IfM

UNIVERSITY OF CAMBRIDGE

Centre for International Manufacturing

briefing

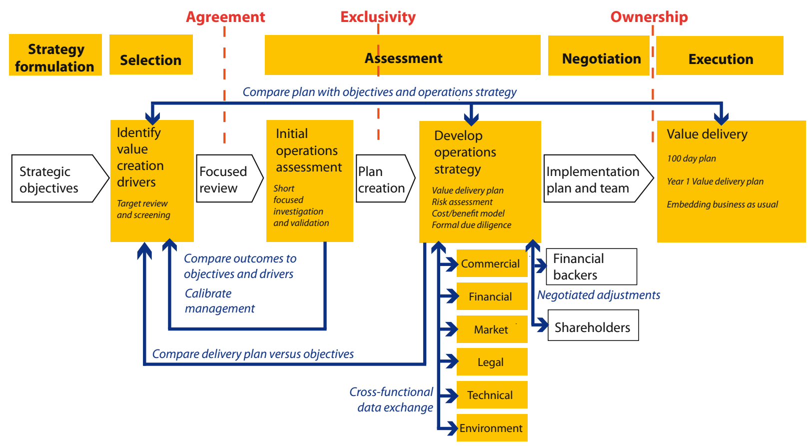
Mergers and acquisitions: an international operations perspective

Leading manufacturers are pumping trillions of dollars into overseas investments as they seek to establish a position in global markets. The primary means for such Foreign Direct Investment (FDI) are mergers and acquisitions (M&A). However a major research project by the Institute for Manufacturing reveals these deals often fail to meet key objectives due to a failure to assess and manage issues of operations integration.

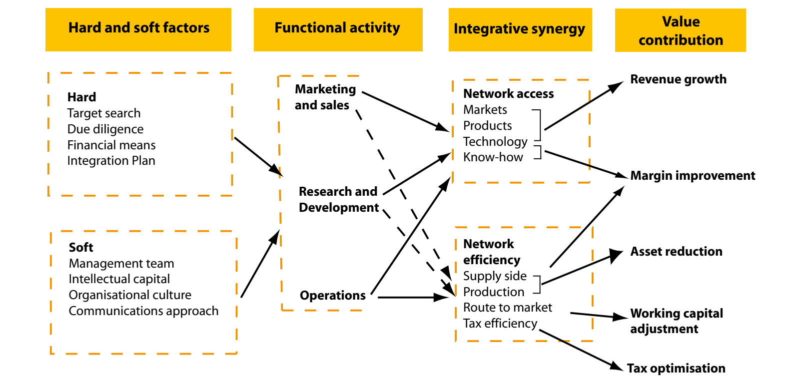
Firms undertake international M&A for a variety of reasons – for example to gain access to new markets or provide access to raw materials. Haier's unsuccessful $1.3bn bid for Maytag would have enhanced its presence in the US. Aditya Birla's acquisition of copper mines in Australia and a pulp mill in Canada secured sources of vital raw materials.

Most international M&As involve significant integration of operations by the companies involved. The IfM has carried out an extensive study of over 30 international M&As in order to understand the operational issues involved in these large-scale international deals. This Briefing summarises the research findings and highlights some of the implications for all stages of the M&A process.

Operations process framework



Value creation framework



Operations process framework for international M&A

Although different academics and consultancies favour different models for discussing the complex process of M&A, there is a logical set of operational stages to be conducted in any international M&A. The IfM research developed an operations process framework (top right) that has been tested with a wide range of M&A practitioners. This framework ties operations considerations to the higher-level strategic processes of initial target *selection*, *assessment* and *execution*, linking them together and setting them in the context of the key milestones in M&A deals: *agreement*, *exclusivity* and ownership. The framework shows the activities in each stage, and the inter-linkages between internal and external stakeholders.

M&A and value creation

Value creation is the fundamental objective of M&A and defining the synergies to be achieved is imperative for successful execution. IfM research has shown that the principal operational drivers of value creation for international M&As are:

- **Network access** (to resources markets, products, technology and know-how)
- **Network efficiency** (supply side efficiency, production efficiency and route-to-market efficiency. Tax efficiency is also a significant potential benefit, but is not a major focus of this work).

Types of M&A

M&As may be classified in many ways. We have found the following categorisation[1] most useful as it provides strong links to the drivers of value and to likely integrative synergies (see graphic overleaf):

- **Horizontal** when the operations of one need to integrate with similar operations in the other firm. Sub-categories include:

CIM Briefing: 2009 No 4
ifm-enquiries@eng.cam.ac.uk
www.ifm.eng.cam.ac.uk

Centre for International Manufacturing
Institute for Manufacturing
17 Charles Babbage Road
Cambridge CB3 0FS, UK

CIM briefing is published by the University of Cambridge Institute for Manufacturing to discuss issues of interest in the field of international manufacturing.
ISSN 1755-9898

Overlap where similar products are sold in similar countries

Market extension where existing products from one firm can be rolled out to markets served by the other

Product extension where the product technologies of the two firms can be combined to develop new products

- **Vertical** when the operations of one need to integrate with those of a potential supplier 'upstream' and or customer 'downstream'.
- **Unrelated** when there is no involvement of operations

Implications for successful M&A

The research identified some key issues that should be considered in order to improve the success of international M&As.

1. Assessment/due diligence

The target will have been chosen on the basis of limited knowledge and so the acquiring company will have made assumptions. Due diligence is the process of evaluating those assumptions to allow the acquirer to form a better estimate of the value potential in the deal and to refine its valuation of the target. The process map shows two phases of due diligence, during the initial operations assessment and also during the development of the operations strategy. The assessment needs to consider the assumptions about the target firm and, if integration is required to deliver value, whether this integration is feasible without compromising that value. This is particularly complicated in operations due diligence, since the necessary information is either not recorded or is not collated in any central database.

The sources of value in M&A, and the consequent necessary integration activities, will be strongly influenced by the type of M&A. The necessary due diligence activities should also be driven by M&A type. Many types of M&A are dependent on operations to release expected synergies, so it is vital that the relevant aspects of operations are evaluated during due diligence. We use the classification shown in the figure (above right), which shows the primary links to both operations due diligence priorities and integration tasks.

Types of M&A

		Importance of operations integration					
		High					Low
		Horizontal			Vertical		Unrelated
	M&A Classification	Overlap	Market extension	Product extension	Upstream	Downstream	
	Primary Source of Value	• Market presence • Efficiency	• Increased revenue	• Increased revenue	• Secure supplies • Efficiency	• Secure r-t-m • Efficiency	
Integration synergy	Network access						
	Markets		++				
	Products			++			
	Technology			++			
	Know-how	++					
	Network efficiency						
Value chain	R&D/Design	++		++			
	Supply side	++			++		
	Production	++			++	++	
	Route to market	++				++	

2. Post M&A integration of international networks

Successful post M&A integration (PMI) is a major source of value creation through synergy mechanisms such as economies of scale and scope, and management improvement. Conversely, inadequate PMI is a major cause of the high failure rate of M&As. Today's business activities are increasingly taking place across geographic and ownership boundaries, which tends to make successful PMI a more challenging task. For example when Hindalco, part of India's Aditya Birla group, acquired Canadian-based Novelis for $5.90bn in 2007, it not only expanded down-stream but also acquired significant operations in 11 new countries. The challenge increases in networked organisations due to their extra complexity and interdependencies.

PMI processes are extremely complex and encompass a large number of interrelated decisions and actions involving:

- facilities and assets
- operational processes, management and organisation
- IT systems & support, human resources and culture
- suppliers and customers

IfM case evidence supports the argument that different types of M&As with a range of strategic objectives will focus on different integration issues.

The integration process has three main steps. The first step is to align the integration process with the M&A objectives by developing appropriate integration objectives, working principles and defining critical success criteria. The second step is to discover any network configuration gaps and to identify critical integration issues. The third step is to develop action plans to address the key issues in time sequence. Worksheets, which have been tested in live M&As, have been developed to help managers assess issues and develop action plans.

3. Role of operations managers in the M&A process

It is often difficult to obtain the data needed to undertake an initial operations assessment and to develop an operations strategy. Such data will also require interpretation by operations specialists. It is vital that the people executing the operations plan (typically operations managers), do not forget the original motivation for the acquisition. The IfM research showed, however, that selection, assessment and execution are often undertaken by different groups of 'experts', typically with very little communication or exchange of data. This means that assessments are frequently only done in financial terms, and do not reflect the original strategic objectives of the deal. Execution frequently encounters wholly unexpected circumstances which can seriously undermine the original rationale.

For all these reasons there is a strong argument for the involvement of operations staff at an early stage of the project. However these operations team members will need to be able to work in a different context to normal day-to-day operations. There will be neither the data nor time to make assessments at the level of accuracy normally expected. In addition, the evaluation will have to be carried out under conditions of extreme confidentiality. Finding the right operations members is therefore a critical task – especially as they may have to act across a range of operational disciplines, in order to keep the team to a manageable size.

Research approach

The research approach involved engagements with a broad range of major multi-national companies. Understanding the drivers of M&A initiatives was of key importance and forms a significant part of the conclusions. Engagement with City institutions which are closely involved with M&A transactions allowed the perspectives of bankers, lawyers and consultants with broad experience of M&A to be considered.

Research team

The M&A research team includes Dr Jagjit Singh Srai, Dr Don Fleet, Dr Yongjiang Shi, Dr Andrej Bertoncelj and Dr Yufeng Zhang. A booklet summarising the research is in preparation and will be available from the IfM website: http://www.ifm.eng.cam.ac.uk/
For further information please contact Dr Srai at jss46@cam.ac.uk.

[1]This classification is an extension of the classification developed by the US Federal Trade Commission in the 1970s