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Mobile commerce and contextual marketing

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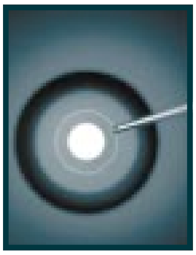
The impact of mobile commerce may be greater and more rapid than that of e-business linked to personal computers. Contextual marketing will take messages about your products and services to your customers wherever they are, at any time of the day or night. Conventional ideas about marketing will be destabilised. There will be a new value chain that brings in new competitors from outside existing market boundaries. Businesses will therefore need to adopt new marketing strategies.



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Mobile commerce is developing at great speed. According to Barnett, Hodges and Wilshire[1], over 300 million people around the world possessed a mobile telephone in 2000. This is more than the number who owned a personal computer.

This article looks at the impact on marketing strategy development of mobility and the boundaryless scope of the Internet. Achieving customer satisfaction and repeat business through personalised service is an important strategy for e-commerce and m-commerce businesses, and this requires an intimate understanding of the customer. The article also looks at how to create satisfied customers in a virtual environment. Finally, some practical guidance is given that is based on research on leading companies that lead the field in customer knowledge management.

Contextual marketing

Kenny and Marshall[2] questioned the value of existing Internet strategies based purely on websites, and they showed that many destination websites have met with mixed success, despite the substantial sums invested in them. Of course some have been very effective in developing relationships with customers and generating repeat business, but this approach does not always satisfy the requirements of companies and their customers.

In a mobile, digital, personal, interactive, accessible and wireless future, Kenny and Marshall argued, firms will need to think beyond conventional marketing and marketing on the Internet and focus more on contextual marketing :

> *In three to five years, the ubiquitous Internet will begin to unfold. Consumers will be constantly enveloped in a digital environment, and marketing strategies will have to change radically. Websites, the centrepiece of most of today's strategies, will be only one piece of a much larger and more complex puzzle.*

Contextual marketing means thinking beyond the development of destination websites, where the customer comes to you, and taking the messages about your products and services to the customers wherever they may be at any time of the day or night.

Although Kenny and Marshall stated that contextual marketing will destabilise conventional marketing, the reality is that contextual marketing principles go straight to the heart of the traditional marketing concept :

- Customers' needs are at the core.
- Information is central.
- Relationships, including customer loyalty and service, are key.
- Segmentation and targeting are crucial.

To maximise their opportunities to reach and connect to the customer, organisations may first need to use the Internet more effectively.

For example, rather than use expensive banner advertising to attract customers to their home websites, companies could take their offering to other sites frequented by their customers.

Pharmaceutical and consumer goods company Johnson & Johnson uses its knowledge of its customers to link to online teen communities and chatrooms, thus increasing its access to its target audience at low cost and for a limited site investment. As Kenny and Marshall stated, 'J&J inserts itself into a pre-existing relationship at the optimal moment'.

Marketers also need to use emerging technology to access their customers wherever they are, that is, in their context/environment. This technology now goes beyond computer-based Internet access and mobile telephones to interactive television, digital/e-wallets, Internet-enabled point of sale terminals, Internet kiosks, and always-on broadband Internet access.

Such new access points will allow companies to personalise and tailor their offers at the moment of customer need. Companies will be able to contact customers while they are shopping, for example, to remind them that they are running out of a particular product or to make suggestions for presents to buy for friends and family.

Opportunities for contextual marketing will also stretch beyond the office and the home and become ubiquitous as Internet access becomes widespread. This will revolutionise the management of the marketing mix as communication with the customer will be direct, tailored and instant. Pricing levels will no longer be fixed but flexible. Constant contact with the customer will bring changes in distribution and service delivery, as 'mobilemediaries' will put the customer in contact with products when and where customers are ready to buy.

Kenny and Marshall advised companies not to wait to see how technology develops before devising marketing plans for the future. Companies should, in their view, be assessing their competencies and developing skills in preparation for life in the 'digital bubble'.

Mobile commerce value chain

The new mobility will perhaps have the most profound impact on the wireless operators. Their prime position as both owners and operators of mobile networks will allow them to compete widely, and it will give them the potential to compete in all stages of the value chain.

Barnett, Hodges and Wilshire[1], for example, identified seven links in the value chain for m-commerce :

- transport and infrastructure;
- enabling services (systems, servers, and so on);
- transaction support;
- presentation services;
- personalisation support (tailored to customers' needs);
- user applications;
- portals developed by content aggregators that are suitable for navigating the Internet on small-screen mobile telephones.

In many respects, the mobile/wireless operators are spoilt for choice, and this is clearly an advantage. However, Barnett, Hodges and Wilshire suggested that they need to specialise in areas where they can develop competitive advantage, that is, they should build on their strengths, experience and brands in

- transport;
- content aggregation;
- personalisation;
- transaction support.

In their view, mobile operators should consider four strategies :

1. *Develop data traffic* : Soon, the volume of data transfer and text messages will exceed voice-based telephony business. Unsurprisingly, Barnett, Hodges and Wilshire suggested that consumers will be attracted to those providers that excel in supplying data services. They quoted research by management consultants McKinsey & Company which suggested that 50% of all subscribers in the Asia–Pacific region would switch operators to improve data services.

2. *Develop partnerships with high-quality content providers* : The large quantity of customer/consumer information that a mobile operator will be able to provide to content providers will be a valuable asset. Because of limited on-screen space, an online retailer will need to provide a service to mobile telephone customers that is both personalised and focused, and this will require it to have precise information on the person it is targeting.

3. *Become a portal provider* : The possession of this personal information will encourage mobile operators to develop their own portals. Barnett, Hodges and

Wilshire suggested three strategies :

- development of their in-house expertise and their own portal;
- outsourcing;
- co-branding with an established portal.

The operators will be able to create a captive audience, as they will be able to configure their telephones to ensure that their own portal is the default screen.

4. *Transaction management* : Operators can already manage billing and payment collection for their existing customers. A logical development would be to offer these same services to vendors and content providers. The cost of any purchases would then be charged to mobile telephone accounts instead of credit card accounts. This would move mobile telephone operators into a highly competitive area in opposition to credit card companies. Credit card companies have already counter-attacked, for example through direct relationships with mobile telephone handset retailers such as Nokia.

The business development possibilities for mobile telephone operators are extensive, but Barnett, Hodges and Wilshire cautioned them about the danger of over-extending themselves, emphasising their view that it will be the specialists who succeed in the long term.

E-satisfaction

A key yet little researched issue that companies should consider when operating in the virtual environment is customer satisfaction.

Szymanski and Hise[3] explored e-retailers' promises, customer expectations, and satisfaction. They identified four factors that were important to customers :

- merchandising;
- convenience;
- financial security;
- site design.

They found that merchandising in the form of 'richer information' and 'superior assortments' of products which might lead to improved decision making is not one of the significant factors in e-satisfaction.

The factors most important to customers are site design and convenience (one often leads to the other). The functionality of the site (its organisation and the ease with which customers can search for products and services) also leads to positive customer feedback. According to Szymanski and Hise, 'shopping is thought to be pleasurable and satisfying to customers when the retailing sites are fast, uncluttered and easy to navigate'. Internet retailers are often perceived as being more convenient than traditional shopping experiences when a customer can identify savings in time and effort.

Security of financial information is also crucial in creating satisfied customers, the authors stated. This is supported intuitively and by past research[4] that has highlighted customer concerns about privacy and fraud when buying from e-retailers.

Customer relationship management

One of the many attractions of e-commerce and m-commerce is that they allow companies to focus on individual customers and tailor products and services to them.

This is partly possible because of the availability of valuable customer transactions data. However, a key concern in the management of customer relationships is the sheer amount of customer data that is collected, stored and analysed despite the fact that there is little evidence that organisations are any better informed about their customers as a result. Yahoo, for example, gathers 400 Gbyte of data every day.

Davenport, Harris and Kohli[5] stated that transactional customer data is not sufficient. For them, 'insightful companies mix rich customer data with their understanding of the people behind the transaction'.

They also tried to identify the factors that have led to the success of leading US companies with highly developed customer knowledge systems in this area. The successful companies seem to be those that mix transaction data and an understanding of the person making the purchase.

Davenport, Harris and Kohli highlighted a number of crucial steps :

1. *Concentrate on valued customers* : Managing customer relationships is

costly, and so the first step is to understand the value of customers and then concentrate on the most profitable ones.

2. *Define objectives* : The organisation should develop customer relationship management objectives. These should include the following :

   - Segment customers according to purchase histories and product and price preferences.
   - Prioritise customers according to need and urgency.
   - Understand customers' knowledge requirements.
   - Develop an awareness of customers' Internet behaviour.
   - Develop customer retention objectives and generate customer loyalty.
   - Focus on innovation.
   - Extend the product and service mix to offer packages that customers require.
   - Develop cross-selling to extend the breadth of transactions with customers.

3. *Strive for optimal data mix* : The management of transactional data is a huge undertaking. The company Fingerhut, for example, has a data warehouse that can hold 4.5 Ebyte (10^{18} bytes). The most difficult element is still the management of personal customer data. The collection of this data requires the use of conventional marketing research methods, such as observation techniques and focus groups. That data can, when analysed, be used to develop 'highly detailed mental maps that capture the customers' thinking about various products'.

4. *Store data separately* : The development of a single integrated storage facility for customer data is often not practical when the data is too diverse. The authors' research showed that the leading companies are not moving in this direction. Companies should integrate data of the same kind and coordinate separately held transactional and personal data.

5. *Manage personal/human data creatively* : The authors' research also identified a strong drive towards using personal or soft data. They quoted a Hewlett–Packard executive who stated that the firm's ambition was 'to delight our customers by providing them with what they value and may not even know that they find important'.

6. *Examine the broader context* : If customer knowledge and relationship management programmes are to be successful, they need to be integrated into the culture of the organisation and incorporated into its structures and processes. The authors suggested that organisations need structures that put the customer at the heart of the process, and that have customer data champions, knowledge centres, and an overall customer-centric culture.

7. *Create data management tools and develop planning processes* : The authors emphasised the need to plan the implementation of the customer data and relationship management carefully. These processes should focus on the fundamental issues for data collection interpretation and communication to ensure support for those who are responsible for sales.

Thus at the heart of marketing for e-businesses and m-businesses lies the need for customer satisfaction achieved through tailored products, services and experiences that reach out to customers wherever they are located.

> *Companies that can anticipate and meet the real needs of their customers – based on where they are located, what they do, and which communities of interest they belong to will be valued partners. The companies that cannot will be dismissed as pesky nuisances.*[2]

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Balancing work, family and life

The stresses of working life can take their toll on life at home. Family, health and friends may be low on the list of priorities. As the competition for talent is so great in many sectors, employers should tackle this problem. A work/life balance policy can have distinct business advantages, but organisations must ensure that it is fair. Once established, these benefits are difficult to withdraw if the business falls on hard times.

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The economic and social changes that have led to the war for talent have also created the current interest in work/life balance.

Is this a trend that is here to stay because it meets the needs of organisations and their employees, or is it just another fashion ? Work/life policies seem to provide the flexibility that the 21st century organisation and its employees want and need.

There is currently an emphasis on work/life balance partly because the workforce is becoming more diverse. Women play an increasingly significant role in the economy, and maternity provision is becoming more important. Work expectations too are changing, with employees increasingly wanting to balance work and life needs.

The so-called members of Generation X (who came of age in the 1980s) value self-reliance, entrepreneurship and honesty. They want a work/life balance without sacrifice. Similarly, the generation currently at secondary school expects to work hard, be treated well, do work that is meaningful, and have a personal life outside the office[1].

The desire of employees to have their non-work needs met is matched by the desire of consumers to have greater choice. Because of the growth of consumerism and the 24 hour society, organisations must find ways of responding flexibly to their customers and their employees. New technology has facilitated this process, for example by supporting home working and teleworking. Governments too are encouraging flexibility.

However, it is important that work/life policies and practices be different from the 'family friendly' policies of the 1990s. These sometimes generated a backlash from those employees who did not benefit from them and/or had to cover for colleagues with families. Work/life policies should be open to all, regardless of, for example, sex.

Achieving work/life balance is not about reducing productivity; it is about giving employees more control over their work arrangements.

Implementing a work/life balance policy

The first step in the successful implementation of a work/life balance policy is to establish the business case. This is also the key to gaining the support of line managers whose resistance might otherwise jeopardise the implementation.

A November 2000 Incomes Data Services study[2] pointed out that there are typically two key strands in the argument for such policies :

1. Productivity will increase as employees repay the organisation with greater loyalty and motivation, and absenteeism and staff turnover will be reduced.
2. Staff recruitment and retention will be improved.

The process of implementation may take at least 18 months to achieve. There are several steps :

- The business case is researched, including benchmarking.

- The workforce is consulted, through focus groups for example.
- The policy is promoted, for instance through demonstrated board-level support, links with other initiatives, and employee guides.

The implementation of a work/life balance policy often requires a culture change, which is not a short-term process. Such policies need a culture of trust in which the organisation is open to people working flexibly and fitting work commitments in with their personal interests and responsibilities. The implementation of these policies is often associated with shift towards a performance management framework in which output rather than input is measured.

The potential impact of a culture change was illustrated by Deloitte Touche Tohmatsu's Women's Initiative[3], which was aimed at 'winning the talent war' for women. The promotion of a work/life balance was one of its six principles. The initiative recognised that work/life balance was important for both men and women, and its benefits were open to all, regardless of sex. One important element of the change was a move away from a long-hours culture when specific projects allowed for this.

Interestingly, the new approach was valued not only by the firm's employees, but also by its clients. The initiative seemed to open up the firm's corporate culture, and it transformed the business into one in which people felt comfortable about discussing their personal lives. Deloitte Touche Tohmatsu is now retaining its rising stars, both male and female, and is promoting an environment that encourages creativity.

Typical elements of a work/life balance policy

The IDS study[2] found that the elements of a work/life balance policy typically fell into four broad categories :

1. *Flexible working* : This is the core component of the policy. It may include any of the following :

   - part-time working;
   - 'v-time' (voluntary reduction in working hours);
   - a compressed working week;
   - term-time working;
   - unique (individually tailored) working patterns;
   - flexible shift working;
   - flexitime;
   - job sharing;
   - home working.

2. *Special leave and time off* : People's priorities and requirements may change at various times in their working lives. Measures that recognise this include

   - career breaks;
   - sabbaticals;
   - care leave.

3. *Help with childcare* : Childcare facilities can include

   - nurseries for pre-school children;
   - school holiday clubs.

4. *Work/life health and well-being* : Examples of this type of benefit are

   - independent counselling;
   - occupational health services;
   - medical check-ups;
   - pre-retirement planning.

This list is not comprehensive, and different schemes may have different elements. The benefits may not be 'new' in themselves. The key difference is that they should be open to all.

An important point that is sometimes overlooked is that the various parts of an individual's life interact with each another. Conflict between a person's work and life roles, for example, can have a significant negative impact upon his or her job performance and overall satisfaction with work and/or family life.

Do work/life policies make a difference ?

Evaluating the benefits of human resources policies and practices is not always easy. It can take time for advantages to be felt. It may also be difficult to gauge the impact of one particular factor.

Two common work/life policy measures are absenteeism and staff turnover. There is also evidence that such policies can impact upon productivity.

Konrad and Mangel[4] defined work/life programmes as initiatives aimed at helping employees to manage their paid work together with other important life activities.

Such programmes may also build on 'high commitment' human resources systems that are designed to provide employees with

- development opportunities;
- participation in decision making;
- high rewards for strong performance.

Not surprisingly, employers in return seek to attract and build a workforce that is highly committed and motivated.

A reduction in the conflict between work and family life that often leads to employee turnover and withdrawal is another aim of work/life programmes. They may also combat

- reduced work effort;
- lateness;
- absenteeism.

Work-schedule flexibility, for example, may reduce conflict and have a positive impact on employees' attitudes, motivating them to remain with the organisation.

While some work/life policies may have minimal cost implications (those relating to the provision of information, for example), others may be expensive. Organisations therefore need to know which work/life policies are likely to benefit the company most. Konrad and Mangel showed that such programmes probably create the most substantial marginal benefit for organisations that have a high percentage of professional and female employees. Firms that hire less skilled, less autonomous, and less highly paid workers may see negligible benefits in terms of productivity.

Their research seemed to deny concerns about 'adverse selection' (employees with high family demands being attracted to firms offering generous work/life benefits), because the overall productivity benefits of providing work/life programmes outweighed the likely costs of such potential adverse selection.

Konrad and Mangel suggested that work/life benefits may increase productivity even when they are not tailored to an individual employee's contribution. The provision of valuable benefits to groups of employees may increase the employees' overall effort in relation to their primary job responsibilities and beyond.

The authors found that firms that employed higher percentages of professionals and women were more likely to develop extensive work/life programmes.

Those that employed higher percentages of women appeared to achieve more productivity gains from such programmes, possibly because work/family conflicts interfere more with women's working lives than men's.

Professionals are relatively scarce, and may therefore be expensive to acquire and develop, and costly to lose. Their skills may be easily transferable, and the risk of losing them may be significant. Given that extensive education may be associated with delayed family formation, there is potential for work/family conflict during the years of peak productivity that may be manifested in terms of absenteeism and distraction from the job. Professionals value autonomy, and monitoring and controlling their productivity is difficult and costly. It may also be harder to define quantifiable outputs for their work.

In a situation in which a high level of trust and commitment is required, and where an organisation can benefit from ideas and efforts that go beyond specific job responsibilities, non-pecuniary compensation such as work/life programmes that are available to a group of employees and not tightly linked to individual job performance may function as a kind of 'gift' given by the firm in exchange for extra productivity.

Work/life benefits and organisational citizenship behaviour

Lambert[5] saw the adoption of work/family programmes as being founded in the desire to build high-commitment work systems.

She used a 'social exchange' framework to understand the impact of work/life initiatives. Social exchanges may develop obligations between the partners to reciprocate when they benefit from some person or entity's actions. The more useful the benefits are perceived to be, the greater is the desire to reciprocate.

The mechanisms of economic exchange do not fully explain performance over and above the demands of a particular job, or organisational citizenship behaviours such as loyalty and participation. Such non-traditional aspects of performance are better explained by factors such as the quality of the relationship between the partners in the exchange, and employees' attitudes towards and perceptions of the organisation, including notions of equity and perceived organisational support.

Lambert found that positive actions on the part of an organisation can ‘propel workers to reciprocate in beneficial ways’, and the ‘more useful they perceived the work–life benefits to be in terms of helping them and their families, the more likely they were to submit suggestions for improvement, to voluntarily attend meetings on quality methods, and to report that they assisted others with their job duties’.

There were some unpredicted aspects to the research. The more useful workers perceived the work/life benefits to be, the more supportive they perceived their organisations to be, and this perception of usefulness did not depend upon actual frequency of use. However, the more supportive they perceived this organisational support to be, the less likely they were to engage in some citizenship behaviours such as submitting suggestions for improvement. This finding may cast doubt on the link between perceived organisational support and citizenship behaviour, but it does not counter the view that work/life benefits can have a positive impact on the organisation.

The research suggested not only that work/life benefits contribute to job performance (when this is broadened to include organisational citizenship behaviour), but also that benefit plans promote citizenship behaviour independently of whether they increase perceptions of supportiveness on the part of the organisation.

The implications of this research for managers are that it is vital to consult employees about the perceived value of their benefits, and also to recognise that behaviour that is beneficial to an organisation is not always captured in narrow job descriptions. Furthermore, in order to promote that ‘extra-role’ behaviour, an organisation must provide appropriate rewards and inducements.

Bundling the benefits : a source of competitive advantage ?

Recent research has shown that human resources policies and practice are more effective when they are aligned to business needs and strategy and integrated, or ‘bundled’, together.

Perry-Smith and Blum[6] considered the relationship between bundles of work/family policies and organisational performance. A work/family bundle is a group of complementary and highly related human resources policies that help employees manage non-work roles. These policies in these bundles may vary, but what is important is the extent to which the policies are highly related and interactive.

Work/family bundles may signal the values and philosophies of an organisation, and symbolise its caring approach to its employees. They may encourage employees to reciprocate by

- contributing extra effort;
- developing a concern for the overall success of the organisation;
- embracing its goals.

Bundles of interrelated work/family policies may also be the source of sustained competitive advantage because the complexity and difficulty of their adoption mean that the advantage created is not easily imitated.

Perry-Smith and Blum found that the presence of work/family policy clusters was positively associated with firm-level performance. In particular, organisations with a greater range of work/family policies were found to have higher levels (in comparison with other firms doing the same kind of work) of

- organisational performance, in relation to such measures as product quality and ability to attract employees;
- market performance, including market share;
- profit and sales growth, in terms of percentage increases in sales and profits over a 12 month period.

Interestingly, the authors found that the relationship between work/life bundles and firm performance was not significantly affected by the proportion of women in the organisation, which suggests that sex is less important than other factors, for example life stages. This reinforces the view that a key aspect of work/life programmes is that they must be available to all employees.

Work / life policies : ‘best practice’ or ‘best fit’ ?

This article has reviewed evidence which suggests that work/life policies and practices may benefit employees by providing them with the flexibility to manage the boundaries between their work and private life. For the organisation, the benefits may be increased productivity and commitment.

Work/life policies may also bring wider benefits, such as employee performance beyond specified job roles, and an organisational culture that promotes openness and creativity. These policies may even be considered strategic (as Perry-Smith and Blum argued[6]), and they may be one of the growing list of 'best practices' of strategic human resources management.

However, employers need to consider carefully the particular mix of benefits they provide. One potential danger of the 'best practice' and 'employer of choice' movement is that it may lead employers to ignore their specific business needs and contexts.

There are various reasons for introducing work/life policies, and different types of employee have different needs. Each individual has a specific combination of values and expectations, and this means that his or her particular 'psychological contract' must be unique.

Nevertheless, work/life balance benefits should be considered by all organisations and applied to their particular circumstances.

Finally, organisations need to be sure that their work/life practices can be sustained if the economy worsens. Withdrawing benefits in these circumstances may be worse than not introducing them in the first place.

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Corporate amnesia

Can business leaders learn any useful lessons from business histories ? If not, what use are the case studies relied upon by business school teachers ? You need to unlearn the embedded conventional thinking in your own business. By the time you have identified the strengths and weaknesses of your business (as is often done in traditional strategic planning), it will probably be too late. The world will have moved on, and your business will have to develop new strengths to beat the competition.

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Arnold Kransdorff wrote a charge sheet for British industry[1] that accused it of systematically ignoring the value of business history, both as an academic discipline and as a tool for management development.

He argued that, although they are rare in the UK, well written and rigorously researched corporate histories can be an extremely useful resource in a world in which the labour market is becoming more flexible, and many companies are turning over their entire workforce every four years. In addition, good corporate history can help us to learn from past successes and failures and avoid reinventing the wheel.

The low status of business history in the UK is fortunately not mirrored elsewhere. In the USA, for instance, business history is firmly integrated within business school curricula. Authors such as Constance Helfat[2] and Alfred D Chandler Jr have emphasised the importance of business history to strategic management.

Dynamic capabilities

Clearly the strategy discipline can profit from business history and historical studies of companies. This is also well illustrated by Helfat's studies on dynamic capabilities.

Manager Update has often discussed the concept of capabilities or core competencies, which was developed by Hamel, Prahalad and other writers of the resources-based school of strategy. This has been one of the dominant ideas in strategy over the last 10 years. The weakness of the core competency idea, however, has always been that it is relatively static.

The theory assumes that a successful company will build sustainable competitive advantage upon the possession of certain resources or capabilities that cannot easily be replicated or imitated by other competitors. These capabilities are thus the building blocks for the company's strategy, and they govern decisions on investment, scope and acquisition.

The main criticism of this theory is that the competencies themselves can become outdated, and building a company's strategy upon outdated technology is surely a recipe for disaster. Writers in this field have searched for so-called dynamic capabilities that will enable mature and successful companies to avoid inertia and successfully extend, or in fact reinvent, their capabilities in the face of changing market conditions and technologies.

The dynamic capabilities school of thought also argues that new technologies often destroy competencies for incumbent companies.

For example, the new technology may require an entirely different set of skills from those that the company possesses, or it may destroy the way in which the company successfully combines various aspects of production to make a unique product. New technologies may also damage the value of a company's so-called complementary assets.

Researchers argue that a company's ability to create dynamic capabilities is determined by three factors :

1. processes;
2. positions (that is, the firm's current endowments of assets and relationships);
3. paths (the strategic options that are open to it).

These factors are, in turn, constrained by cognition or perception, which Bettis and Prahalad term a company's dominant logic[3].

Two established companies partially overcame dominant logic over time to develop new capabilities.

Case study : Polaroid Corporation

The Polaroid Corporation was founded by the brilliant inventor Edwin Land. Under Land's guidance, the company enjoyed several decades of commercial and technological success, and it built up what was a virtually monopolistic position in the field of instant photography. By the 1970s, the company's position was so strong that it was able successfully to repel moves by Kodak to enter its market.

Under Land's influence, and after years of successful innovation and commercialisation, the Polaroid Corporation evolved by 1980 a strong dominant logic. In other words, the senior management at Polaroid shared some common assumptions about the market and what it took to be successful :

- Polaroid should be technology-driven rather than market-focused. Its products should create markets instead of resulting from market research.
- Commercial success would come from major inventions, which would be the outcome of large-scale research projects conducted over a long period of time.
- Customers would always value a physical, instant print.
- Customers wanted a photograph that approximated as closely as possible to the photographic quality of 35 mm cameras.
- The business would be run on the so-called razor–blade business model. In other words, the company would deliberately sell its cameras at a low price to stimulate demand for the film that generated most of its profits.

After the commercial success of its chemical instant photography, Polaroid began to invest in digital imaging in the early 1980s. However, its two main projects were still very much conditioned by the company's dominant logic.

A great deal of research and development effort was expended on creating an instant-digital-camera/printer product. This was a hybrid product that combined instant photography and electronics. Rather than provide customers with the ability to look at images on a small screen, Polaroid offered the benefit of an immediate print.

However, low-cost electronics manufacturing, a rapid product development capability, and a new sales and marketing focus were ruled to be outside the company's existing capabilities.

Despite its heavy investment in digital technology and several important technological advances in the field during the 1980s, Polaroid's traditional dominant logic remained intact until the mid1990s, when the company accepted that it would have to become more market-driven. A new electronic-imaging marketing group was created that was staffed by people recruited from outside the company.

The recruitment of these outsiders exacerbated tensions within the senior management team. The new staff constantly challenged the dominant logic (especially the razor–blade business model). The senior managers constantly reiterated that the company did not possess the capabilities to make money from imaging hardware, fearing that this would inevitably bring them into direct competition with consumer-electronics companies.

As a result, most of Polaroid's imaging technology either came too late to the market or was a commercial flop. It was only in 1996 that the organisation finally embraced consumer marketing after the arrival of a new CEO who also made major changes in the top management. Polaroid Corporation then quickly focused on incremental developments rather than long-range fundamental inventions. Even so, elements of the old dominant logic still remained, notably in the company's adherence to the razor–blade business model and the importance of the physical image.

Tripsas and Gavetti[4] drew some important lessons from the history of Polaroid Corporation. Polaroid's relative failure to exploit the digital market lay not in its degree of willingness to commit resources and acquire technical competencies, but in its inability to see (owing to its existing dominant logic) how new technology would change current business models. One of the challenges facing all organisations is that of distinguishing between change that simply requires the development of new capabilities, and change that requires the adoption of a different set of assumptions and beliefs. Of course, not all technological changes mean that companies need to rewrite their dominant logic.

Case study : NCR Corporation

A useful counterpoint to the Polaroid history was Rosenbloom's study[5] of NCR Corporation (originally the National Cash Register Company).

NCR was established in 1884, and by 1911 it had 95% of the world market for cash registers. Top management at NCR recognised the future potential of electronics in the industry as early as 1938, and it was at the forefront of developments in computers during the Second World War. NCR emerged from the war as a market leader in the business-machine industry, but its core business focused on mechanical devices such as cash registers and accounting machines.

These products were all pieces of standalone, electromechanical machinery, and some were quite complex in terms of design and manufacture. They were mainly made in highly integrated facilities in Dayton, OH, USA, and sold to users by a large and highly effective field sales force, supported by a large service organisation. The company's leadership, its culture and its operating methods had changed little since the 1930s, and they would remain intact for another decade (see reference 5, p 1086).

It was not an unwillingness to invest which led to the company's failure to adapt successfully. In the early 1950s, for example, NCR committed itself to research into electronic data processing, and it subsequently acquired a small but innovative firm in the field. However, NCR's ability to capitalise on its investments in the new technology were constrained by the company's dominant logic.

The senior management at NCR believed that industry changes would come through evolution, and that computers, however good they might be at processing data, would still require input and output mechanisms to make them practical business tools. NCR thus saw its core products, the cash register and the accounting machine, as the essential input devices for the new electronic computers.

The way in which NCR viewed the evolutionary development of electronics in its market had a big impact on the way it organised itself to exploit its investments in electronics.

All the main decisions about product development, marketing and distribution remained firmly in the hands of those who had been conditioned by many years of experience at NCR selling electromechanical devices. Production was geared to the manufacture of machines containing thousands of parts with high degrees of vertical integration.

These were characteristics that were the reverse of those that obtained in electronic computer production. Product development cycles were not reduced either, despite the fast-moving marketplace of the evolving computer industry.

Although NCR successfully used electronics in its core product lines as early as the 1950s, revenues from electronic devices accounted for only 2% of the company's total turnover ten years after the decision was made to enter the computer business.

By the beginning of the 1970s, NCR's strong corporate culture had barely changed since before the Second World War. Its management style was described as formalistic and procedural, and the organisational structure was hierarchical and Byzantine. Managers typically spent most of their career with the company in just one role.

The patrician and elitist culture that existed within the firm was well summed up by one reporter in 1962 :

> *NCR has long been noted for the togetherness of its executive family. Oelman* [the CEO] *and many of his top aides live in Oakwood – a Dayton suburb just beyond the NCR plant, and except on the coldest days in winter, they meet on corners to walk in groups down the short hill to the plant. Senior executives lunch together daily at the same table in the Horseshoe Room established in the* 1930*s as a common venue for managers and factory supervisors.*

The chumminess of this group bred what was later called the 'Dayton mentality'. NCR staff in other locations were referred to as 'outsiders'.

The company's main manufacturing location had become a burden, rather than an asset.

Inefficient, over-manned, and almost totally vertically integrated, it was totally unsuited to the new world of electronic computers.

As more and more of NCR's core customers (in particular the major retailers in the USA) were clamouring for computerised point of sale systems, NCR clung to old-style electro-mechanical devices.

Sales revenue continued to increase, but NCR was losing market share. Critically, its return on assets went into steep decline until, by early 1972, the board was forced to cut the dividend.

At that point, the firm appointed a new outside CEO who did not share the Dayton mentality. He quickly committed the company to becoming an electronics producer, and within two years, he turned NCR from a traditional, vertically integrated manufacturer into a high-quality assembler of bought-in electronic components.

NCR's recovery was almost as dramatic as its decline. After converting the company into a producer of electronic point of sale devices, the new CEO saw NCR's market share rise to over 60% within two years. By that time, the company was producing its last mechanical cash register, the market for traditional cash registers having almost vanished within four years.

NCR also owed some of its recovery to the strength of its relationships with key customers. One executive pointed out the following (see reference 5, 1095) :

> *We had amazing customer loyalty. Nobody had a longer history of caring for customers. Sons of customers remember us. We did everything for our customers. We sold a system to the customer, not just a machine. We became part of the customer's organisation. They were reluctant to abandon us.*

Both the NCR and Polaroid cases have exemplified the problem of how a company with a strong dominant logic can fail to exploit its investments and develop new sources of competitive advantage.

For example, NCR's assumption that change would be incremental and that the basic business model would remain the same was overturned by the revolutionary impact of electronics technology. This is a useful reminder that radical change brought on by developments in technology is not a new phenomenon.

Several key elements of the companies' operations that had previously been core competencies (for example their manufacturing skills and sales forces) subsequently became core rigidities. Although NCR was successful again in the 1970s, it had missed many opportunities that it could have exploited more fully with its existing skills set. Clearly there were decision points in the evolution of the company and its strategy that blocked it from exploiting its early investments.

Rosenbloom commented as follows (see reference 5, p 1102) :

> *What stands out is that the creation of some essential capabilities implies a corresponding willingness to break commitments and take risks. The leader's main role perhaps is to own responsibility for the breach of commitments.*

These historical cases have demonstrated that, within any successful business, constraints are inevitably imposed upon radical transformation from within by a company's past decisions and resource commitments, and by the commitments that it makes to its own employees, its customers and other stakeholders.

They have also shown how dominant logic can constrain thinking and foreclose options, particularly in companies that have been dominated by strong and autocratic leaders. Even with a change of leadership and the recruitment of new senior management, the old ethos often remains.

Truths and misconceptions in the Internet business

Nowhere is there a greater need for systematic learning from experience than in the new and much hyped world of Internet business.

Rangan and Adna[6] listed seven strategy misconceptions about doing business on the Internet :

1. First-mover advantage is decisive in e-business. However, none of the traditional bases of first-mover advantage are as important in e-business as they are in the traditional bricks and mortar markets. The speed with which imitators can catch up with first movers has now also increased.

2. The authors argued against the misconception of reach and the assumption that the more customer heterogeneity a firm can handle, the more it will be able to grow its business. The point (and this is not new, as it really applies to all forms of business diversification) is that the more a company's scope expands, the less coherent its so-called activity system becomes. As a result, it is less likely to fit with the needs of the firm's key customers.

3. There is a closely related temptation to create a one-stop shop position (often referred to as a portal) on the Internet. This strategy carries the risk of loss of focus. The authors foresaw that this and diseconomies of scale would adversely affect those companies that tried to spread themselves too thinly. They argued that the logic of the Internet is actually that specialisation, rather than a generalised 'one size fits all' approach, is the best strategy.

4. The authors cautioned against the use of leverage, that is, combining your company's resources with those of other firms. Although the technology of the Internet might make it easier for such alliances to take place, it does not ensure that their interests are aligned across the firm's boundaries. The authors believed that ultimately, when things go wrong, what counts will not be seamless relationships but control.

5. Companies that position themselves as Internet companies need to identify clearly what their mission is, and in particular, whether they are seeking to capture value through providing the infrastructure, the applications or the content.

6. The authors were also sceptical of claims that Internet firms can be 'born global'. In other words, just because the Internet itself is without boundaries, this does not mean that companies become global simply by virtue of being on it.

   - The public must actually know about the business, which, given the huge numbers of new dot.coms, can be a task in itself.
   - The public must be prepared to trust the company, and such trust often comes only through local presence.
   - The public may expect the offering to be tailored to their own local market needs.

7. The authors denied that technology itself is strategy, as is often claimed by hi-tech companies. As they put it, 'the fundamentals of economics and strategy have not changed and are not about to'. Most importantly, customers (both present and potential) should be the drivers of strategy, not technology. Those firms that understand technology better than they do their customers are unlikely to succeed in any economy, old or new.

When observers point to Cisco Systems, Enron Corporation, Charles Schwab and Wal-Mart Stores as technology leaders, they are making an incorrect attribution for the success of these firms, which really results from responding to customer needs and aspirations. Only after these have been fulfilled does technology enter the picture in creative ways to deliver value in an effective and efficient manner (see reference 6, p 14).

This reminds us of one of the most enduring conditions for business success (highlighted by the above case studies), which rests on two strategy fundamentals :

- A firm has to have some kind of product advantage (such as Porter's differentiation) that must successfully address customer needs.

- Production advantage (Porter's cost leadership) is essential. It ensures that the firm can offer its products and services at an affordable price to its customers while making a reasonable profit.

Rangan and Adna[6] pointed out that, by this definition of success, while some technology companies, such as Nokia, Intel Corporation and Cisco Systems, have created sustainable positions, other Internet-based companies have yet to do this. Maybe it is time that e-business too learned from history.

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Estimating the cost of capital

The cost of equity capital is a core element in any calculation of shareholder value, but it can be difficult to estimate. One method is to ask investors what rate of return they require. However, the range of answers is wide, and there is a mismatch between the responses of industrialists and those of financiers. A key issue is the premium that is placed on the cost of capital to cover the estimate of risk involved. Is this likely to be higher or lower in the future ?

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The increasing focus on shareholder value means that the cost of capital continues to attract a great deal of attention in both the UK and the rest of Europe.

One key feature of the various shareholder value approaches is the emphasis on the economic returns generated by a business in relation to its cost of capital. Typically, this cost of capital is a weighted average cost of capital (WACC), which represents the returns required by all providers of finance.

The WACC has a very significant impact on value estimates in these shareholder value approaches. It also plays a key role in the assessment of performance in economic profit or Economic Value Added (EVA®) calculations. (EVA is a registered trademark of Stern Stewart.)

When performance is assessed, the importance of the WACC is evident only insofar as the criterion for achieving a positive economic profit or EVA is earning a return on capital invested in excess of the WACC.

However, WACC is a controversial subject. In particular, the basis for calculating the most difficult element (the cost of equity) has led to the development of many different views on the best approach to its estimation. For example, although the capital asset pricing model (CAPM) is popular for estimating the cost of equity, there is a great deal of debate about its validity in practice. Even its supporters are divided over the assumptions to be used in its calculation. One of its components, the equity or market risk premium, for example, can either be estimated historically, or on a forward-looking basis. There is potentially a difference between the two of up to 8% !

The Lex column of the *Financial Times* has commented as follows[1] :

> *The equity risk premium is an excellent concept but not a visible price. With academics and pundits prepared to come up with figures anywhere between zero and* 8 *per cent, the scope for companies to engage in creative accounting could be big.*

This article reviews

- cost of capital estimation practice in the UK;
- controversial issues in the estimation of the cost of equity;
- the results of research into the performance of models for estimating the cost of equity.

Practice in the UK

Despite the importance of cost of capital estimation, relatively little is known about cost of capital applications in the UK. Probably partly to correct this, Gregory, Rutterford and Zaman[2] reviewed how the cost of capital was estimated within 18 leading UK companies and eight financial institutions.

They selected 18 firms from among the largest 200 firms listed by market capitalisation on the London Stock Exchange. Each of the firms was from a different industry sector.

The companies used a wide variety of WACCs, ranging from 6% real to 13.5% nominal (that is, with expected inflation included). The average nominal WACC was 11.67% (standard deviation 1.22%), and the average real WACC was 8.79% (standard deviation 1.26%). Such WACCs were also adjusted to give higher hurdle rates for project appraisal purposes.

Typically, the most controversial element within a WACC calculation is the cost of equity. Three main approaches were used to calculate the cost of equity, with five of the companies selected using two approaches.

The three approaches used, and the number of companies using each, were as follows :

- capital asset pricing model (CAPM) (14 companies);
- dividend discount model (DDM) (five companies);
- real rate of return on equity (four companies).

The popularity of the CAPM model was, paradoxically, attributed to both its simplicity and its sophistication. The risk-free rates used in the majority of cases were estimated with reference to long-term gilt yields. With the beta estimates, the use of more than one source was popular, but a detailed statistical analysis of betas was not common practice. (See the appendix.) In addition, practitioners also recognised that the relevance of detailed beta adjustments has to be seen in terms of a cost/benefit appraisal.

Minor changes in beta estimates are insignificant by comparison with changes in the equity risk premium, estimates of which, as indicated above, can potentially differ by 8%. Most of those companies that calculated the equity risk premium used rates within the 4.5–6.0% range, with only two companies using longer-term historical rates of 7.5%.

No company estimated the cost of equity by used a multifactor method such as arbitrage pricing theory (APT), which is sometimes also referred to as the arbitrage pricing model (APM).

The average cost of equity used by the companies was 12.92% in nominal terms (standard deviation 1.29%), with the lowest being 11.5% and the highest 15.2%. Most companies used nominal calculations, although five calculated only real numbers. Two of the five were nationalised industries, in which real-rate benchmarks are the norm. The others had probably adopted one of the real-rate valuation approaches, such as cash flow return on investment (CFROI).

Eight institutional investors, including fund managers, analysts and actuaries, were also interviewed. Two of the interviewees did not attempt to estimate a WACC or a cost of equity, and of the six interviewees who did, only one made any systematic or formal use of CAPM.

The findings of the study showed that there was a mismatch between the perceptions of industry and those of the City. In general, the City viewed the cost of capital as being lower than the average corporate estimates. Possible reasons for differing cost of capital estimates are reviewed below.

Controversial issues

Equity (or market) risk premium

Recently, research has provided new insights into the equity risk premium. For example, Dimson, Marsh and Staunton of the London Business School[3] studied the performance of UK equities back to the early 1900s. They found that previous studies overstated equity returns, and that the equity risk premium was lower than the 8–9% historically quoted in academic texts.

Other research studies have also given estimates of the equity risk premium that are substantially lower than historical estimates. For example, Okunev and Wilson[4] commented as follows :

> *Our estimates are less volatile than the traditional ex post approach, and suggest that the average risk premium lies between* 4.5 *per cent and* 5.4 *per cent per year in the long and the short term.*

Pettit[5], in particular, made a compelling case against the use of historical ex post approaches to estimate prospective equity risk premiums, focusing his argument on the structural economic and market changes that occurred in the 20th century. These relate to changes that have produced a marked trend that suggests that early data are much less relevant for estimating current expected returns on capital :

1. globalisation of production and demand;
2. labour mobility;
3. market liquidity and growth;

4. market sophistication;
5. information and information technology;
6. agency costs;
7. government policy.

His argument was that, because of such developments, the risk of holding US equities has generally declined. At the same time, investing in government bonds has been riskier. The premium between the two types of security has thus been reduced. Pettit argued that, today, stock market investors expect a premium of about 5% over 30 year government bonds, based on the arithmetic average of annualised monthly stock return premiums over the 45 year period 1952–96.

Dimson, Marsh and Staunton[6] questioned what equity returns can be expected in the 21st century, suggesting three major trends :

- Investments in equities will remain risky because business itself is risky. The 21st century will bring its own forms of turmoil and volatility.
- If equities remain risky, investors should continue to expect a positive risk premium.
- Perhaps most importantly, the risk premium will be lower than it has been in the 20th century, even when it is calculated to include the more turbulent first half of the 20th century.

The authors concluded that the high equity risk premium values assumed to be reasonable in the mid1990s will not be viewed as such in the future. With the decline in real interest rates, the cost of equity and debt and indeed capital overall will be lower. This means that if companies do not recognise these trends in the cost of capital, they may well under-invest in the future.

This work went a long way towards reconciling some of the differences in the estimates of the equity risk premium provided by those using the historical approach and those using the forward-looking approach. Their work also showed that a look at financial markets history can help people to understand what the future prospects may be.

Risk-free rate

The equity risk premium represents the amount by which the return on a market portfolio of stocks is expected to exceed the risk-free rate. Very often, long-term government bonds are used as a proxy for the risk-free rate. However, as Booth and Pettit argued, this risk-free rate proxy is not completely risk-less !

According to Pettit, regression analysis of monthly returns (the same as those used by the London Business School Risk Measurement Service) suggests that 0.25 is a fairly reliable estimate of the current beta of long-term government bonds. If this is true, a necessary step is to develop a truly risk-free rate that has the characteristics of a zero beta, that is, there is no systematic or market risk.

To achieve this, the current yield on the long bond needs to be reduced by the systematic component of that yield, which is estimated by multiplying the current bond beta of 0.25 by an adjusted market risk premium.

This adjusted market risk premium reflects the fact that such premiums have been understated since the 1950s by the overstatement of the risk-free rate. On the basis of an observed and unadjusted 5% equity risk premium, Petit estimated that the adjusted risk premium was 6.7%, and that the amount to be deducted from the risk-free rate was therefore 1.7%.

What, then, are the implications of this ? As Pettit illustrated, using a 5.5% risk-free rate and a 5% equity risk premium, 1.7% is deducted from the risk-free rate and added to the equity risk premium, so that the new results for the two are 3.8% and 6.7%, respectively. Thus that might be a reasonable response, as the sum of the two is still 10.5%.

This is so provided that the third part of the CAPM equation in the form of the beta is 1.0, but not if there is a beta of less than or greater than 1.0. For a stock that is more volatile than the market and has, say, a beta of 1.5, the result would be different, that is,

$$\text{cost of equity} = 5.5\% + (1.5 \times 5.0\%) = 13.00\%$$

without the adjustment, as opposed to

$$\text{cost of equity} = 3.8\% + (1.5 \times 6.7\%) = 13.85\%$$

with the adjustment.

The cost of equity for a company with a stock with a beta of less than 1.0 would vary in the opposite direction, that is, the revised cost of equity would be lower after the adjustment. This adjustment to the risk-free rate has some potentially important implications for practitioners using CAPM.

Performance of models for estimating the cost of equity

Davies *et al*.[7] systematically examined the performance of the conventional models for estimating the cost of equity capital. They focused particularly on the capital asset pricing model, which, despite its apparent ease of use, raises difficulties when it is used to estimate a firm's exposure to market movements in the beta.

The traditional approach entails using five years of monthly data on returns to measure the firm's exposure, but Davies *et al*. found that small deviations in the approach to estimating the beta can cause wide and inexplicable fluctuations in the result. Only with about eight years of monthly data is there a respectable degree of stability in the beta estimates. Unsurprisingly, they recommended abandoning the traditional practice of using five years of returns data in favour of an eight year series.

The authors also reviewed the work of Fama and French[8], who suggested that a firm's returns are influenced not just by market movements, but also by the risk of a sharp economic downturn that might lead to its financial distress. Fama and French proposed two indices for capturing these distress risks, one based on the firm's size (total market value of equity), and the other on book-to-market ratios of equity. For them, an enhanced market model in which the market index is complemented by these two additional risk factors can provide a better explanation of the returns that investors demand from firms.

A detailed study of over 500 UK firms by Davies *et al*. supported Fama and French's argument. The authors also found that the risk of financial distress influences the returns of a significant number of UK firms, and the majority of firms influenced by this risk are exposed to distress because of their size. In other words, they are not seen as being large enough to survive a major economic recession undamaged.

This demonstrated that an enhanced version of the CAPM market model that incorporated these distress-related risk factors provided a more accurate prediction of the future cost of equity capital than the standard CAPM model, which only focuses on market-wide risks.

The conclusion of Davies *et al*. is that, if the objective is to improve forecasts of the equity cost of capital, the Fama–French enhanced model provides distinct benefits over the standard CAPM. Although the enhanced model is computationally more expensive, firms need to consider it. Indeed, while smaller and less-developed firms will feel the additional burden most heavily, they will be the ones that reap the greatest benefits. This is because they have the highest exposure to these risks.

Davies *et al*. also reviewed other approaches for estimating the cost of equity, for example the arbitrage pricing model (APM) and the dividend discount model (DDM).

APM is similar to CAPM and the Fama–French approach, but it is more flexible, as it does not specify any particular set of risk factors as the driving force behind investors' required rates of return. However, in practice, this flexibility poses great problems for the analyst, who has to search for the appropriate risk factors to use in the model without any assistance from the underlying theory.

Davies *et al*. examined the two main APM approaches :

1. the principal-components approach, which tries to construct factors statistically out of the actual returns of a large set of firms;
2. the macrofactor approach, in which analysts specify arbitrarily a set of macroeconomic risk factors that they believe to be relevant to the returns of the firm.

The results obtained showed that there is no reason for using APM in preference to CAPM or the Fama–French model.

DDM differs from CAPM and APM in that it is a supply-side model that works on the premise that the value of a stock must equal the discounted present value of all expected future dividends. The key problem in its application is estimating the growth rate of future dividends.

Davies *et al*. used three approaches to calculate this :

1. analysts' forecasts;
2. growth in earnings expected on the basis of the level of investment and the

profitability of the investment;
3. a model that combined analysts' short-term forecasts with a longer-term forecast on the basis of an assumption about the growth rate for the economy.

They found the estimates of the required rate of return derived from the DDM difficult to interpret. They also saw little consistency in the results when using the three different approaches to estimate the growth factor to be used. Estimates for individual companies varied over time, and those developed on an industry basis exhibited little additional stability.

Both the controversial issues and research into the performance of models for estimating the cost of equity can have an important impact on practitioners. Although arguments for the use of CAPM seem strong, there are important considerations when applying it to estimate the risk-free rate, the beta, and the equity risk premium. It will be interesting to see what impact, if any, it will have upon practitioner behaviour.

Appendix : Beta

The beta is a relative measure of a share's riskiness. The type of risk that the beta measures is called systematic, market, or non-diversifiable risk. It is caused by economic factors such as inflation, or political events, that affect the returns of all companies.

If the return on a company's shares is affected by these factors to the same degree as are returns for companies in general, then the company will have a beta of 1, and it will be expected to yield returns equal to those from the stock market. If the company's beta is greater (or less) than 1, then the company's shares will be priced such that it is expected to receive returns that are relatively greater (or less) than those from the market.

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