approach allowed some best of breed practice to happen. For example, the merged company chose Travelers' personal lines system because this line of business did not exist in St. Paul's portfolio. However, St. Paul had a very effective rule-based claim processing engine. What the integration team did is to finish the merger first and load the entire claim data into the Travelers system, then kept a small group people from both St. Paul and Travelers to see how the St. Paul's claim engine could be integrated.

Much of the combined company's basic technology integration had been achieved by Jan. 1, 2005. Corporate systems, such as HR, general ledger, accounts payable, expense processing, purchasing and a plethora of small systems were completed on or about that date. The integration continued ahead of schedule. And the integration helped the growth of the company. The St. Paul Travelers Companies, Inc. ("St. Paul Travelers," NYSE:STA) reported record net income for the current quarter of \$1.069 billion, or \$1.59 per basic share and \$1.52 per diluted share, compared to a net loss of \$275 million, or \$0.42 per basic and diluted share, in the prior year quarter. (SAINT PAUL News Release 2005)

Strategic Intent and Business Function Support Level Analysis

Strategic Intent and Integration Approach:

Merger Approach	Acquisition	Merger
Over Capacity	H1: Absorption	H2: Best of breed MATCH
Expand Market or Product	H3: Best of breed	H3: Best of breed

Overall Business Function Support Level and Integration Approach:

	A High	Tie			T High	A doesn't have or A completely inadequate
		Both High	Both Low	Both completely inadequate		
Absorption	A	A MATCH	A	New	A	T
Best of breed	A	A	New	New	T	T

Business Function Support Level and Integration Approach (Personal Line Claim):

	A High	Tie			T High	A doesn't have or A completely inadequate
		Both High	Both Low	Both completely inadequate		
Absorption	A	A	A	New	A	T MATCH
Best of breed	A	A	New	New	T	T

First Union/CoreStates

(Anthes and Nash 2000, Hoffman 2004)

The rapid and successful IT integration of First Union and CoreStates did not help company to grow business.

Case Details

The strategic intent of the merger was to expand market. When First Union paid a very high price \$17b (5.3 times the book value) to buy the Pennsylvania banking franchise, CoreStates, in late 1997, it was under the pressure to meet Wall Street's expectation to cut cost.

When First Union acquired CoreStates, IT planning was carried out early on -- within 10 days of the announcement (Popovich 2001). Within 45 days, management team was chosen and which systems to use were targeted. First Union's IT strategy was simple: The company gave preference to its own systems over those of the companies it acquires. 100 branches were closed and thousands employee laid off. And many employees were deployed from customer-facing position to other more profitable businesses, such as selling insurance and investment. The customers of CoreStates used to talk to customer services representatives face to face and now they are left to deal with ATM machines or call centers.

The integration was an apparent success from an IT cost-cutting standpoint. The integrated IT system met the company's cost-saving plan. But First Union underestimated the complexity of the CoreStates commercial systems. According to published reports at

the time, First Union lost nearly one-fifth of its CoreStates customers. In addition, First Union lost 9% of CoreStates' deposits and 14% of its loan business as a result of the defections, analysts said. First Union sold 92 branches to another regional bank, Sovereign Bancorp Inc, for \$318M.

First Union/CoreStates realized short term cost saving from quickly integration of two banks' systems and closing branches, but earnings of the company in 1999 were approximately 15% lower than originally forecasted. From the integration point of view, the integration was successful. But it did not help business to grow. It simply means successful IT integration can not make a merger be successful if it is not linked to an effective business strategy.

The strategic intent of First Union was to expand market, but under the pressure of Wall Street, First Union adopted a wrong approach to integrate, which resulted in the failure of the integration.

Strategic Intent and Business Function Support Level Analysis

Strategic Intent and Integration Approach:

Merger Approach	Acquisition	Merger
Over Capacity	H1: Absorption USED	H2: Best of breed
Expand Market or Product	H3: Best of breed REC	H3: Best of breed

Business Function Support Level and Integration Approach:

	A High	Tie			T High	A doesn't have or A completely inadequate
		Both High	Both Low	Both completely inadequate		
Absorption	A MATCH	A	A	New	A	T
Best of breed	A	A	New	New	T	T

Chase/Chemical Bank

(CSC 1997; Dutheoit, Dreischmeier, and Kennedy 2004; Giera 2005A; Anthes and Nash 2000; LEADERS 2005)

Case Details

The huge 1996 merger between Chemical Banking Corp. and The Chase Manhattan Bank NA was “*close to a grand-slam home run*,” according to Bill Bradway, research director at Meridien Research Inc. “*When you consider the scale at which the two organizations were at, the complexity of their business models, the technology they had to sort through - and to do it as efficiently as they did - that's a real positive commentary*,”

(ComputerWorld 2000)

The IS integration team proposed a new application selection process. The process examined a group of application at a suite level or sub-suite level, roughly equivalent to business departments or processes. By selecting applications at this “higher” level, the complexity and risk of the integration process were reduced (CSC 1997). According to the CSC case study, 60 percent of application suites were easy to choose. But for some application suites, the selection was tough. So a set of criteria had been chosen, including business process support level, scalability, extra features needed, and lifecycle cost profile, fit with entire infrastructure.

Some of the key facts of the integration are (Giera 2005A):

1. Management team selected and announced within 30 days
2. Applications grouped in 67 distinct “suites”

3. Whole systems chosen
4. Used only six criteria for selection
5. Application suites selected within 6 months

The estimated cumulative IT cost savings at Chase reached nearly \$1 billion. “*Chase closed half of the data centers the two banks ran, which accounted for 85% of the total IT cost savings in the first two years,*” Richard F. Mangogna, CIO for wholesale banking, said (Anthes and Nash 2000). More recently, the bank started a second wave of system consolidations.

In 1995, the last full year before the merger, Chase and Chemical had combined operating earnings of \$2.9 billion and a combined average return on equity of 15.8%. For last year, Chase reported earnings of \$5.4 billion and return on equity of 24.2% - approximately a 50% increase in both these key performance measures. And while it was difficult to quantify the precise impact that IT has had on the bottom line, the cost cuts and operational improvements are evident.

Strategic Intent and Business Function Support Level Analysis

Strategic Intent and Integration Approach:

Merger Approach	Acquisition	Merger
Over Capacity	H1: Absorption	H2: Best of breed
Expand Market or Product	H3: Best of breed	H3: Best of breed MATCH

Ameritrade/Datek (A)

(McCormick 2003)

Ameritrade was the largest internet-only brokerage. It purchased Datek in 2001 for \$1.6b and increased Ameritrade's number of accounts by 50%, to 3 million from 2 million.

Case Details

The strategic intent of the merger was overcapacity. It was an acquisition. Another reason that Ameritrade eyed Datek was its innovative approach to online trading. Ameritrade was concerned with running a reliable and steady operation; Datek was interested in developing innovative tools for stock traders. This included Streamer, which allows customers to have a wide range of quotes displayed continuously on their screens, along with charts and trading-activity reports.

The three key pieces of technology for both Datek and Ameritrade were:

1. Web sites, which take customer instructions
2. Back-office systems, which coordinate applications and databases to verify the identity of customers, take their orders and execute the transactions with the right stock exchange; and
3. Internal clearing systems, which make sure customer accounts are up to date.

Ameritrade did comparison for each category of applications. And they found that “*So, from a risk-mitigation point of view, you'd rather move a million [accounts] than move two [million] over to a new system* (McCormick 2003).” So they chose Ameritrade system as dominant system for internal clearing systems. But for the web sites, they

created new websites which integrated many features of Datek's innovative web interface. It really became a best of breed approach. The company experienced lots of pain when it melding ordering systems. The CIO of the merged company declared it was painful but it was worth of effort because new ordering system enabled Ameritrade to process orders faster, which was a competitive advantage for online trading.

Strategic Intent and Business Function Support Level Analysis

Strategic Intent and Integration Approach:

Merger Approach	Acquisition	Merger
Over Capacity	H1: Absorption REC	H2: Best of breed USED
Expand Market or Product	H3: Best of breed	H3: Best of breed

Sallie Mae/ USA Group

(Brown, Clancy, and Scholer 2003)

The Sallie Mae case was interesting because of its mixed strategic intent. Sallie Mae acquired USA Group in 2000 for three main reasons:

1. Expand Product -- USA Group's complementary student loan will complete Sallie Mae's ability provide entire student loan service. It is the primary strategic intent.
2. Economy of Scale -- The combined operation enable Sallie Mae to realized "Economy of Scale".
3. Acquire R&D Capability -- Sallie Mae could benefit from USA Group's software products and IT expertise. USA Group was perceived as a leader in this field.

Sallie Mae's IT organization had outsourced development of a couple of strategic applications and had not finished the integration for its last two acquisitions. USA Group had established a good track record of developing complex applications and keeping the operating cost low.

Sallie Mae broke the applications into two categories, customer facing applications and back-office applications, plus other decisions such as data center relocation. It chose USA Group IT leadership because of its superior track record, which also set the tone who would dominate the IT integration. It chose Class system, a loan servicing application of Sallie Mae, because of its scalability. For the core transactional system, system could function well was more important. It chose PeopleSoft because its advanced technology.

Was it a success? Did they do application suite or detailed best of breed?

For this case, it is important to identify the right primary strategic intent because it is going to determine the primary integration approach. When the merger has multiple strategic intents, such as this case, company has to focus on the primary strategic intent, as well as other strategic intents. Generally, it may lead to a best of breed approach.

Strategic Intent and Business Function Support Level Analysis

Strategic Intent and Integration Approach:

1. Expand Market or Product

Merger Approach	Acquisition	Merger
Over Capacity	H1: Absorption	H2: Best of breed
Expand Market or Product	H3: Best of breed MATCH	H3: Best of breed

2. Overcapacity

Merger Approach	Acquisition	Merger
Over Capacity	H1: Absorption REC	H2: Best of breed USED
Expand Market or Product	H3: Best of breed	H3: Best of breed

References

- Anthes, Gary H. and Nash, Kim S. (2000), "Cashing in on IT?" ComputerWorld, Oct 02, 2000
- BBC News (1998), "Business: The Company File BP and Amoco in oil mega-merger", Tuesday, August 11, 1998 Published at 16:33 GMT 17:33 UK
- Berman, Dennis K. and Singer, Jason (2005), "Big Mergers Are Making A Comeback as Companies: Investors Seek Growth", Wall Street Journal
- Bower, Joseph L. (2001), "Not All M&As Are Alike--and that Matters", HBR January-February 1995: 92-101
- Bresnick-Kendler, Peggy (2004), "Technology and the Urge to Merge", FinanceTech, February 19, 2004
- Brown, Carol V., Clancy, Greg and Scholer, Rebecca J.(2003), "A Post-Merger Integration Success Story: Sallie Mae", MIS Quarterly Executive 2(1)/March 2003: 15-27
- Burgelman, Robert A. and McKinney, Webb (2005), "Managing the Strategic Dynamics of Acquisition Integration: Lessons from HP and Compaq", Research Paper No. 1907, Stanford University, GSB
- Chang, Richard A., Curtis, Gary A. and Jenk, Justin (2001), "Keys to the Kingdom: How an Integrated IT Capacity Can Increase Your Odd of M&A Success", Accenture Consulting Report
- CIO (2002), "Q&A with Robert Napier, CIO at Hewlett-Packard", CIO Magazine, Sep 15, 2002
- CIO Insight (2005), "Diagnosing Your Organization", CIO Insight Whiteboard
- Consulting A (2005), interview with a partner of consulting company A
- Consulting B (2005), interview with a partner of consulting company B
- Consulting C (2005), interview with a partner of consulting company C
- CSC Foundation Report 114 (1997), "Managing IT through Mergers and Acquisitions"
- Deloitte Consulting (2000), "Solving the Merger Mystery: Maximizing the Payoff of Mergers and Acquisitions", Deloitte Consulting study

Duthoit, C., Dreischmeier, R. and Kennedy, S. (2004), "Clusters and Nuggets: Mastering Postmerger IT Integration in Banking", Boston Consulting Group Report

Giacomazzi, F., Panella, C., Pernici, B. and Sansoni, M. (1997), "Information systems integration in mergers and acquisitions: A normative model", *Information & Management* 32 (1997): 289-302

Hoffman, Thomas (2004), "Methodical merger: Wachovia and First Union", *ComputerWorld*, March 29, 2004

Giera, Julie (2005A), "ForrTel: Mergers and Acquisitions: Best Practices", Forrester Research Report, 2005

Giera, Julia (2005B), "The Impact of M&As on IT" Forrester Research Report

Glasser, Perry (1999), "Secrets of Mergers Monsters", *CIO Magazine*, April 15, 1999

Harding, D. and Rovit, S. (2004), "Mastering the Merger", Harvard Business School Press

HP Public document (2004), "Managing a successful integration: lessons learned from the HP/Compaq merger"

Investopedia (2006), "The Basics of Mergers and Acquisitions", *Investopedia.com*

Johnson, Kim D. and Yetton, Philips W. (1996), "Integrating information technology divisions in a bank merger Fit, compatibility and models of change", *Journal of Strategic Information Systems*

Jonk, G. and Vallerien S. (2005), "Not so fast", *AT Kearney, Executive Agenda*, 8(2): 5-14

KPMG Transaction Service (1999), "Unlocking Shareholder Value: Keys to Success"

KPMG Transaction Service (2001), "WORLD CLASSTRACTIONS: Insight into creating share holder value through mergers and acquisitions"

LEADERS (2005), "Master of the Merger - An Interview with William B. Harrison, Jr., Chairman and Chief Executive Officer, JPMorgan Chase & Co., New York", VOLUME 28, NUMBER 3, LEADERS MAGAZINE, INC.

MacMillan, Michael (2001), "KNITTING IT TOGETHER", *Computing Canada* 05/18/2001, 27(11): 22-23,

McCormick, John (2003), "Ameritrade: Hand in Hand", *Baseline*, November 1, 2003

Menge, Wilco (2005), "Pre-Merger IT strategies", 3rd Twente Student Conference on IT, Enschede June, 2005

O'Donnell, Anthony, (2005), "Getting to One", FinanceTech, Feb 21, 2005

OilCo A (2006), Interview with senior IT manager of OilCo A

Popovich, Steven G (2001), "MEETING THE PRESSURES TO ACCELERATE IT INTEGRATION", Mergers & Acquisitions: The Dealmaker's Journal, Dec, 2001, 36(12)

Patton, Susannah (2004), "In Sync with His CEO", CIO Magazine, Apr. 15th, 2004

Robbins, Stephanie S. and Stylianou, Antonis C. (1999), "Post-merger system integration: the impact on IS capability", Information & Management 36 (1999): 205-212

Shpilberg, D., Berez, S. and Israelit, S. (2002), "Merger Integration Blueprint", CIO Insight, July 19th, 2002

Sisco, Mike (2005), ITBMC, "IT Due Diligence in M&As: Minimize Risk and Maximize Opportunity", Executive Report, 2(2),

St.Paul Travelers (2005), St.Paul Travelers News Release, July 28, 2005

Stylianou, Antonis C., Jeffries, Carol J. and Robbins, Stephone S. (1996), "Corporate mergers and problems of IS integration", Information & Management 31(1996): 203-212

Viner, N., Rhodes, D., Dumas, Didier R. and Ivanov, S. (2000), "Making Mergers Work: Turning a Big Deal into a Good Deal", Boston Consulting Group Report

Walsh, Mark (2006), Principal of Deloitte Consulting, "The Missing Piece of the M&A Puzzle", working paper

Wijnhoven, F., Spil, T., Stegwee, R. and Tjiang A Fa, R. (2005) "Post-merger IT integration strategies: An IT alignment perspective", Journal of Strategic Information Systems xx(2005):1-24

Worthen, Ben (2002), "Change Management – Mergers and Acquisitions", CIO Magazine, Aug 15th, 2002

Yin, Robert K., "Case Study Research – design and methods", Third edition