

# Manager Update

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A quarterly summary of topical management ideas, focusing on four key issues.

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Faculty of Finance  
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## Manager Update

... is produced in parallel with the Braybrooke Press publication of the same name.

**Manager Update** helps the general manager keep abreast of the latest articles in specialist management journals. The most useful ideas in the fields of strategy and organisation, marketing, accounting and finance, and human resources management are carefully selected from a wide range of publications with the busy general manager in mind.

Experts in each field explain and discuss the relevance, practicality and usefulness of the key new concepts and ideas, thus enabling the senior executive to keep really up-to-date.

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The Faculty committee intends that **Manager Update** will act as an aide-memoire for members, provide new ideas, and encourage good practice, but cannot accept responsibility for their accuracy or completeness. Responses from the membership will be a very important part of the successful development of the series.

**Manager Update** is compiled and edited by Professor Keith MacMillan, director of the Centre for Organisational Reputation and Relationships at Henley Management College.

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*Roger Mills is Professor of Accounting and Finance, Henley Management College.*

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*Susan Foreman is Marketing Faculty Group Leader, Henley Management College.*

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*Richard McBain is Director of Distance Learning Programmes, Henley Management College.*

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*Ian Turner is Professor of Management Studies and Director of Graduate Business Studies, Henley Management College.*

# Raising equity finance

As stock markets have become more volatile, the number of initial public offerings (IPOs) or flotations, has fallen. Since this lull has followed the dotcom storm, it offers an opportunity to check back on the performance of companies after flotation. It is hardly surprising to find that generally they have not performed well, but that there are differences between technology and non-technology companies and according to the age of the company on flotation. Given how this is likely to affect investors' attitudes to IPOs in the future, what alternatives are there available to a firm wishing to raise equity finance? Here, **Roger Mills** discusses the alternatives of reverse takeovers and private investments in public equity.

According to Ivo Welch and Jay Ritter, more than one company per day went public in the US between 1980 and 2001<sup>1</sup>. The number of initial public offerings (IPOs) per year varied from 100 to more than 400 and had a total combined value of \$488 billion (in 2001 dollars), or an average of \$78 million per deal. These shares, by the end of the first day of trading, had increased in value by 18.8%, on average. Those investors that bought the shares at the first-day closing price and then held them for three years saw a return of 22.6% on the IPOs. Yet, in spite of this, the average IPO under performed the Centre for Research in Security Prices (CRSP) value-weighted market index by 23.4%, over three years, and under performed seasoned companies with the same market capitalisation and book-to-market ratio by 5.1%.

Following the stock market bubble burst, the number of IPOs has plummeted. There were just 97 in 2001 and 86 last year<sup>2</sup>. Only five deals made it to the US market in the first quarter of 2003, the lowest number since 1978. Nor does the immediate future look any rosier; each of the nine other slowest quarters during the last 30 years was followed by a further disappointment, a trend few believe will change this quarter.

The recent war in Iraq has exacerbated the IPO gloom. The market absorbed developments minute-by-minute, and investors watching the violent and unpredictable swings at the time were clearly wary of both established stocks and new issues. IPOs, of course, are most suited to stable markets,

while a thin or erratic trading environment increases the risk that a company must shelve the offering or cut its stock price.

What, then, can a company do if it seeks a stock market listing? Given the current bear market environment and often bleak predictions of the future the question seems valid. Should a company wait longer to make its IPO and, if so, what evidence is there of it being a likely success? Are there, in fact, at this moment any alternatives?

## The relationship between company age-at-IPO and aftermarket stock performance

David Clark argues that the average age of a company going public during the 1990s was the lowest since World War II<sup>3</sup>. The average 1990's IPO, with a mean time from incorporation to public offering of roughly 10 years, was about one-third as old as a typical mid-20th century IPO. Boyan Jovanovic and Peter Rousseau view the duration of the pre-IPO waiting phase as the result of a trade off between company learning and the opportunity cost related to delay to market<sup>4</sup> in explaining the relative youth of many recent IPOs.

For example, prior to a company's IPO, management refines the enterprise's idea and strategy, while early investors and creditors assess the company's potential, risks and optimal deployment of capital. Since the post-IPO capital investment will be irreversible, this learning process is very impor-



The number of IPOs has plummeted... What, then, can a company do if it seeks a stock market listing?

tant because it reduces the possibility of a costly mistake. Yet, the pre-IPO learning period delays the company's realisation of revenues, creating an opportunity cost that can vary depending on the quality of the idea. The company will therefore attempt to maximise net present value in terms of these two factors by finding the optimal time for its IPO. Put simply, the better a company's idea, product or business model, the greater the opportunity cost of delay, and the more likely the company will be to go public at an early stage. For some, then, the low average of IPOs during the 1990s may indicate this as an era of unusually promising companies.

But did the market at this time gauge accurately the supposed high potential of the companies in this period, particularly the youngest companies? Theoretically, in an efficient market, the aftermarket price of an IPO will almost immediately reflect the growth potential of the company, based, of course, on all available information. Average risk-adjusted returns going forward should match the market, regardless of the age-at-IPO of a company.

Clark's study examined the relationship between the age of companies at IPO and long-run aftermarket performance. It aimed to test the efficiency of the market with regard to the IPOs during the 1991 to 1997 period by measuring three-year holding period excess stock returns relative to company age-at-IPO. Due to the technology-heavy character of the recent IPO period, the study segmented data into technology and non-technology panels in an attempt to see if technology companies have their own age-performance relationship. The study, consistent with prior research, found overall negative, abnormal returns for the whole sample of IPOs during the study period. It also found that a statistically significant positive relationship existed between age-at-IPO and aftermarket performance for the overall sample in this period.

Clark observed that the age-return relationship is, in fact, different for technology and non-technology companies. Non-technology companies, for example, exhibited a positive relationship between company age-at-IPO and abnormal returns, with a high degree of statistical significance. By contrast, very young technology enterprises outperformed older companies, particularly during the 1995 to 1997 IPO period. On the whole, the technology panel exhibited a statistically sig-

nificant negative correlation between age and excess returns. Finally, an examination of distressed de-listing rates showed that younger companies, particularly young technology companies, were more likely to suffer extreme financial difficulty during the 1991 to 1997 period.

### Choosing to go public

'Why go public?' is a fundamental question that should be on every company's mind before considering a stock market listing. For most, the answer is simple – to raise equity capital for the company and to create a public market in which the founders and other shareholders can convert some of their wealth into cash at a future date. Potential non-financial reasons, such as increased publicity, only play a minor role for most companies, say Welch and Ritter. In the absence of cash considerations, it seems, most entrepreneurs would rather concentrate on running their companies than become caught up in the complex processes of the public market<sup>5</sup>.

But are IPOs the best way for entrepreneurs to raise capital, and why is the motivation to do an IPO stronger in certain instances? One of the first theories by Luigi Zingales<sup>6</sup> observed that it is much easier for a potential acquirer to spot a potential takeover target when it is public. Moreover, entrepreneurs realise that acquirers can pressure targets on pricing concessions more than they can pressure outside investors. By going public, entrepreneurs may thus help to facilitate the acquisition of their company for a higher value than they might otherwise receive for it in an outright sale.

Bernard Black and Ronald Gilson, though, argue that many IPOs are not so much exits for the entrepreneur as they are for the venture capitalists and entrepreneurs who often regain control from the venture capitalists in venture capital-backed companies at the IPO<sup>7</sup>. Thomas Chemmanur and Paolo Fulghieri develop the more conventional wisdom that IPOs allow more dispersion of ownership, with all its concomitant advantages and disadvantages<sup>8</sup>.

Some argue that being the first in an industry to go public – like, for example, Netscape – can confer first-mover advantage. But public trading has costs and benefits. Vojislav Maksimovic and Pegaret Pichler argue, for

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example, that a high public price can attract product market competition, but that public trading can add value to the company by inspiring confidence among its investors, customers, creditors and suppliers<sup>9</sup>.

Market timing may also play a key role in decisions to go public. Deborah Lucas and Robert McDonald's asymmetric information model shows, for example, that companies will usually postpone their equity issue if they believe themselves undervalued<sup>10</sup>. Many entrepreneurs, in the depths of a bear market, will simply delay their IPO until a bull market offers more favourable pricing.

Formal theories of IPO issuing activity are, however, difficult to test. For example, researchers usually only observe those companies going public and are unable to observe which private companies could have gone public. Welch and Ritter review the evidence on the going public decision and conclude, as do others, that companies go public primarily in response to favourable market conditions, but only if they are beyond a certain stage in their life cycle<sup>11</sup>.

### Alternatives to IPOs

What, then, are the alternatives to an IPO in a bear market environment? Here, we will review two that have attracted considerable interest, particularly in North America.

#### Reverse mergers

The first is a reverse merger which allows a private company to become a publicly traded company without undertaking an IPO. Reverse mergers have proved to be popular in the US where they are also known as reverse takeovers (RTO), shell mergers or pool mergers.

A reverse merger is a simplified, fast-track method of going public which occurs when a public company, that has no business and usually limited assets, acquires a private company with a viable business. The private company then 'reverse merges' into the already public company to produce an entirely new operating entity that generally changes name to reflect the newly merged company's business. Once complete, the principal shareholders of the private company will usually control the reorganised public company.

Many reckon reverse mergers are a very beneficial business strategy that can be used to

assist private companies in reaching their major business goals faster and at less cost. More specifically, the mechanics of a reverse takeover are:

- a public vehicle normally acquires 100% of the outstanding stock of the private company (or private holding company if applicable) in consideration for issuance to the private shareholders of a negotiated number of restricted shares in the public company. The private company generally continues to operate as a wholly owned subsidiary of the public holding company; and
- following the above transaction, the total shares held by the private company's shareholders will usually equal a majority percentage of the total outstanding stock in the public holding company. The officers and directors of the public company resign at the closing, and the officers and directors of the private company now manage the public company, as well as continuing to operate the wholly owned subsidiary.

While an obvious simplification, these two steps provide a broad outline of the reverse merger process. The above process usually takes just three to eight weeks. The fees involved in a reverse merger vary on a project by project basis and are, for example, dependent on many variables, including the type of vehicle used. The cost of acquiring public vehicles, though, probably ranges from \$50,000 to \$400,000, in addition to 5% to 40% of the stock in the post merged company (plus legal and accounting fees). Generally, the more that is paid up-front, the higher percentage of ownership the private company shareholders should keep in the post merged entity.

Reverse mergers can arguably be a viable alternative to an IPO. Many companies, for instance, do not have the relationships needed to complete a large IPO or are simply not able to raise large amounts of capital up front. In fact, reverse merger transactions are ideal for companies that can access adequate capital today and are willing to fund themselves with staged funding as the company grows.

Reverse mergers have attracted significant attention from those wanting to access the US and Canadian equity markets. Oliver Wittorf argues, however, that the academic literature dealing with reverse takeovers in Western Europe is very limited<sup>12</sup>: much of the published material originates from the US where the situation is different due to the Anglo-Saxon regulatory environment.

The alternatives to an IPO in a bear environment are: reverse mergers and private investments in public equity

Reverse mergers have attracted significant attention from those looking at US and Canadian markets

Consequently, he says, these differences made it impossible for him to take such research into account in his review of reverse mergers in a Swiss context. In Switzerland, he says, if the preparation of the business and follow-up transactions are taken into consideration, a reverse takeover is a complex transaction.

The author argues that such a transaction involves complicated legal questions and regulatory issues. Relevant legal transactions under Swiss law are the purchase of shares and assets, statutory mergers, share-for-share transactions and the acquisition of shell companies. The tax consequences of those transactions are very important. Legislation regarding shareholders subscription rights and the restructuring of companies are additional decisive factors.

#### **Private investments in public equity (PIPEs)**

The tremendous growth of capital-intensive industries like biotech, pharmaceuticals, telecommunications, computers, software and the internet in the 1990s created a large market for post-IPO financing. Now, with the bull market of that time a distant memory, some cash-strapped companies have turned to the use of a private placement via a PIPE<sup>13</sup>. This, according to Investorwords, is “a transaction in which accredited investors are allowed to purchase stock in a public company, usually below the market price. The stock is registered with the SEC so that it may later be resold to the public”<sup>14</sup>.

The most common form of PIPEs is the issuance of convertible securities – such as convertible debt or preferred stock – or common stock at a fixed conversion ratio or specified discount to the current market price. Typically, the company files a registration statement with the SEC after a PIPE has been completed to allow the resale of securities purchased by the PIPE investor. The investor generally requires that the registration statement be declared effective within a certain time after the investment is made. If, however, the company does not meet the agreed timetable it must pay the investor a predetermined penalty for each specified period beyond the originally agreed-to time.

This procedure satisfies the issuer’s need to obtain funds speedily, while ultimately satisfying the investor’s need to be able to liquidate the investment in the public markets. PIPEs can also be structured as equity lines

of credit where the company usually has the right – but not the obligation – to draw down funds, up to a predetermined maximum dollar amount, through the issuance of tranches of common stock to the investors. The amount and minimum price per share of each draw down are at the sole discretion of the company, subject to certain volume and price limitations. Typically, the shares are sold at a discount to the company’s stock price during the period that the company determines to sell shares.

The PIPE’s major advantage is the speed with which financing is closed, often in 10 days or even less. For example, if a company chooses to use PIPEs to sell securities privately to a limited number of investors, it avoids SEC review until after the funds have been received. By contrast, more traditional public offerings of securities involve the advance filing of a registration statement and a two to four month SEC review period prior to effectiveness. There is, in addition, an important risk that the public markets may close during this period, so that the company is unable to raise the money when it is needed. Nor do PIPEs generally need a time consuming and expensive ‘road show,’ since funding typically comes from relatively few investors.

Yet PIPEs are vulnerable to manipulation by short sellers, who can send a stock into a ‘death spiral’. Yes, contractual language can be added to the investment agreement used for the sale of the PIPEs to protect against this possibility, but it is generally difficult to determine the cause of a sharp decline in price and even more difficult to prove that there has been a violation of the agreement. Nevertheless, PIPEs transactions must be properly structured to limit the risk of subsequent stock manipulation.

PIPEs may now well be replacing IPOs as the favoured financing vehicle of the post internet boom period. They are used by an array of issuers and offer public companies a variety of fundraising options. AOL Latin America, for example, raised \$160 million through a convertible debt PIPE and in today’s market, PIPEs have become tremendously valuable financing options. With over \$255 billion worth of companies going public in 1999 and 2000 and most less than five years old, the PIPE is being touted as the best financing vehicle for companies with developing products but no operating profits. MU

PIPEs may now be replacing IPOs as the favoured financing vehicle of the post internet boom period

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# Consumer decision making and the internet

What difference has the internet made to the process of consumer decision-making? The most obvious difference is in the search-phase, when consumers are seeking information about a product or service. Much more information is now available, but this does not necessarily lead to buying on-line. **Susan Foreman** argues customers may also feel overwhelmed by the volume and complexity of information now available. And there are some products that, by their very nature, are not available for web marketing.

Understanding the consumer decision-making process and customer satisfaction has, unsurprisingly, been for many years a major research focus of both academics and of companies themselves. Each has, in their different way, investigated the 'simple logic' of consumer decision making, charting the progression from information search and the evaluation of different product choices to customer satisfaction, repeat purchase and increased profitability.

Yet, despite 50 years of research, there continues to be ambiguity and controversy about the way consumers make decisions. Why is this? In fact, the apparently simple logic hides psychological processes, social influences and environmental forces which all bring added complexity. These complexities are, though, also a rich source of research opportunities and this article looks at this process in conventional markets as well as in virtual marketplaces. This review begins with a look at the early stages of consumer decision-making and the impact of the internet on this. It then turns to conventional markets and looks at a new approach to measuring satisfaction. Most importantly, though, this review considers the key question of why relationships endure when dissatisfaction is evident.

The consumer decision-making processes include the cognitive and behavioural steps that consumers go through before making either complex or simple purchases. The early stage naturally concentrates on 'information search'. Unsurprisingly, many have questioned the role the internet plays in generating large amounts of information

and thus, ostensibly, improving customer knowledge. Yet, although information search dominates internet usage in some sectors, actual transactions can be rare. For example, Ming Zeng and Werner Reinartz<sup>1</sup> state that in the financial services sector – and, more specifically, the mortgage market – 56% of customers in the US use the internet to search for information but only 1.5% actually bought their mortgage on the internet.

## Information search

How, then, can these passive searchers be converted into active consumers? First, it seems that in the pre-internet age consumers experienced difficulties in accessing information but that now they are often experiencing information overload. While this huge information reservoir may have improved the efficiency of information, searching it does not always facilitate actual purchasing on the net. Yet some products and services are more likely to be purchased on-line.

Zeng and Reinartz highlight a number of factors that need to be taken into account in this, including risk, frequency of purchase and the nature of the product, which they divide into functional or expressive products and services. The internet, they say, is useful for those products that are lower in value and which, unsurprisingly, do not require close or personal examination and also, potentially, for low-value routine articles. In contrast, the information search on the internet is of less importance for 'value expressive' products, like a new perfume, as its effect is difficult to assess remotely.

Despite 50 years of research there continues to be ambiguity and controversy about the way consumers make decisions

Information search is also of importance to Rajneesh Suri, Mary Long and Kent Monroe<sup>2</sup> who are concerned about the impact of the internet on pricing and what the customer is prepared to pay. They emphasise the difficulty of searching through the vast amount of information contained in the more than one billion pages of the worldwide web (WWW)<sup>3</sup>, especially when, as many previous studies on memory and information load have often pointed out, the human memory can probably only deal with about seven to 10 pieces of information at any one time. Thus, the fear is that ultimately information levels will become intimidating for consumers, leading to a negative impact on purchase rates.

### From searchers to purchasers

Consumers need help and encouragement to engage in transactions – but what is the best way to achieve this? Suri, Long and Monroe suggest that there is a link between information overload and consumer motivation. Using a ‘heuristic systematic model’ developed by Shelley Chaiken<sup>4</sup> in the 1980s, they show that if consumers are motivated and skilled in information searching they will follow a systematic approach and conduct thorough searches of the information available. Yet, as the authors admit, this type of systematic approach is perhaps more the exception than the rule and, in a vicious cycle, too much information tends to lead to a less systematic approach to information processing and low motivation which then limits the extent of information searching that takes place.

### Evaluation of alternatives

According to Zeng and Reinartz, the internet has not really helped consumers to evaluate properly the alternatives they have before them. As mentioned above, it is, in fact, possible to evaluate some products and services depending mostly on their individual characteristics. For example:

- *high or low touch products* – it is, of course, obvious that the internet is not an effective medium for those products that need to be engaged by the senses. Thus, more routine, ‘low touch’ products requiring less evaluation are more appropriate for on-line transactions;
- *physical or information based products* – in contrast, the internet lends itself to infor-

mation-based, more intangible products. This is why, despite the low US mortgage purchase statistic quoted above, on-line financial information has been deemed a success; and

- *demand and customer expertise* – while there may be more information available, consumers are not necessarily more knowledgeable or expert in how they should use it. The more complex and the less frequent the decision, the more the consumer will generally struggle with the evaluation stage and, say the authors, will be less likely to invest in developing the expertise for themselves.

The evaluation stage, according to Zeng and Reinartz, is a ‘major bottleneck... which also accounts for the huge gap between on-line search and transactions’. They comment on many companies and, in particular, the B2Cs who, rather than concentrating on helping people evaluate information have simply just concentrated on providing ever greater quantities of it!

### Recommendation and guidance

Increasingly, consumers are searching for guidance to help them make their decisions. Many are turning to recommendation or service agents to help them navigate the mass of information and evaluate all the alternatives on offer. Praveen Aggarwal and Rajiv Vaidyanathan<sup>5</sup> also indicate that many on-line retailers are also looking to ‘intelligent agents’ to help them develop relationships with consumers and, thus, improve sales and retention levels. Such agents act as on-line intermediaries, assessing the customers’ preferences and requirements before searching the internet for suitable products or services. Here, the agents develop expertise and use their knowledge and expertise to help the consumer. Consumers and retailers who look to such agents for help should, however, naturally assess the reliability of decisions being made on their behalf.

Aggarwal and Vaidyanathan show that there are two key methods used to help understand consumer needs. The first, used by companies such as on-line book retailer Amazon, monitors customer usage behaviour using conjoint analysis (ranks or ratings of product profiles) to identify the products and services that are likely to appeal to individual clients. An alternative approach, seen as more explicit, is based on ‘self-explicated rat-

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ings' where consumers themselves rate the desirability or importance of a service or product's attributes when making their choice.

Crucially, however, in their analysis, Aggarwal and Vaidyanathan show that the products and services offered as a result of using these two different approaches can vary, leading to inappropriate recommendations. In fact, their research does not highlight one method as better than another, but did find, most importantly, that the different product and service recommendations potentially disappointed customers. Interestingly, the approaches were most consistent at the extreme ends of consumer preference, ie the least and most preferred items. Thus, some caution is recommended since by using one method alone the agents may not be able to satisfy their customers' needs, both methods, in fact, should be considered. Finally, the agent should be careful to make more than one recommendation so that the consumer is satisfied with the service.

### Transaction

Internet usage decreases as customers move along the decision making process. Zeng and Reinartz state that the way people purchase – and the benefits they derive from the actual purchase process – influences their perception of the value and relevance of the internet as a means of facilitating exchange. Where the process involves a repeat purchase of a product, 'an easily digitised product' or a non-branded product/commodity where there may be many competitors, internet shopping will often suffice. However, where the purchasing itself is considered enjoyable and the experience interesting, the transaction is more likely to take place in person in a more conventional, bricks and mortar, retail environment.

Zeng and Reinartz also indicate that expertise is variable and in order to get the best value from the internet, companies should consider alternative business models that will help to harness its value for their own purposes and for the benefit of their consumers. They suggest that the key business models to be considered are:

- *the 'product originator'* – this has a role in all the stages in the decision making process, with revenue coming from the value of the brand and premium pricing;
- *the 'navigators'* – these concentrate on the

information stage and making money from advertising and generating contacts and leads;

- *the 'expertise provider'* – this is valuable in evaluating products and generates revenue from subscriptions and fees;
- *the 'transaction facilitator'* – this encourages purchase and generates income from the provision of 'enabling technology'; and
- *the 'logistic operator'* – this ensures delivery of the goods after the transaction stage and generates revenue from fees.

The authors' advice is, thus, to concentrate on business models that will bring value to consumers in the decision-making process by bridging gaps in their knowledge and easing them painlessly on to the next stage. By intervening in this way, the authors say, businesses can help to overcome the difficulties experienced by consumers and optimise their on-line business potential.

### Satisfaction

Once the transaction is completed, attention next turns towards the customer's satisfaction with the product or the service. This, again, has been the subject of a great deal of research and is clearly of primary importance for many organisations. Jan Elkof and Anders Westlund's<sup>6</sup>, for example, argue this idea of customer satisfaction should be the focus of 'future oriented organisations', and many internationally recognised research papers have argued for a similar approach. The authors have, in fact, recently published a new 'performance satisfaction index' which aims to provide a benchmark for comparing satisfaction from company to company in Europe. They thus suggest a new model for assessing levels of satisfaction and for analysing and promoting excellence, again highlighting the enduring interest of this area to researchers.

Clearly, though, this is an ambitious project. It has not only company and industry wide applications – the aims of this project also extend to macro level applications for nations in the European Union. This European satisfaction index, they say, 'will support the process of identifying efficient economic policies to achieve economic growth.' The aim is to become the European satisfaction standard by assessing image, expectations, product and service quality leading to perceived value, customer satisfaction and, ultimately, loyalty and retention.

Internet usage decreases as customers move along the decision making process

### Purchase satisfaction and relationships

To some, satisfaction is only part of the picture. Thomas Burnham, Judy Frels and Vijay Mahajan<sup>7</sup>, for example, argue some companies are in a 'satisfaction trap', since they don't pay sufficient attention to a wide range of other factors that they say also drive retention. Other key factors driving retention in conventional markets – like, for example, switching costs – have been bypassed in the journals and in practice. Yet, there are a number of examples of long-term relationships between customers and suppliers which have endured despite being problematic and unsatisfactory.

Whilst satisfaction and loyalty are key drivers, switching costs are also crucially important because they are costs that customers also want to avoid. Burnham, Frels and Mahajan have identified a number of factors that affect switching costs and have outlined a comprehensive list of switching costs that fall into three categories.

Switching costs are affected by the complexity of the product and market. When uncertainty exists because, for example, the customer has difficulty in understanding the product, customers tend to rely on the relationship with the supplier and on the reputation of the brand for reassurance. Thus, in such contexts, switching costs are high. As relationships develop, they tend to build on social interactions to create greater financial and structural bonds between the two parties. If, therefore, a relationship ends, increased switching costs are incurred. However, switching costs will be lower when the customer has a great deal of experience with other suppliers, as this exposure gives them a level of expertise and confidence in their ability to select alternative providers. The costs are also lower when the customer is more 'promiscuous' and regularly switches between suppliers. The switching costs identified are:

#### Procedural switching costs

- *economic risk* – there are a number of economic 'unknowns' and factors that make customers feel uncertain. This exists where there is risk of a change in performance, finances and where there is an impact on convenience;
- *evaluation* – switching from one supplier to another requires time and effort in, for example, information gathering and the analysis of alternatives;

- *learning* – change often involves an investment in understanding how new products work and learning about the new organisation you are working with and, perhaps, effort in adapting to the needs of the new partner; and
- *set up costs* – developing new relationships is time consuming and resource intensive in some sectors.

#### Financial risks

- *loss of benefit* – in a long relationship, customers can accrue benefits and discounts that might not be on offer in the early stages of a new partnership; and
- *monetary loss* – moving to a new supplier may incur new investment or expenses such as deposits or even legal fees and marketing expenses.

#### Relational costs

- *personal costs* – the social bonds that are developed between suppliers and customers can often hinder change and the investment in new relationships can be uncomfortable; and
- *brand relationships* – brands are important to customers – they hold meaning, identity and bonds which add value and can, therefore, sometimes be difficult to give up.

The authors' research showed that whilst satisfaction was an important part of customer retention, switching costs may play an even more important role. And, in fact, the overriding focus on satisfaction in the marketing world seems often to have ignored these key factors. They suggest that switching costs most often prevent customers from transferring their business after an unsatisfactory incident. Interestingly, financial costs had the least impact whereas the relational and procedural costs seem to be most prominent in customers' minds.

So what can managers do? They should work on satisfaction and building harmonious relationships whilst also building positive barriers to prevent customers from leaving the company. By helping customers to learn about their products and increasing communication they can reinforce customer perceptions of the benefits of their products and services. Ultimately, then, this makes it more complicated and difficult for customers to switch. **MU**

*For references, see page 12*

Switching costs are crucially important because they are costs customers want to avoid

Managers should build positive barriers to prevent customers leaving

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# Organisational identity

Organisational identity is essentially 'how we see ourselves'. While there may be much hype (and cost) associated with changing the corporate logo, organisational identity is much more than this and cannot be changed so easily. To the extent that individual employee identities can be aligned to the identity of the organisation as a whole, this can have powerful benefits in terms of staff morale, productivity and commitment. Low identification, on the other hand, can lead to under-performance. **Richard McBain** argues the quality of leadership, therefore, has a key role to play in building successful, collective identities.

Researchers are increasingly recognising the importance of individual, group and organisational identity on employee well being, diversity management and productivity. Much of the current research is building on the pioneering work of Henri Tajfel and John Turner<sup>1, 2</sup>, and the theories of social identity and self-categorisation. Social identity building involves an individual's knowledge that s/he belongs to certain group(s) and that such memberships are internalised as part of the individual's sense of their own identity.

Furthermore, this sense of belonging brings about a sense of value in the group and individuals will, it seems, act to promote the interests of the group. These social-identity processes combine to produce the co-ordination of behaviour and communication that are critical to the success of organisations.

This article will consider recent research into the importance of organisational identity as both a resource and a potential barrier to change and transformation. It considers the potential impact of leadership styles in developing identity resources and the link between identification and commitment to an organisation.

It will also review an important new approach to developing an organisation's identity resources. Finally, it considers why, and in which ways, some organisations may be seeking to 'regulate' individual identity and the potential uncertainties involved in this.

## Organisational identity traps and transformation

An organisation's identity comes from the distinctive attributes that key stakeholders view as core, enduring and distinctive. Many view the company as a flexible economic entity whose strategies can be continuously adapted to the evolving environment. Not necessarily, say Hamid Bouchikhi and John Kimberly<sup>3</sup>, who argue, in fact, that this view actually underplays the importance of potential sources of inertia. Of these, they particularly highlight organisational identity which, they say, can be 'the primary constraint on its adaptive capacity'.

But why is organisational identity so important? The authors underline four main areas:

1. individuals actually draw much of their personal identity from organisations;
2. a company's identity sets boundaries on the extent to which an organisation can change yet remain the same in the eyes of its key constituencies;
3. it shapes how its members view the world and frame issues; and
4. It influences the distribution of resources and power among internal and external stakeholders.

The authors propose a three-layered model of the organisation, suggesting that identity lies at the very core, with strategy in the intermediate level and then an outer level comprising operations (structures, systems



Researchers are increasingly recognising the importance of individual, group and organisational identity

Identity can be the primary constraint on an organisation's adaptive capacity

and processes). Yet, they say, all too often organisations attempt a transformation that addresses only the operational and/or strategic layers and fails to reach into the organisation's core identity. For others, the difficulties and conflicts may simply be too difficult to address: Apple Computer and Hershey Foods, the authors argue, confront an 'identity trap' which makes transformation for them very difficult.

But not impossible. Escape from this trap, they say, is possible by evolutionary or revolutionary means. 'Evolutionary change' is when identity change happens as a kind of by-product of strategic and organisational changes over a long period, as in the case of the French glass company BSN, which transformed itself into Groupe Danone. 'Revolutionary change', as its name suggests, begins with a swift redefinition of the company's identity followed by the realignment of strategy and operations. The merger of Rhone Poulenc and Hoechst into Aventis is a prime example of this approach.

Identity issues require as much attention as more traditional strategic and operating matters

What, then, is the manager's role in all this? The first point is that identity issues require as much attention as more traditional strategic and operating matters. Periodically, managers should also carry out an 'identity audit' to assess perceptions of the identity of the organisation among different stakeholders, the degree of convergence, commitment to these perceptions and the degree of fit between the organisation's identity and the environment.

If, after all this, an identity change seems necessary, it will often require more than simply a new name and logo. A compelling 'who are we?' story, a consistent new strategic and operational blueprint and effective political skills are all important ingredients. Yet, creating a new identity also requires that most precious of management commodities, time, as well as continuity and a great deal of support from key stakeholders to overcome the inevitable resistance. The transformation will be easier, the authors suggest, when key stakeholders understand the need for radical change and feel relatively secure about the continuity of the business.

### Using metaphors to reveal identity building at work

Eero Vaara, Janne Tienari and Risto Sääntti<sup>4</sup> provide interesting insight into the process

of cultural identity building in their study of a cross-border merger. Two intertwined processes are inherent in this identity-building process: the construction – and assertion – of one's own identity in relation to the other party ('us and them'), and attempts to construct a common identity for the new organisation (the 'common future').

The Swedish Nordbanken and the Finnish Merita Bank announced they would merge in 1997. The Swedes owned 60% of the share capital and Swedish was chosen as the official corporate language, but the two parties announced it as a merger of equals. However, the new management identified 'cultural differences' as a potential challenge and consequently organised two series of 'cultural seminars' for the top 300 managers in an attempt to create cross-national understanding, explore cultural differences and identify possible actions for developing the new corporate culture.

In preparation for the second series of seminars, participants were asked to write down metaphors which, in their minds, best described the individual banks and would fit the profile of the future combined bank. The resulting 282 metaphors revealed the continued potency of national and cultural stereotypes and histories. For example, some of the Swedish representatives' metaphors for the 'common future' revealed a strong reference to a common Nordic origin which was absent among the Finnish representatives. In contrast, many of the metaphors on the Finnish side alluded to the often negative experience of past Finnish-Swedish relationships, such as when Sweden colonised Finland and other Nordic countries.

Thus, the Swedes were frequently portrayed as 'Big Brother' while the Finns carried the image of 'Little Brother'. However, the whole organisation was later renamed 'Nordea' and the group started an image-building campaign drawing on this pan-Nordic imagery.

What then, does this case study tell us about the use of metaphors and their link to identity in such an exercise? First, it seems, metaphors can concisely convey what is difficult to express in any other way and can also give insight into the hidden thoughts or feelings of which people may be hardly conscious. Second, they can cre-

In cross-border mergers two intertwined processes are inherent – 'us and them' and the 'common future'

ate new ways of looking at things and integrate various aspects of identity, or multiple identities, within a single image. While meanings are case-specific and difficult to interpret, it seems that using a metaphor approach here helped to provide a holistic view of the identity construction process and its emotional, cognitive and political aspects.

Furthermore, it revealed the strength of national, cultural, identity imagery and stereotypes that could have remained hidden in more traditional approaches. This seems to have led to greater self-awareness and served as a basis for facilitating the development of a shared identity or identities.

### Actualising identity resources

More than ever before, organisational success is not linked solely to economic performance. Most also recognise that, among others, social capital and the resources located within the social network of the organisation are also vital. The unique personal and shared social identities of its employees, which serve as a basis for developing shared goals, are important contributors to social capital. One key question many organisations ask themselves is how they can best develop and mobilise these 'identity resources'?

In response, Alexander Haslam et al<sup>5</sup> propose a research-based model for actualising social and personal identity resources (ASPIRe). It involves four phases and should, the authors recommend, be implemented by or in collaboration with HR personnel that have knowledge of the organisation. The model seeks to promote 'bottom-up' organisational creativity and attempts to incorporate the principles of social identity and self-categorisation theories into a logical sequence of activities.

#### Phase 1: ascertaining identity resources (AIRing)

The first phase – achieved, perhaps, by holding a general meeting of employees or by an organisation-wide survey – identifies those group memberships that employees consider relevant to their work-related activity. Clearly, this process, termed AIRing by the authors, must be sensitive to the organisation's broad agenda whilst allowing individuals themselves to identify self-rele-

vant categories. A key task at the end of the phase is a collective decision about which groups need to form the basis of the next phase of the ASPIRe process.

#### Phase 2: subgroup caucusing (sub-casing)

This phase provides a separate forum for independent subgroups to engage in internal discussion and debate with a threefold purpose: to identify and agree on shared goals which will allow them to perform their work better; to identify structural and other barriers obstructing these goals; and, to contribute to the development of a shared identity relevant to these goals. The process of group consensualisation allows individuals to voice values and concerns that are shared with others in a supportive environment.

#### Phase 3: super-ordinate consensualising (super-casing)

The third phase provides a forum to bring together the different subgroups (or multiple representatives of each of them) to engage in further discussion or debate. The main goal of 'super-casing' is to move towards a situation in which employees define themselves in terms of an inclusive super-ordinate identity with new collective goals and an awareness of the subgroup memberships from which that identity has been forged. The two casing phases allow employees to explore the implications and demands of the individual, subgroup and super-ordinate organisational unit levels.

#### Phase 4: organic goal-setting (organising)

The final phase of the process is to establish which of the identified goals and activities are, in the end, actually worth pursuing. While managers will be part of the subgroups, (or may form a subgroup of their own) in the previous phases, direct management control should be minimal. In the final phase, the process focuses on evaluating how appropriate the super-ordinate goals that emerged from super-casing actually are for the organisation. Employees should also be involved in this phase, through, for example, representatives.

The ASPIRe model aims to create identity-based bonds between leaders and followers, and new identity resources from which the whole organisation may benefit. Although based on company theoretical and research foundations, the model still needs to be thoroughly tested, and the authors recognise that managers may be concerned that

Social capital and resources located within the social network of an organisation are vital to its success

the process could provide a vehicle for group-level dissent and conflict. Accordingly, effective positioning and facilitation are critical.

### Identification, commitment, alienation and leadership

Two recent studies provide evidence of the link between identity perceptions and both commitment and leadership style. The first of these, by P Foreman and D Whetton<sup>6</sup>, provides a useful approach to measuring an individual's 'organisational identification' – the extent to which a member's perception of the organisation's current identity actually matches their expectation of what it should be. The authors then considered the effect of this identity 'congruence' on levels of organisational commitment in two main dimensions.

The first is the 'affective' component (or the degree to which a person 'wants' to stay with an organisation) while the second was the 'continuance commitment' component (the extent to which a person 'needs' to stay with the organisation). The authors, however, also recognised that organisations may have multiple identities and examined how people identify with such organisations.

They based their study on rural farm co-operatives in the US, a type of hybrid-identity organisation that, it seems, is constituted according to two seemingly incompatible value systems: a 'normative' system emphasising traditions and symbols (like that of a family), and a 'utilitarian' system characterised by economic rationality (like that of a business). They found, not surprisingly, that the level of identity congruence (the fit between perceptions and expectations) does indeed have a significant effect on 'affective' commitment, or the desire to stay with the organisation.

Interestingly, though, it did not affect 'continuance' commitment – this, the authors say, is best explained by the members' social and economic interests. Furthermore, they found that people separately assessed 'congruence' with the two identities and both normative and utilitarian identity gaps have significant effects on members' 'affective' commitment. This finding is relevant to other organisations that have multiple identities, some of which can involve competing goals or values.

The work of James Sarros et al<sup>7</sup> raises the potential role of leadership in the development and maintenance of identity in their study of the link between leadership style, organisation structure and 'work alienation.' Work alienation, they say, involves three dimensions:

1. *powerlessness* – an expectancy that an individual cannot bring about a desired result;
2. *meaninglessness* – a lack of integration in the work; and
3. *self-estrangement* – when the work process is seen as alien to the individual and independent of his or her contribution.

They found, in a study of 609 fire officers in a large US fire department, that leadership 'is a powerful contributor to more meaningful workplaces that encourage personal growth, and which provide opportunities for individuals to exert some control over work activities'. In particular, they found that 'transformational' leadership reduces the negative impact that bureaucratic work structures can have on feelings of work alienation.

Transformational leadership is based on personal relationships between managers and followers. Such leaders are able to inspire or motivate others and focus on intangible qualities such as vision, shared values and building closer relationships. Transformational leadership seems to reduce alienation by helping individuals understand the complex goals of the organisation and their relationship to their own work.

In contrast, 'transactional' leaders value the impersonal and formalised, or procedural, aspects of performance and promote extrinsic motivation through contingent rewards for goal achievement. They tend to focus on mistakes or take action only when things go wrong. Furthermore, they tend to respond positively to bureaucratic work structures. Transactional leadership, unsurprisingly, tended to exacerbate feelings of work alienation amongst employees.

The key implications of this research are clear. First, the perception of work alienation is reduced and a sense of job accomplishment increased when the level of job autonomy and clarity of job requirements are higher. Second, the more leaders create workplaces that encourage participation –

There are links between identity perceptions and both commitment and leadership style

The level of identity congruence has an effect on desire to stay with the organisation

rather than just the adherence to rules and procedures – the less likely it is for employees to perceive work as a meaningless and irrelevant pursuit. Such workplaces are perhaps more likely to foster the development of resourceful personal and shared identities.

### Identity regulation as organisational control

Organisations, it seems, are increasingly keen to 'regulate' the identities of their employees in order, they say, to achieve business objectives. But to what extent is it possible, or indeed desirable, to do so? After all, in contrast to a 'Fordist' or bureaucratic management perspective – with its emphasis on structure and mechanistic means of control – the language of modern human resource management stresses commitment, involvement and loyalty, all of which have implications for identity.

Mats Alvesson and Hugh Willmott<sup>8</sup> consider the process of identity regulation as a form of social control. The individual employee, they argue, is an 'identity worker' who is increasingly asked to incorporate managerial ways of understanding and talking about the world of work within their self-identity.

The management of 'identity work,' the authors contend, is increasingly important to the employment relationship. People are continuously engaged in 'identity work', which involves forming, maintaining or revising an identity that gives them a sense of coherence and distinctiveness. In stable or routine life situations, the narrative of self-identity runs fairly smoothly.

However, when individuals face disruption to their understanding and feelings of 'who they are' they may need to engage in intensive identity work. 'Identity regulation' refers to the more or less intentional effects of social practices upon the processes of identity construction and reconstruction. However, it is important to recognise that people are not 'passive receptacles' in this process.

Alvesson and Willmott offer a valuable ana-

lytical framework that identifies nine methods of organisational identity regulation:

1. defining the person directly, eg as a (male) middle manager;
2. defining the person by defining others, eg by defining another group as 'amateurish';
3. providing a specific vocabulary of motives, eg stressing the social compared to the instrumental motives for working;
4. explicating morals and values, eg where a team generates a strong consensus on its values;
5. knowledge and skills, eg by framing a group by its knowledge of a particular field, or being able to do certain things, such as 'strategy' or 'business management';
6. group categorisation and affiliation, involving the development of social categories to which the individual is ascribed;
7. hierarchical location, involving social positioning and relative value and supported by repeated symbolism;
8. establishing and clarifying a distinct set of 'rules of the game', which offer guidelines for 'getting by' in ambiguous settings; and
9. defining the context, for example the conditions in which an organisation operates ('globalisation') which has implications for a person's identity.

These modes of regulation can be clustered into four groups: those which focus on the employee (1, 2); those that relate to a field of activity (3, 4, 5); those that consider social relations (6, 7); and, finally, those focusing on the wider context (8 and 9). In practice, these different forms of identity regulation may occur simultaneously and may contradict as well as reinforce each other.

Furthermore, the authors argue forcefully that employees' identities should only be partly or temporarily regulated – whether by managers or other group-controlled processes of regulation. They warn against attempts at more full-blooded regulation which, they say, may not always be successful and which can backfire. **MU**

*For references, see page 18*

Organisations are increasingly keen to 'regulate' the identities of their employees

But identities should only be partly or temporarily regulated

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# Winners and losers in technology revolutions

Strategic lessons continue to be learned from the 'technology bubble'. Who won, who lost, and why? Was it the same as in other major waves of technological innovation? Most internet-based companies certainly over-estimated the extent to which customers would change their basic habits and purchasing patterns. And this limited the potential for successful break-through strategies. According to **Ian Turner**, in many markets, the long-established companies proved best able to exploit the internet and reap the rewards.

The last issue of *Manager Update* looked at some of the most recent writings on incumbents' responses to revolutionary change in the market place. Richard D'Aveni – once the prophet of hyper-competition – has most recently turned his attention to counter-revolutionary strategies by which incumbents can check the development of break-through innovations launched by new entrants into a market place. Today, it seems, the balance of power has shifted once again away from the revolutionary insurgents towards established incumbents. Nor is all of this a reflection of the fate of the so-called 'dotcoms'; business journals have, in recent weeks, been trumpeting the success of some of the dotcom survivors and the impact of the internet upon the way business is now conducted<sup>1</sup>.

Some argue there is an historical pattern to all this. According to *The Economist's* most recent survey of the IT industry, technological revolutions appear to follow broadly similar cycles. Thus, in the mid 1840s, when the brief bubble in British railway shares collapsed and hundreds of new companies went bankrupt, the growth in railway traffic was barely affected and grew exponentially in the following two decades. Sadly, for the railway companies (and depressingly for IT companies), most of the economic value created by the railways was not reaped by the railway companies themselves but by companies like Sears in the US and WH Smith in Britain who exploited the new markets which were created. As technology moves from a frenzied period of innovation towards a more measured period of deployment and exploitation, it seems, much of the value is likely to accrue to the industry's

customers rather than the producers. *The Economist* predicts that computer hardware will ultimately become a commodity and the computing industry itself a utility, much like power generation. IT, which has, in recent years, become the major item in companies' capital expenditure, will move accordingly from being a fixed to a variable cost. IT value will not be created by the IT industry per se, but by the users of IT – some of them internet-based like Amazon and E-Bay – but also by more traditional bricks and mortar companies like banks and insurance companies<sup>2</sup>.

## Digital shake-outs

Industry shake-outs are a much studied phenomenon in business history. Even comparatively young industries like IT have witnessed waves of creative destruction. So the recent cull of digital technology companies should not come as a surprise, even if the short period from growth to shake-out is unprecedented.

What lessons, however, can we draw from recent shake-outs in the IT industry about who the likely losers and winners will be? As George Day et al point out in their recent study of business-to-business exchanges<sup>3</sup>, the first lesson is that 'revolutionary insurgents' – like pure-play dot-coms – only prosper in breakthrough markets. Alas, most of the applications and propositions put forward by these companies failed to change the basic structure and logic of existing markets. 'In retrospect, the vast majority of applications on the internet were to re-form markets, so



Technology revolutions appear to follow broadly similar cycles

it follows that the prospects for most pure-play start-ups were delusional in the past and bleak in the future'<sup>4</sup>.

Most internet-based companies over-estimated the change in customer buying patterns

Day et al illustrate this with their research on so-called business-to-business on-line exchanges, formed typically in 1999 or 2000 by new entrants who thought that they could link together buyers and sellers in an industry, offering them the facility to exchange information, create on-line catalogues, automate the procurement process, create auctions for supply contracts and dispose efficiently of inventory. With few barriers to entry – and universal open standards for exchanging information via the internet – the B2B exchange industry was soon flooded with new entrants, all of whom seemed to share the same goal of scaling up rapidly.

The inevitable crash followed in 2001/2 as it became clear that the industry would not support all these players. The main industrial companies, upon whose participation the success of these enterprises depended, had become sceptical about the benefits of on-line exchanges, fearing that their transparency would increase pressure on margins and doubting that the much touted technology would live up to its promises.

Moreover, incumbent companies were able to trump the new entrants by setting up consortium-based exchanges or by simply internalising the exchange process through their own private networks. 'One plausible scenario is that each industry will eventually have one or two public exchanges to help buyers and sellers find each other. Subsequent transactions would take place on private networks where logistic arrangements could be optimised and proprietary information safely exchanged. A few specialised exchanges would be available to conduct auctions or offer specialised services such as financing or moving excess inventory. In short, the supply chain would be more efficient but the market landscape would look much as it did before the boom in independent exchanges. This is a scenario which is applicable to the large majority of e-commerce applications.'

Note here the conclusion: the technology had a major impact on the industry but not on the industry structure. Only in break-through markets which transform customer behaviour and create new needs will new entrants typically succeed. In reformed markets, existing players will be able to leverage

their resources, reputation and relationships to take best advantage of new technology. According to Day et al, most internet-based companies over-estimated the extent to which customers would change their basic habits and purchasing patterns.

This, then, limited the potential for successful break-through strategies. This is not to say that break-through applications did not occur – indeed prizes did genuinely go to those who were successful in growing quickly to dominate their sector – such as Amazon and E-Bay. For those insurgents that remain and have not successfully adapted their strategies to the new reality, discovered an under-exploited niche or simply run out of cash, the likely scenario is for the company to be acquired by astute incumbents. Day et al borrow an aphorism from the property industry – 'first owner loses' to describe this: ie large companies often can take the opportunity of buying up pure-play start-ups at a fraction of the total capital required to create the technology and thus are able to generate economic profits.

### Responding to disruptive strategies

How should incumbent companies respond to so-called 'disruptive strategic innovations'? According to Constantinos Charitou and Constantinos Markides<sup>5</sup> the short answer is, don't panic! By disruptive strategic innovations they mean non-traditional approaches to doing business which emphasise different product or service characteristics than those conventionally adopted by the industries concerned. Significantly, their list of examples includes both e-commerce business models as well as other revolutionary strategies which pre-date the internet like direct banking and insurance, low cost airlines and the introduction of mini-mills in the steel industry.

Of prime importance, they believe, is the distinction between technological innovation and strategic innovation. Thus, technological innovations, eg computers replacing typewriters, generally have a profound impact on an industry and upon incumbent players which fail to make the transition from the old to the new technology. Strategic innovations, ie new ways of competing in industry, are different. They often start as relatively small scale operations, targeting price-sensitive customers or small market niches and then grow rapidly to a

There is a difference between technological and strategic innovation

substantial size. Crucially, they rarely grow to challenge the fundamental economics of the industry, typically settling at no more than 20% of the total market. Incumbent companies faced with strategic innovations are, therefore, not compelled to embrace the new technology: they could afford to 'stick to their knitting!' Unless this technology is based upon a competency which the company possesses or can easily develop, it may make more sense for the incumbent to ignore the innovation.

Despite this, most of the companies surveyed in this article did decide to embrace the disruptive innovation in their respective industries, notwithstanding the potential conflicts of managing the traditional business model alongside the new innovation. Most of the companies that did go this route, however, took the decision to operate the new business in a separate unit with a separate brand and significant managerial autonomy.

By contrast, few of the companies surveyed in the research embraced the innovation completely and transformed their entire business model accordingly. Although there are obvious risks in this type of wholesale transformation, the authors believe that established companies have clear advantages over pioneers in their ability to scale up a new innovation. "What is amazing is how few established competitors consider it... history suggests that those companies that pursue this option successfully create a basis for tremendous growth for years to come"<sup>6</sup>.

### Why some incumbents survive

In fact, as Charles Hill and Frank Rothaermel point out<sup>7</sup>, the academic literature tends, axiomatically, to assume that incumbents will be slow to recognise radical innovations and reluctant to make revolutionary changes. New entrants, by contrast, will have less baggage to carry and less to risk if things go wrong. "The empirical fact is that the majority of new entrants fail but new technology has often induced significant entry. It only takes a handful of 'experiments' to be successful for discontinuity to usher in the decline of long-standing incumbents"<sup>8</sup>.

This 'standard model' of incumbent behaviour, however, does not explain how it is that some incumbents manage not only to

survive new innovations, but in some cases also to pioneer radical technological departures and even to dominate the market post-discontinuity. "While the average performance of incumbent enterprises does decline following the arrival of radical innovation in technology, there is considerable variation in the speed and size of this decline even within a given industry."<sup>9</sup> Hill and Rothaermel go on to develop (but not test) a series of theoretical propositions about how incumbents can master the challenge of radical technological innovation.

Most of these propositions revolve around the management-style, structure and culture of established players. Thus, success is more likely to flow from the close coupling of basic and applied research. Decisions about investment in research should be based on a 'real options' approach, ie investing to find out about future technologies, avoiding technological lock-out and keeping the company's options open. Likewise, incumbents are most likely to survive where the culture of the organisation sanctions autonomous action in experimentation, particularly by middle-level managers, but where the organisation has the capacity to identify the potential of the technology and swing its resources behind it.

Hill and Rothaermel are particularly impressed by the pharmaceutical industry. Here, they say, is an example of an entire industry where incumbent companies have survived and prospered despite the emergence of a new revolutionary technology in the form of bio-science companies. To understand why, we need to disentangle the impact of radical technological innovations on downstream as well as upstream elements of the incumbent's value chain. Thus, in some cases, the new technology can nullify accumulated expertise in research and development and make existing production facilities obsolete.

However, they say, it need not necessarily diminish the value of the incumbents' downstream assets in distribution, marketing and sales. The cost for bio-technology companies of scaling up production facilities and of gaining access to the market for their products clearly prevents most of them from integrating forward and dictates a pattern of collaboration between the incumbents and the insurgents. This is all the more so in cases like pharmaceuticals where the gestation period for the innovation is likely to be long and hence the reliance on the resources of

Success is more likely to flow from the coupling of basic and applied research

New entrants have less baggage to carry

incumbent companies greater, since they have the scale, scope and resources needed to absorb the effort and spread the risk.

### The strange survival of vertical integration

Readers will note that two of the contributions referred to in this issue have mentioned vertical integration as an incumbent's response to innovation, ie large manufacturing companies with on-line exchanges and pharmaceuticals with bio-technology. Much of the recent writing on the impact of the digital economy, eg the work of John Hagel and Mark Singer reviewed in a previous issue<sup>10</sup>, talk about the disaggregating of traditional value chains and the unbundling of the corporation.

The argument, readers will recall, is that with the adoption of ubiquitous low cost means of transmitting data irrespective of location, the rationale for conducting all operations within one organisation, let alone in one location, has disappeared. As the economic logic of different aspects of the value chain – eg research versus manufacturing versus distribution – is likely to be very different, the industrial landscape will be re-configured with companies concentrating on one or other of these discrete, specialised roles.

Despite this influential argument, Thomas Osegowitsch and Anoop Madhoc<sup>11</sup> believe that the death of vertical integration has been much exaggerated. The traditional rationale for vertical integration, they say, boils down to two main categories:

- strategic considerations; and
- efficiency considerations.

Strategic motives for vertical integration generally involve making it difficult for competitors to enter markets, retaining control over proprietary know-how or cross-subsidising different stages of the value chain in order to force out more focused players. Efficiency considerations generally revolve around avoiding the cost of transacting between a supplier and a buyer in an open-market situation. In certain situations – where the environment may be too turbulent or the task too complex – the external market may fail and so, to avoid opportunistic behaviour, vertical integration may be preferred.

Osegowitsch and Madhoc concede that these traditional reasons for companies engaging in vertical integration have lost much of their force. It is no longer necessary for – eg a manufacturing company – to integrate backwards in order to ensure timely delivery of quality components. Digital technology has solved that particular problem. Nor is it necessary for a company to own its suppliers in order to ensure close spatial integration of successive stages in the manufacturing process, since suppliers routinely co-locate with producers in major manufacturing industries. Moreover, the internet has improved transparency and reduced the cost of search, whilst convergence between traditionally separate industries and liberalisation of trade barriers have removed much of the strategic rationale for vertical integration.

Despite this, well-known companies like GE, IBM and Ford continue to engage in vertical integration, particularly downstream or forward integration. Osegowitsch and Madhoc believe that one of the drivers for this is that the value created in traditional industries is migrating downstream. As product life-spans become extended, much of the value in a transaction is created by the after-sales service. Not only that, but there are limited ways in which traditional players can differentiate their products.

So, companies are looking to differentiate themselves – and thus avoid margin erosion – by bundling the product with more sophisticated downstream services or by investing in brand management, which then leads the company to integrate forwards in order to control the customer relationship more closely. Paradoxically, the disintegration of some companies has even created the demand for integrated solutions from suppliers. Thus, first tier suppliers in the automotive industry – in order to retain the custom of original equipment manufacturers – are forced to integrate further backwards to provide their customers with the advanced technology they require.

Osegowitsch and Madhoc believe that the drive towards forward integration is driven by learning motives and, specifically, the desire to secure a better understanding of customers' needs. Getting a good understanding of customers' needs and how they are changing requires a deep understanding, with many elements of so-called 'tacit' knowledge, which is difficult to acquire at one remove or through the transmission of

As product life-spans extend, much value in a transaction is created by the after-sales service

digital data. 'Direct and close interaction with customers enables greater information-sharing, which, in turn, results in a more

prolific and rapid generation of ideas as well as quicker and more error-free testing of these ideas in the market place'<sup>12</sup>. MU

### References

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| <p>1 See, eg <i>Business Week</i>, May 12 2003, pp 40-46</p> <p>2 'Coming of age – survey of the IT industry' <i>The Economist</i>, May 10, 2003</p> <p>3 'Shake-outs in digital markets: lessons from B2B exchanges' Day, GS, Fein, AJ and Ruppertsberger, G <i>California Management Review</i>, Vol 45, No 2, Winter 2003, pp 131-150</p> <p>4 Ibid, p132</p> <p>5 'Responses to disruptive strategic innovation' Charitou, C and Markides, C <i>MIT Sloan Management Review</i>, Winter 2003, pp 55-63</p> <p>6 Ibid, p 63</p> | <p>7 'The performance of incumbent firms in the face of radical technological innovation' Hill, C and Rothaermel, F <i>Academy of Management Review</i>, Vol 28, No 2, 2003, pp 257-274</p> <p>8 Ibid, p 262</p> <p>9 Ibid</p> <p>10 'Unbundling the corporation' Hagel, J and Singer, M <i>Harvard Business Review</i>, 77/2, March to April 1999, pp 133-142</p> <p>11 'Vertical integration is dead or is it?' Osegowitsch, T and Madhoc, A <i>Business Horizons</i>, March-April 2003, pp 25-34</p> <p>12 Ibid, p 32</p> |
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