AFTER THE LAND GRAB

B2B E-COMMERCE IN AUSTRALIA AND NEW ZEALAND

December 2000

THE BOSTON CONSULTING GROUP
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For further contact about BCG’s e-commerce practice, please contact:

Peter Wetenhall
Director
Leader of the E-Commerce Practice - Melbourne
The Boston Consulting Group
101 Collins Street
Melbourne, Victoria 3000
Telephone: 613 9656 2100
Fax: 613 9656 2111
E-mail: wetenhall.peter@bcg.com

Greg Sutherland
Director
Leader of the E-Commerce Practice - Asia Pacific
The Boston Consulting Group
Governor Phillip Tower
1 Farrer Place
Sydney, NSW 2000
Telephone: 612 9323 5600
Fax: 612 9323 5666
E-mail: sutherland.greg@bcg.com

Rick Boven
Director
Leader of the E-Commerce Practice - Auckland
The Boston Consulting Group
23-29 Albert Street
Level 30
Auckland, New Zealand
Telephone: 649 377 2297
Fax: 649 307 0958
E-mail: boven.rick@bcg.com
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The Internet has emerged as a powerful force in business in the new millennium, ushering in an astonishing period of new business creation over the past year and a half. Aggressive entrepreneurial start-ups have challenged incumbents with new business models, commanding valuations that at times have defied belief. An unprecedented land grab has unfolded in Australia and New Zealand, resulting in the establishment of 283 e-marketplaces. In short, Chapter 1 of Internet-enabled e-commerce has been written, but what of Chapter 2? Incumbents are responding, capital markets are more discerning, and the distinction between old and new is increasingly blurred.

In this study, the Boston Consulting Group (BCG) aims to deepen the understanding of the forces that are shaping business-to-business (B2B) e-commerce in Australia and New Zealand. It also looks at the implications for businesses in the region and provides guidelines for successful participation in this dynamic arena.

Our starting point for this study was the significant BCG research on B2B e-commerce carried out in North America and Europe over the past two years. To understand the situation in Australia and New Zealand, we conducted interviews with a number of companies pioneering e-commerce in the region, analysed publicly available information from a wide variety of sources, and drew on experience from our own consulting activities. We hope this report will be a valuable resource for senior executives in major companies throughout the region.

We would like to thank everyone who participated in this study, including a number of companies who took part in interviews. Special thanks go to Artesian, webMethods, Lend Lease, Vertical Markets, Blue Star, e//olution, Freightways and SupplyNet. We also would like to acknowledge the contribution of the project team members from BCG, including Sandrina Postorino, Stephen Johnson, Darren Challis, Tamara Samuel, Abbey Perumpanani, Brendan Riley and Daniel Coyne, as well as Joost de Kock, Ross Love and Andrew McDonald. We hope that businesses will benefit from this study’s insights into the fast moving world of B2B.
EXECUTIVE SUMMARY

B2B e-commerce is poised to take off in Australasia
- Transaction values will increase from an estimated $17 billion in 2000 to $235 billion by 2005
- By 2005, 22 per cent of all transactions between businesses in Australasia will be online
- Financial services and logistics industries are likely to be early adopters
- Enablers such as trust and payments are vital to B2B e-commerce

Australia and New Zealand have experienced a land grab
- Despite today’s low transaction volumes, companies have rushed to set up e-marketplaces
- A total of 283 e-marketplaces have been created or announced, crowding nearly every industry sector
- Australasia’s largest businesses are entering the fray in competition with pure plays

The Internet is enabling fundamental shifts in the economics of trading between businesses
- Compromises forced on suppliers and buyers are being broken
- Value is being created through both the broadening and the deepening of trading relationships
- The sizes and sources of value vary greatly between different industries

Many of the new players that have set up e-marketplaces will fail
- Heavy competition, limited differentiation and Australasia’s concentrated industries are major constraints to achieving sought-after network effects
- Most are in for a rough ride as transaction fees fall, particularly in Australasia’s small-scale markets
- While e-marketplaces will disappear completely in many sectors, the standards they develop will create continuing value for B2B e-commerce participants

Australian and New Zealand’s leading businesses stand to gain from e-commerce, but not the way they are expecting - they must quickly evolve beyond their current defensive focus
- A ‘me-too’ B2B e-commerce program is necessary to maintain competitiveness, but the benefits created will flow to end customers rather than the bottom line
- The real value of e-commerce will derive from restructuring distribution and supply chains, and embracing deep collaboration with trading partners
- To sustain lasting advantage, businesses need to influence standards, use their market power shrewdly and lock up critical alliances

To survive beyond the shake-out, e-marketplaces will need to reposition themselves in a very different deconstructed landscape
- Specialist service providers, large scale exchanges, marketmakers and participant aggregators will endure
- The competitive playing field will be much more global in these roles, challenging Australasian players
- Far-sighted incumbents will exploit the evolution to build new growth businesses

Businesses seeking to capture lasting value from B2B e-commerce should follow a number of guidelines
- Sellers should start the transition to B2B e-commerce now, and should begin to tilt the playing field through proprietary solutions and differentiation
- Buyers should begin with indirect goods and services and work towards collaborating with strategic suppliers
- E-marketplaces should plan for revenue reality and start identifying enduring roles as e-marketplaces deconstruct
The arrival of B2B e-commerce has been heralded around the world as a revolution in the making. Australia and New Zealand are no different – publications are full of breathless tales about the players and the prospects.

The starting point for developing B2B e-commerce strategies is an understanding of the current landscape, which has been shaped by a land grab for e-marketplace real estate. Current transaction activity is minimal, but this will change very quickly, with volumes set to increase tenfold in just five years.

**B2B volumes poised for take off**

The extraordinary accessibility afforded by Internet e-commerce will attract a significant amount of B2B trade over the next five years. BCG estimates that the total volume of B2B e-commerce in Australia and New Zealand will increase from A$17 billion in 2000 to A$235 billion in 2005—an increase from 2 per cent of total trading between businesses to 22 per cent (Exhibit 1). The volume of Internet-enabled e-commerce will increase by 265 per cent annually (in part, because the growth is off a very small base), while Electronic Data Interchange (EDI) will increase by a modest 6 per cent annually, due to its continued use by companies that have already invested in these systems.

Australia will account for most of this volume ($214 billion in 2005), and will also outstrip New Zealand in terms of the percentage of B2B trade conducted online. In both countries the value of B2B e-commerce will be ten times that of B2C e-commerce. In fact, B2B e-commerce is expected to have a significant impact on the Australian economy as a whole. According to the Monash Centre of Policy Studies, cost reductions in the value chain and the returns from resulting capital investments will create incremental GDP growth of 1.9 per cent over the next ten years.

**Early adopters**

A number of factors will influence the rate at which specific industries and sub-sectors move online. First, there is the presence of economic incentives such as transaction cost savings, price benefits and cost-in-use savings due to more appropriate product selection. Second, there is the willingness of the industry to...
DEFINING B2B E-COMMERCE TRANSACTIONS

We define an electronic transaction as one where the order is placed electronically. This means that EDI transactions are included within our definition of e-commerce. By 2005, we expect that 22 per cent of all Australasian business orders will be placed electronically, in one form or another. The remainder will be placed in traditional ways: in person, by phone, fax or mail.

It is important to recognise that the impact of e-commerce depends on much more than the actual transaction. Suppliers need to be identified, buyers need to be courted and negotiations are often required before the order is finalised. In many cases, these elements will also occur online.

Decisions regarding many off-line transactions will also be influenced by information on the Internet, such as feature and price comparisons. Companies should not underestimate the importance of the Internet, even in industries where actual transactions will be slow to migrate online.

While e-commerce is already taking hold in most Australian industries - as opposed to New Zealand, where most initiatives are focused on office supplies and other indirect goods - analysis of the aforementioned factors suggests that financial services and logistics companies will be among the earliest converts in both countries. However, the manufacturing sector will emerge in time as the sector with the largest online trading volume (Exhibit 2).

Irrespective of the industry, large companies are expected to pioneer e-commerce. In Australia, nearly all companies with annual sales greater than A$100 million will use e-commerce for B2B transactions by 2002 (Exhibit 3). Many have already dedicated significant resources to B2B e-commerce activities.

Large companies will also be important catalysts for the broader adoption of e-commerce. Many have given their suppliers target dates to become e-enabled. For instance, some overseas corporations plan to have 70 per cent of their procurement volume transacted via e-commerce. Such plans will increase the pressure on small and medium-sized trading partners to quickly make their processes e-business capable. In the past year, most leading corporates in

EXHIBIT 2
E-COMMERCE ADOPTED BY ALL INDUSTRIES

<table>
<thead>
<tr>
<th>Share Of Overall B2B Online Purchases</th>
<th>Online Share of B2B Transactions Within Each Industry (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation</td>
<td>20.3</td>
</tr>
<tr>
<td>Financial Services</td>
<td>17.8</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>14.5</td>
</tr>
<tr>
<td>Shipping</td>
<td>9.0</td>
</tr>
<tr>
<td>Construction</td>
<td>7.6</td>
</tr>
<tr>
<td>Primary Metals</td>
<td>6.2</td>
</tr>
<tr>
<td>Food Manufacturing</td>
<td>4.9</td>
</tr>
<tr>
<td>Services</td>
<td>3.1</td>
</tr>
<tr>
<td>Telecommunications</td>
<td>2.9</td>
</tr>
<tr>
<td>Utilities</td>
<td>1.4</td>
</tr>
<tr>
<td>Agriculture, Forestry &amp; Fishing</td>
<td>0.8</td>
</tr>
<tr>
<td>Government</td>
<td>0.4</td>
</tr>
<tr>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

Source: BCG analysis

EXHIBIT 3
LARGE COMPANIES ARE THE PIONEERS IN E-COMMERCE

<table>
<thead>
<tr>
<th>Proportion Of Australian Companies Using B2B E-Commerce (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small (&lt;$10M)</td>
</tr>
<tr>
<td>Medium ($&gt;10M, &lt;$100M)</td>
</tr>
<tr>
<td>Large (&gt;=$100M)</td>
</tr>
<tr>
<td>100</td>
</tr>
<tr>
<td>80</td>
</tr>
<tr>
<td>60</td>
</tr>
<tr>
<td>40</td>
</tr>
<tr>
<td>20</td>
</tr>
</tbody>
</table>

Note: value thresholds denote annual sales

Source: BCG analysis
Australasia have announced initiatives to move their business online.

**Australasia behind the US**
Current penetration of B2B e-commerce in Australia and New Zealand lags the US. Indeed, Australia will not surpass the 2000 US penetration rate until 2004 (Exhibit 4). New Zealand is even further behind.

There are a number of reasons for this gap. First, the US has a much more substantial EDI infrastructure. EDI represents some 7 per cent of trade in the US while in Australia it is less than 2 per cent. Second, Australasian companies have a lower uptake of important enabling technologies, particularly enterprise resource planning, supply chain management and customer relationship management. Third, the scale of the US economy improves the prospects of earning a payback on e-commerce investments. Last, the US has been a hotbed of innovation, not only in the technology sector, but also in the corporate sector, with companies like GE and Ford actively driving the adoption of e-commerce within their organisations.

**An explosion of e-marketplaces**
While companies can conduct e-commerce directly with each other, many e-marketplaces have been established to link broader groups of buyers and suppliers (see Exhibit A in the Appendix for a fuller definition of e-marketplaces). This has happened at an astonishing pace. Some 232 e-marketplaces have been created in Australia and New Zealand, and a further 51 announced. The vast majority of these did not exist at the beginning of this year. In this respect, Australasia is proportionately more developed than the US, which is home to about three times as many e-marketplaces but has an economy some twenty times the size of Australasia’s.

Most Australasian e-marketplaces (220) are vertical, meaning they target specific industry sectors (Exhibit 5). The remaining 63 are horizontal, aiming to meet the needs of companies across many industries. In terms of functionality, the e-marketplaces are a mixed group, varying from little more than industry directories to strongly backed ventures using state-of-the-art technology. Some may prove no more than ‘vapourware’ initiatives designed to buy time by deterring would-be competitors.
TRUST AND PAYMENTS IN B2B E-COMMERCE

A number of enabling factors will be vital to the growth of B2B e-commerce. These include the availability of attractively priced, high quality telecommunications infrastructure, a rigorous legal framework, appropriate trade practices regulation and a skilled workforce. Two of the most important enablers are often underplayed - trust and payments.

The issue of trust in online commerce involves:

- **Confidentiality.** Participants must be sure confidential information is only accessed by authorised personnel.

- **Authentication.** Participants must be able to confirm the identity of counter-parties and know that messages have been received. They must also be confident that there has been no corruption of the information sent.

- **Restricted Disclosure.** Participants must be assured that confidential information shared with trading partners will not be misused.

Achieving these conditions will require adoption of technical solutions such as public key infrastructure (PKI), in combination with schemes regulated by trusted third parties, such as banks and government authorities. These organisations need to seize the opportunity and develop the appropriate infrastructure.

In addition, B2B e-commerce creates new needs in the areas of payments and financial services. Suppliers need to manage credit risk with unknown buyers, and buyers need to manage the risk that suppliers may not deliver against their obligations following payment. Existing financial services offerings are largely inadequate to fulfill these needs. For example, some online auctions create a need for payment or credit guarantees to be provided at the time a bid is made.

Financial institutions have a tremendous opportunity to develop and sell value-adding services to meet these needs. But the opportunity cuts both ways - a number of aggressive new entrants are aiming to capture this market and erode the trust and payments role traditionally played by financial institutions.

The industry focus of Australasian e-marketplaces reflects the Australian and New Zealand economies. For example, agriculture (38 e-marketplaces), mining/metals (19), and food (16) are well represented. While many of these address specific sub-sectors of each industry (e.g., wool within agriculture), there is no doubt that the e-marketplace field within primary industries is crowded.

Few of these e-marketplaces have an expansive geographic scope. Of the 283 e-marketplaces, 244 are focused primarily on Australia and 39 on New Zealand; only 31 operate beyond either country. Even within Australasia, only a handful operate across the Tasman.

Pure-play e-marketplaces, set up by independent companies, make up 63 per cent of the total. The remainder comprises incumbent e-marketplaces (set up or partially owned by industry incumbents). The share of incumbent e-marketplaces has been growing.

And, given that 36 of the 51 announced e-marketplaces are incumbent-led (Exhibit 6), this trend will continue in the foreseeable future. Incumbent-led e-marketplaces tend to focus on transactions rather than ‘matchmaking’ buyers and suppliers.

In summary, e-marketplaces have burst onto the scene in a remarkably short period. Nearly all are only just getting started, and transaction volumes remain tiny compared to the overall volume of electronic B2B trade. But the stampede to set up e-marketplaces raises important issues for companies seeking to craft a response to B2B e-commerce.

EXHIBIT 6

E-MARKETPLACE TYPES

<table>
<thead>
<tr>
<th>Australasian E-Marketplaces, November 2000</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pure Play</strong></td>
</tr>
<tr>
<td>Horizontal</td>
</tr>
<tr>
<td>30</td>
</tr>
</tbody>
</table>

Source: BCG analysis
Companies have no choice but to evaluate and understand the strategic significance of B2B e-commerce, particularly e-marketplaces. Most incumbents are being approached regularly to participate in these ventures. They need quick answers to questions that have potentially far-reaching consequences. Formulating the right answers begins with an understanding of how B2B e-commerce creates value.

**Purchasing and selling compromises**

In the traditional purchasing process, both buyers and sellers are forced to make compromises. On the purchasing side, the process involves a number of steps, from specifying, selecting and ordering to receiving, paying, and then using the product or service purchased (Exhibit 7). This process is often costly and sub-optimal. For example, in the purchase of an indirect good, like stationery, a buyer without a preferred supplier typically undertakes a time-consuming process of looking through catalogues and comparing prices. A simple fax or telephone order is prone to data entry errors and complicates automatic reconciliation with delivery invoices. Payment by cheque requires another manual data entry step in the accounting system. Worse still, the purchase of similar products from multiple suppliers - the result of an uncoordinated purchase process - may result in loss of volume discounts.

Suppliers face similar problems. A stationery supplier needs to provide buyers with costly, up-to-date catalogues. The cost of the catalogues limits the number of customers that can be targeted. When an order arrives by fax or phone, the data has to be manually entered into the ordering system. A paper invoice is then shipped out, together with the product. Cheque payments require manual entry into the finance system.

**Breaking the compromises**

B2B e-commerce breaks many of the compromises inherent in traditional trading relationships.

The value it creates can be thought of in two very different categories: value shift activities and value creation activities (Exhibit 8). The former shifts value from sellers to buyers, giving them a new tool to help attack information asymmetries favouring suppliers. Because so much attention has centred on value shift activities - such as reverse auctions and group buying - many suppliers are fearful of the impact of e-commerce.

The second category, value creation activities, is where the true prize rests for most participants. Here, both buyers and suppliers can create value for each other in several ways - from the obvious, such as reduced transaction costs, to the less apparent, such as reduced costs in using products and lowering inventories. Overall, value is created in two ways:

- **Broadening value.** Buyers' and suppliers' costs of reaching each other are reduced. For example, suppliers print fewer catalogues, answer fewer telephone calls and make fewer sales calls, while buyers spend less time approving suppliers and advertising their needs. This value is greatest in fragmented markets, where the activities needed to match buyers and suppliers are very inefficient. Products where sales and marketing expenses represent a high proportion of the cost structure are likely to benefit most from broadening buyer-supplier visibility.
EXHIBIT 7
COMPROMISES IN THE VALUE CHAIN

Buyer Compromises

- Analysing products and services is time consuming and costly
- Lack of input from suppliers during product design or specification leads to redesign and longer cycle time
- Selection and approval is time consuming
- Maverick buying undermines the ability to realise bulk discounts
- Cumbersome manual-ordering process consumes time and results in errors
- Manual reconciliation consumes time and results in errors
- Manual recording of inventory consumes time and results in errors
- Limited insight into suppliers’ inventory results in poor inventory management
- Manual reconciliation and payment consume time and result in errors
- Limited or inaccessible information on installation, use, and maintenance results in high cost in use

Seller Compromises

- Lack of rich interactions with buyers makes it difficult to customise offerings
- Limited or no product design collaboration with buyers leads to redesign and longer cycle time
- Producing quotes is time consuming and expensive
- Decision and approval process is long and fragmented
- Lack of inventory and production visibility to check availability results in lost sales
- Traditional orders by mail and fax consume time and result in errors
- Availability is often unknown due to inadequate links to upstream suppliers and results in lost sales
- Links to logistics providers are inefficient and are not automated, and result in suboptimal logistics planning
- Lack of link to accounting system results in errors and longer receivable cycle time
- Absence of data on purchasing behaviour and performance leads to poor and costly customer service and support

EXHIBIT 8
SOURCES OF VALUE CREATION IN B2B E-COMMERCE

<table>
<thead>
<tr>
<th>Value Shift Activities</th>
<th>Sources of Value</th>
<th>Driver</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activities that take value from one party and transfer it to another (a ‘zero-sum game’)</td>
<td>Aggregation</td>
<td>Achieved discounts by consolidating volume</td>
</tr>
<tr>
<td></td>
<td>Process automation</td>
<td>Decreased maverick buying</td>
</tr>
<tr>
<td></td>
<td>Transparency/auctions</td>
<td>Increased competition among suppliers</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Value Creation Activities</th>
<th>Sources of Value</th>
<th>Driver</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activities that create new value through improved efficiencies or productivity (a ‘win-win’ scenario)</td>
<td>Lower marketing and sales cost</td>
<td>Lower cost to reach and serve customers</td>
</tr>
<tr>
<td></td>
<td>Lower transaction cost</td>
<td>Fewer ordering errors</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Streamline approval process</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lower supplier-evaluation costs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Streamlined accounts-payable-and-receivable process</td>
</tr>
<tr>
<td></td>
<td>Lower cost in use</td>
<td>Access to superior products</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Customisation of inputs and after-sale service raise quality and yield of output</td>
</tr>
<tr>
<td></td>
<td>Lower inventory costs</td>
<td>More efficient supply chain reduces need for inventory</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Less obsolescence, less rework</td>
</tr>
<tr>
<td></td>
<td>Lower cycle time</td>
<td>Collaboration design and project management improves products, reduces redesign, and speeds time to market</td>
</tr>
<tr>
<td></td>
<td>Improved asset utilisation</td>
<td>Increased scale through reorganisation of the value chain</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Higher labour productivity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Better capacity planning and utilisation</td>
</tr>
</tbody>
</table>

Source: BCG analysis; interviews; literature review
THE RICHNESS AND REACH TRADE-OFF

The value of e-commerce can be thought of in terms of its impact on richness and reach. ‘Richness’ means the quality of information, as defined by the user - for example, accuracy, bandwidth and interactivity. ‘Reach’ means the number of people who participate in the sharing of that information. In the past there has been an inherent trade-off; it has only been possible to share rich information with a small number of people, or simple information with a larger number of people.

The Internet breaks the trade-off by making it much easier to share rich, interactive information with a broad audience. In this way, the Internet allows companies to broaden their supplier or buyer base (better reach) and make existing relationships more effective (greater richness).

**Deepening value.** Buyers and suppliers in existing trading relationships improve their interactions in terms of time, cost and quality. For example, buyers pass on information to suppliers regarding end customer demand, allowing suppliers to better schedule their manufacturing processes. Or buyers electronically communicate product designs to suppliers, reducing time-to-market for new products. At the same time, the costs of processing orders and payments can be dramatically reduced. Transactions where information is important to optimising usage are most likely to benefit from deepening the buyer-supplier relationship.

It is in these areas that e-marketplaces play important roles. First, they provide a common location where buyers and suppliers can find and learn about each other, broadening relationships. Second, they create a base of common standards and a technology infrastructure on which transactions can be executed, deepening relationships.

The role of an e-marketplace in setting standards is particularly important. It is the lack of standards (product descriptions, performance standards and measures, transaction process formats, production standards, data characterisation and interchange standards, and communication protocols) that creates transaction costs in most industries. By providing standards, e-marketplaces eliminate the significant costs associated with sellers linking to multiple buyers, and vice versa.

**EDI VERSUS INTERNET COMMERCE**

EDI has been used to trade electronically for well over a decade. Its most active users include retailers, the auto manufacturing industry and logistics companies. EDI enables organisations to send documents directly to suppliers using standardised data fields. It is used primarily in procurement, production, logistics and automated money transfers. Increasingly, technical data such as CAD designs are also being transmitted via EDI. EDI allows accelerated and errorless ordering of direct goods, as well as support of ‘just in time’ production.

However, EDI has drawbacks. It is relatively expensive to implement and inflexible to changing needs. As a result, its use has been restricted to long-term customer-supplier relationships that support large business volumes. Today, only 10 per cent of Australia’s largest companies, and less than 1 per cent of all businesses, use some form of EDI. And in those companies using EDI, only 20 per cent of their transactions are conducted through EDI itself.

The Internet is allowing companies to resolve many of EDI’s shortcomings. Companies of all sizes are able to gain simple and quick access to each other using well established communication protocols and inexpensive software. The transition of e-commerce from a narrow set of high volume users to business relationships of all sizes is a major driver of B2B e-commerce adoption.
Sizing the benefits

Estimates of the magnitude of B2B e-commerce benefits abound, but often overlook an important fact - the magnitude of the benefits and their make-up is highly specific to the industry and the sorts of purchases being made. Companies need to do their homework to understand the size and sources of benefits in their businesses.

An important distinction can be drawn between direct purchases (materials used in the final product) and indirect purchases (materials consumed in the process of making the product). Direct purchases tend to be for large values, so the purchase process costs are relatively small in relation to the total costs. The main benefit of B2B e-commerce for buyers therefore tends to be in reducing the cost of the product itself. However, benefits can also come from more timely and reliable delivery, or a more suitable product choice that reduces costs in the buyer’s manufacturing process. Sellers may also derive benefits beyond a simple reduction in processing cost through, for example, better scheduling of their own production processes.

In general, the potential for direct purchase benefits is greatest where there are many prospective suppliers; suppliers and products are hard to accredit; or there are high levels of wastage due to perishability or obsolescence. In Australasian, a number of e-marketplaces are being established in industries where these benefits are sizeable. Examples include: Lignus, a timber trading e-marketplace; eSwitch, an exchange for trading telecoms bandwidth; Australiawide Loading, which clears surplus trucking capacity; OZePrint, which connects publishing professionals with printers; and Woolnet, an e-marketplace for wool buyers in New Zealand.

Compared to direct purchases, indirect purchase benefits are much more focused on transaction costs, which are generally large in proportion to the purchase value. As a result, much of the benefit for buyers and suppliers comes from streamlining and re-engineering purchase processes. A reduction in actual product cost is also possible. In many cases, the bulk of this reduction comes from minimising so-called maverick buying (purchases that do not conform to negotiated supply agreements). Exhibit 9 shows best-in-class cost reductions achieved by purchasers of both direct and indirect goods, based on BCG’s experience.

EXHIBIT 9
BEST-IN-CLASS SAVINGS ACHIEVED BY PURCHASERS

<table>
<thead>
<tr>
<th></th>
<th>Direct Goods</th>
<th>Indirect Goods</th>
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<tbody>
<tr>
<td>Original Cost</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Transaction Cost Savings (55%)</td>
<td>5%</td>
<td>82%</td>
</tr>
<tr>
<td>Product Cost Savings (20%)</td>
<td>9%</td>
<td>7.8%</td>
</tr>
<tr>
<td>New Cost</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Original Cost</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Transaction Cost Savings (60%)</td>
<td>18%</td>
<td>82%</td>
</tr>
<tr>
<td>Product Cost Savings (9%)</td>
<td>9%</td>
<td>7.4%</td>
</tr>
<tr>
<td>New Cost</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: BCG Consulting Experience

The starting point for any company formulating its response to e-commerce is to thoroughly understand its purchasing and sales processes. The costs of each stage of the purchasing and selling process need to be sized for different types of products and services, and the compromises at each stage need to be gauged. This internal understanding must be supplemented with a segmentation of suppliers and buyers. Which types of buyers and suppliers are most likely to gain or suffer as a result of better negotiation and price transparency?

Armed with this understanding, companies can determine where B2B e-commerce will have greatest impact. This sets the stage for the next step: understanding how to capture sustainable value.
Few who consider the ramifications of e-commerce could deny that almost every industry will be affected, but what does this mean for the businesses, new and old, caught up in the revolution? Who will be able to capture sustainable value?

While the proliferation of e-marketplaces suggests they will be the epicentre of value creation, the truth is that very few of these ventures will survive. Most will be transformed beyond recognition; others will fade away entirely. In many cases, their only lasting legacy will be the standards they help to establish. Despite the fate of many e-marketplaces, however, B2B e-commerce will allow some companies to capture sustainable value by building new sources of competitive advantage and developing new businesses. To realise the opportunities, companies must first understand the shape of the future landscape.

**Challenges for e-marketplaces**

There has been so much hype surrounding e-marketplaces that it would be easy to forget this is only one way B2B e-commerce can be conducted. The fanfare has tended to focus on the potential of e-marketplaces to generate significant network effects—largely through broadening buyer-supplier relationships—whereby each new participant adds value to all other participants, generating increasing returns to scale. The consumer auction site eBay, which has been profitable since it started operations, has shown the power of this business model in the B2C space.

Because e-marketplaces that have secured critical mass enjoy a significant advantage over less established competitors, their promoters believe there are enormous benefits in being a first mover. This notion has spurred the land grab. However, this reasoning masks some harsh realities about e-marketplaces.

First, critical mass can be very difficult to achieve cost effectively, particularly in more fragmented markets. The challenge of customer acquisition is compounded by the oversupply of e-marketplace offerings in many categories. For this reason, a number of early pioneers in the US are struggling.

Second, powerful incumbent businesses have recognised their importance to e-marketplaces. They often hold the key to critical mass through their purchasing activity, or through the inclusion of their products in an e-marketplace’s offering. Nowhere is this more true than in Australasia’s highly concentrated business environment. In many sectors, a handful of incumbents account for a major share of the trading volume. Where incumbents do participate in independent marketplaces, they expect nothing less than razor-thin transaction pricing or a slice of the equity.

Third, only some of the functionality that e-marketplaces offer truly captures the value of the network effect. In many situations, e-marketplaces have a limited proprietary hold over the most valuable information they provide to participants. This prevents them from charging significant transaction fees. E-mail is a good example. Although powerful network benefits have been created for e-mail users, no central hub has been able to capture the value, as users can simply bypass any such arrangement.
The result is that transaction fees are unlikely to be major sources of revenue for many e-marketplaces. Recent experience in leading markets has already borne this out. With e-marketplaces struggling to reach critical mass, transaction fees are plummeting. Fees that used to range from 2 per cent to 8 per cent of transactions have fallen to between 0.5 per cent and 2 per cent. This mirrors trends in the B2C arena, where, for example, online share brokerage rates have fallen precipitously. Some B2C players have even begun providing free transactions to gain access to other customer revenues.

This margin pressure will have serious consequences for many e-marketplaces. As transaction fees drop, the need for increased transaction volumes will grow. With multiple undifferentiated e-marketplaces competing for ever-larger volumes of B2B trade, a shake-out is inevitable. In some industries, the hard truth is that the amount of B2B trade is not enough to sustain a single e-marketplace, let alone several. In these sectors, once standards for trading are established, companies will transact directly with each other without the need for any intermediation. The sector’s transient e-marketplaces will be remembered, if at all, for the their role in establishing widespread standards.

Challenges for incumbents
The situation confronting e-marketplaces should not dissuade companies from pursuing B2B e-commerce, as buyers and sellers both stand to benefit from reduced costs.

In some industries, in particular, moving quickly to establish a superior e-enabled position can create significant value. Dell, for example, has used the Internet as the basis of a build-to-order process. This has allowed it to reduce inventory to less than five days and significantly cut obsolescence costs. However, the PC industry is driven to innovation by the short life cycle of its products. The imperative to do things faster, more effectively and at lower cost ensures that e-commerce will deliver significant bottom line benefits quickly. Can the same short-term results be expected in other industries?

The answer appears to be an emphatic yes. A large Australian mining company, for example, recently established an Internet-based auction process for the procurement of direct inputs. On the first auction it achieved a price nearly 10 per cent below past levels, a saving that amounted to millions of dollars. For suppliers, too, there can be real benefits – for example, in selling off excess inventory or accessing and serving customers more efficiently.

Companies, however, would be unwise to expect these benefits to flow to the bottom line beyond the short term. If, as expected, most participants in a particular industry access the benefits of cost reductions and process improvements created by e-commerce, then competition will probably drive down prices throughout the supply chain. The cost savings generated by e-commerce will be competed away, and customers will be the ultimate beneficiaries.

In the immediate future, the defensive angle will be critical. Companies that fail to adopt these solutions – or do so very slowly – will find themselves disadvantaged, particularly in industries where an early mover has implemented a solution. Therefore, most players will initially pursue an e-commerce
initiative to keep from falling behind rather than as a way of gaining competitive advantage.

But the urgency is not confined to defence. By moving early, companies can potentially shape the development of the predominant e-commerce solution in their industry. They can design the standards and processes in a manner that accentuates their competitive advantage. Incumbents that wait may have little choice but to conform to a competitor’s solution. Early movers are also positioned to lock in key partnerships – another potential source of competitive advantage.

Capturing sustainable value
Beyond moving early to set favourable standards or secure key partnerships, there are further opportunities to capture sustainable value in B2B e-commerce. The first comes from businesses that emerge from the deconstruction of e-marketplaces, and second from proprietary means of collaboration and supply chain restructuring.

Deconstruction of the e-marketplace
Driven by the declining potential of transaction revenues and the struggle for liquidity, e-marketplaces will increasingly shift attention to the development of value added services. In the US, there has been much activity, from both within and without e-marketplaces. Financial services and logistics providers have formed partnerships with e-marketplaces, while some e-marketplaces are developing their own integration and consulting services to support their participants.

In some cases, e-marketplaces are undergoing even greater shifts. For example, Ventro, the operator of the Chemdex marketplace, has announced it will sell its e-marketplace business and focus on software and services; SciQuest, another early leader, has indicated it will focus on building custom e-commerce solutions and selling software; and PaperExchange has said it will focus on building e-business applications for the paper industry.

We believe marketplaces will deconstruct into a number of distinct businesses. They will include:

- **Specialist service providers.** These will provide commerce services such as payments and related financial services, and logistics. They will also include more sophisticated transaction services, like decision-making algorithms and price discovery mechanisms. Technology companies will create businesses around software for sell-bots, which configure products for customers and offer pricing, and buy-bots, which automate the purchasing decision. Users will customise these to develop proprietary advantages in their sales and purchasing functions. In the short term, software integration services will be a booming area as companies sew internal systems to external e-commerce applications.

- **Large scale exchanges.** As transaction margins diminish and standards allow the specification of an increasing number of products, the core functions of routing and matching transactions will fall to specialist exchange operators. A few massive players are likely to dominate in these scale intensive businesses.

- **Marketmakers.** These businesses will take positions as principals in the markets in which they operate. Their objective will be to enhance liquidity for the marketplace and reduce trading risks for participants. Successful ones will need to be effective in capturing and using information from the marketplace environment, such as indices and historical data. These businesses already exist in most financial markets and are the major source of revenue for players such as investment banks.

- **Participant aggregators.** These players will aggregate groups of smaller companies, in some cases focusing on a specific industry segment or function within companies. To operate cost-effectively they will need to have low acquisition costs for the suppliers or buyers they deal with. They will be very focused on the needs of their target segments, often offering a one-stop solution. Sometimes the natural tiering of suppliers within an industry, for example in the auto industry, will make one tier well suited to playing this role. As a means to reduce technology costs, many participant aggregators will operate on an application service provider (ASP) model.

This evolution will see dramatic shifts in the current landscape. As deconstructed businesses develop, an interlinked environment will emerge, constituting the trading environment of the new millennium. A number of e-marketplaces will survive the shake-out – more than most predict – but not in their original form. They will transform into different businesses competing in very different ways, often on a global
stage, and the term e-marketplace will most likely become meaningless.

Companies that can leverage their existing assets and capabilities in this new environment will create lasting value. E-marketplaces can become niche technology providers; trade publishers can evolve into participant aggregators; banks can develop new online financial services; and telcos can become operators of major exchanges. The possibilities are numerous.

**Collaboration and supply chain restructuring**

While many public e-marketplaces will go through a tumultuous evolution, most large corporates will quietly go about the process of e-enabling their procurement and developing capabilities to sell over the Internet. Companies that command a large market share or whose purchases account for a major share of their suppliers' sales are in a very strong position to create private e-marketplaces that will enable them to develop unprecedented levels of collaboration. (See Exhibit A in the Appendix for a definition of private e-marketplaces.) Unlike generic, industry-wide value generation opportunities, which are bound to be competed away, the advantages generated by deep collaboration can be both significant and sustained.

Collaboration will redefine supply chains in many ways (Exhibit 10). For example, by sharing real-time inventory and demand data through the supply chain, companies can lower inventory levels, optimise production schedules and improve response times dramatically. Moreover, they can collaborate on product development and jointly identify ways to reduce the total cost in use of products. Just as the implementation of ERP systems has led to large optimisation and labour saving benefits within companies, B2B e-commerce will extend these benefits between companies.

Collaboration is also likely to allow companies to focus more on their core activities and outsource non-strategic activities. This is because it breaks down the

<table>
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<th><strong>EXHIBIT 10</strong></th>
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<tbody>
<tr>
<td><strong>Activity</strong></td>
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<tr>
<td>Collaboration Services</td>
</tr>
<tr>
<td>Inventory visibility</td>
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<tr>
<td></td>
</tr>
<tr>
<td>Collaborative forecasting and planning</td>
</tr>
<tr>
<td>Product design collaboration</td>
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<tr>
<td>Asset netting</td>
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<td>Online build-to-order capabilities</td>
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</table>
costs of sharing information, and in so doing allows companies to use third parties for parts of the value chain that were previously considered ‘un-out-sourcable’. Companies can subcontract manufacturing activities without paying penalties in terms of idea-to-launch cycle times, and can more effectively orchestrate a range of partners in producing their products and services. In this way, collaboration can be expected to accelerate the deconstruction of supply chains. But because it requires deep integration and commitment between the buyer and supplier, collaboration is less feasible for smaller players.

The overarching significance of collaboration is that it offers real opportunities to develop competitive advantages. It provides companies with a platform to develop proprietary optimisation approaches using shared information, which in turn allows them to achieve greater efficiencies and build switching costs. And, because deep collaboration often takes place in private e-marketplaces, competitors are unable to access or even familiarise themselves with the technology and business processes being used. Companies that take advantage of this opportunity stand to create sources of advantage that will be hard to emulate.
Leading companies throughout Australia and New Zealand have been moving hurriedly to establish an e-commerce response. As their plans have unfolded, certain patterns have emerged. All are trying to use e-commerce as a new tool to beat down suppliers; many are setting up e-marketplaces, but usually as a means to share the investment; and far fewer are developing a meaningful e-sales presence.

Given these early directions, there is a risk that companies are not going to capture the full value of B2B e-commerce. Instead, they will find themselves tied up in wasteful e-marketplace ventures, having given away the keys to future competitive advantage. Consumers will profit handsomely, while for companies it will ultimately be a zero-sum game.

This does not have to be a missed opportunity. While uncertainties remain, much can be done now to put in place a foundation for future competitive advantage. The following guidelines - intended to help companies find ways to profit in the long term from B2B e-commerce - are divided into two main components. The first looks at how incumbents can use B2B e-commerce in their sales and purchasing strategies. The second looks at ways of navigating e-marketplaces through the impending shake-out.

Using B2B e-commerce to transform incumbent businesses

Incumbents have much to gain as participants in the e-commerce revolution. While conventional wisdom has it that B2B e-commerce is a massive threat to the sell-side and a boon on the buy-side, much of this is focused on the immediate benefits that can be delivered. In reality, the potential for longer-term competitive advantage is distributed on both sides.

Sales and marketing strategies

Start now and learn

While a comprehensive solution may require a large investment, companies, regardless of their size, need to start on their e-commerce journey now. An initial solution can cost remarkably little, and the value of such a solution, from learning alone, will usually outweigh the risk of falling behind competitors. Moving online will also highlight the broader process changes needed to effectively serve customers in this environment. Even companies that eventually intend to sell primarily through e-marketplaces need to begin e-enabling the necessary information (for example, product characteristics, inventory levels and order status).

Tilt the playing field through proprietary solutions

Companies with very strong competitive positions can exploit e-sales to build further competitive advantage. They might start by strengthening their ties with customers by migrating them onto a proprietary e-sales solution. They can also take the first steps down the path of deeper collaboration. GE’s Aircraft Engines, for example, has established an online presence to serve its customers’ engineers. It is now a de facto portal for the industry. While companies need to be careful not to overestimate their position, the high degree of concentration in many of Australasia’s industries increases the potential for a single player to establish the pre-eminent e-commerce portal. A clever partnering strategy – for example, allying with complementary suppliers – may further enhance competitive positioning.
Particular emphasis should be placed on exploring how a proprietary solution can provide information that helps the customer make money. In our experience, companies often need to conduct a formal process of customer discovery, working jointly with customers to define where value can be unlocked.

Be shrewd about participating in e-marketplaces

An e-marketplace can offer several advantages over e-sales. First, it can provide lower cost access to new customers. Second, if it has sufficient scale it can provide lower cost transactions, as well as value added functionality that some suppliers could not afford on a stand-alone basis. Third, contrary to popular opinion, it can actually enhance the ability of the seller to differentiate itself, if key comparative measures built into the e-marketplace highlight the seller’s competitive advantage (we discuss this further, below).

These advantages must be weighed against the risk that the transparency created by e-marketplaces will expose suppliers to greater pressure. This risk will be greatest in buyer-centric e-marketplaces that aggregate buyers’ orders. Sellers in the US are already experiencing downward pressure on prices. In a recent BCG survey, 24 percent said they have felt price pressure since customers began moving online, and 79 percent said they expected to feel price pressure by 2004.

Regardless of the risk, companies need to recognise that customers will inevitably use e-marketplaces. Forecasters predict e-marketplaces will grow to handle between 30 per cent and 50 per cent of all online transactions in five years. Companies that do not participate risk losing business. The real choice is therefore between leading the change or adopting a more passive stance.

In general, companies need to be strategic about where they choose to participate - they would be unwise to support all of the e-marketplace proposals.

ONLINE SALES: DEATH OF THE SALESMAN?

E-commerce can be used to conduct direct marketing campaigns online, automate basic transactions, and provide a low cost way of addressing queries. However, it will not replace direct, face-to-face relationships. And while it will eventually provide a platform for developing customised product and service solutions, by and large it does not yet do this. In short, e-commerce will not see the death of the salesman in the foreseeable future.

A good example is Cisco, the worldwide leader in networking equipment. Cisco’s Web site, Connection On-Line, now accounts for around 90 per cent of all orders. It allows customers to self-configure, order, request technical support, access and maintain contracts and provide feedback, leading to significant benefits. Cisco still relies on its sales force to develop and sell solutions to meet customer needs, and in doing so to cross-sell related products. But the sales force is much more focused on value added services, with the lion's share of orders and routine requests handled over the Internet.

The challenge, therefore, is to identify how to migrate the role of the sales force to supplement and enhance what is done online. In many cases, there are substantial gains to be made by e-enabling the sales force itself. But in this process there are many obstacles to be worked through, such as seamlessly integrating customer contact through multiple channels. In addition, as the procedural elements of the salesperson’s role are removed, a key challenge will be to enhance the selling skills of the sales force.

CORPORATE EXPRESS: AN EARLY E-SALES LEADER

Corporate Express, Australia’s largest distributor of office products, introduced its Internet ordering system, NetXpress, long before most companies had identified the potential of B2B e-commerce. It has grown to become the most transacted B2B site in Australia. In 1999 it accounted for 20 per cent of the company’s $412 million in sales. The company’s annualised sales via e-commerce exceeded $150 million by June 2000, an increase of more than 100 per cent over the previous year.

Ted Nark, the company’s managing director, believes the key to building a successful e-commerce site is to make sure it is not run solely by technical people - sales, marketing and customers must be closely involved. As a result, NetXpress has developed functions that are focused on saving customers time and money. Through its leading position, Corporate Express is better placed than competitors to profit from and shape the transition to e-commerce.

Online sales: death of the salesman?
Integrating with each one costs money and requires ongoing support. In addition, given that most e-marketplaces will fail, companies should seek to identify likely survivors. In all cases, companies should carefully understand the value they bring to the e-marketplace. Where this is especially high, the company should consider whether it should invest in or build an e-marketplace, and should recognise its ability to shape outcomes. In some cases a supplier’s involvement may dramatically enhance the credibility of an e-marketplace.

Shape how comparisons are made and invest in differentiation

Suppliers can minimise commoditisation in e-marketplaces by shaping the way they are seen in relation to competitors. For example, delivery times or durability are dimensions that could get lost in a pure price-comparison e-marketplace, but might be important components of competitive advantage. For this reason, a supplier should choose an e-marketplace according to how well it plays to the supplier’s advantage. For instance, a manufacturer that has a superior product but an inferior sales model and distribution channel should participate in e-marketplaces that offer access to a broader customer base and focus on the product itself.

While some large companies will be in a position to shape e-marketplaces to their advantage, the reality is that most suppliers will need to cope with much greater transparency. This will place increased importance on sources of differentiation in the online world.

**E-MARKETPLACES: BUILD, BUY OR INVEST?**

While in practice companies may be forced to participate in e-marketplaces, for many large corporates the question of how to participate will be critical. They have several options. On the one hand, they can build their own e-marketplace (individually or in partnership). On the other hand, they can simply participate in someone else’s e-marketplace. Or they can split the difference, opting to take an equity stake in an existing venture.

By building the e-marketplace a company can retain a potential equity upside while gaining the ability to influence the industry standards. Participating without equity provides a higher degree of flexibility and some insurance in case the e-marketplace fails. Sometimes a powerful supplier may receive equity without a cash investment just for its participation. Investing in an e-marketplace should not be considered lightly, given the challenges facing e-marketplaces.

In some instances, likely winners can be picked – for example, corProcure and CyberLYNX – because of their significant incumbent support, but in many industries the outcomes are still very uncertain.

Competitors who jointly build an e-marketplace need to agree where they will cooperate and where they will compete. Naturally, they will share a commitment to designing an e-marketplace that has a strong value proposition to customers. However, the same services that can strengthen the value proposition – such as value added and collaboration services – can potentially reduce the ability of suppliers to differentiate themselves.
In BCG’s US survey, 65 percent of sellers said they were already investing in differentiation in response to pressures from e-marketplaces. There are a number of ways to do this, like using e-sales or e-marketplaces as platforms for delivering unique value added and collaboration services, such as self-configuration tools. While tailoring products to suit an individual customer’s needs may be an effective way to differentiate the offering in the face of increased transparency, companies that provide such configuration tools will also need to invest in manufacturing systems that are flexible enough to cope with producing the number of options that can be selected. The more transparent environment created by B2B e-commerce underscores the importance of good competitive value and cost analysis. Suppliers must understand the value proposition and economics of their products or services before participating in electronic auctions, and they generally need to upgrade their costing systems and develop improved competitive monitoring approaches before using e-marketplaces.

Purchasing strategies
Start with indirects
For buyers, the benefits of e-procurement are indisputable, from the process improvements created by electronic communication of information to the use of transparency and aggregation to reduce prices. In most cases the key decision is not whether to buy online, but what and when to buy.

The first step towards buying online is to segment suppliers so that priorities can be established. This requires a clear map of purchases in terms of their strategic importance and value. This, in turn, needs to be supplemented with a costing and assessment of the procurement process for the different types of purchases. A fairly simple approach is to divide purchases into direct and indirect categories. Direct goods can be further segmented into categories defined by frequency of order, the degree of standardisation and how strategic the purchase is.

Similar to e-sales, the cost of implementing a comprehensive e-procurement solution can be significant. Purchasers therefore need to adopt a staged approach, starting with simple, low cost solutions, and upgrading to more sophisticated solutions over time. Indirect goods are most often the best starting point for online purchasing, as this can yield significant process benefits with minimal risk. Furthermore, off-the-shelf software packages are readily available and the methodologies for implementing such systems are well documented.

DELL: MAINTAINING DIFFERENTIATION
Dell has pioneered a very successful way of selling its PCs through e-marketplaces while minimising the risk of commoditisation. When a customer buys Dell products on Commerce One’s e-marketplace, for example, they are transferred to the Dell site to configure and order the PC, and then transferred back to the Commerce One site to complete the transaction. This allows Dell to retain a direct relationship with the customer, maintain the strength of the brand, and continue to differentiate itself through its build-to-order capabilities. It also greatly increases the difficulty of making comparisons with products and prices offered by the competition - Dell’s configuration site could create literally thousands of product combinations.

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CHANNELS TO MARKET: MANAGING CONFLICT
In some industries, selling online can lead to conflicts with existing distribution channels, as companies’ traditional distributors - whose value has often been to provide a low cost mechanism for accessing fragmented customers - can be bypassed. In particular, this is a major threat to those distributors whose role in the value chain has been largely informational. This conflict between new and old channels can be a significant roadblock to progress.

Managing channel conflict issues requires a careful examination of the impact of e-commerce on the roles played by distributors. Many physical roles will be largely unchanged, such as inventory and logistics management and value added services (for example, inspections and risk bearing through taking title to inventory). By contrast, many information roles will fundamentally change, and companies must develop strategies for managing this change. Tough decisions that could lead to short-term cannibalisation may be required to move to a competitive longer-term position, particularly if delaying this change will expose the business to low cost attackers.
While buying indirect goods online will not establish sustainable advantage, it does initiate the organisational learning process and gets early runs on the board. This is critical, as the degree of change required to successfully move purchasing online is often underestimated. Entrenched behaviours need to be modified, processes need to be redesigned and suppliers need to be carefully brought on-board. Change of this sort requires strong leadership from the top. It also means it is wise to start small. Roadblocks can be removed and the learning fine-tuned before bigger (and higher risk) steps are undertaken.

**Use e-marketplaces for indirect and non-strategic direct purchases**

An e-marketplace can offer an attractive alternative to an e-procurement initiative. First, it can provide a lower cost connection with a broader range of suppliers. Second, if it has sufficient scale it can provide lower cost transactions and value added functionality that some buyers could not afford on a stand-alone basis. Third, it can provide order aggregation functionality, which allows smaller businesses, in particular, to extract lower product costs (although the extent of aggregation will be much more limited than expected). Fourth, it may allow buyers to procure products and services better suited to their needs, depending on the key comparative measures built into the e-marketplace.

E-marketplaces are particularly suitable for purchasing products and services that are common within and across industries, such as indirect goods, as well as non-strategic direct goods. Purchasing through e-marketplaces is likely to provide greater scale benefits, and the risks are limited if the products and services are not strategic.

The key challenge for a buyer is to choose the right e-marketplaces, as there is a cost associated with connecting with and using each one. Purchasers that account for substantial volume should remember that their weight can be used to create or at the very least shape e-marketplaces. In the same way as suppliers, purchasers need to evaluate the merits of building either a private or consortium-based e-marketplace.

### Collaborate with strategic suppliers

For some businesses, collaboration in supply chain management and product development for strategic, direct purchases may be the most significant source of competitive advantage derived from B2B e-commerce. However, very few e-marketplaces currently offer collaboration services, and there are issues about the potential erosion of advantage if key competitors have access to the same services. So where a company has a competitive advantage in either procurement, supply chain management or joint product development and has significant market power, it should consider creating an e-procurement capability.

Walmart, for example, is pursuing a strategy of investing in a proprietary e-procurement system, in part because it derives significant competitive advantage from scale and process capabilities. Its advantage could be diminished if it joined an industry e-marketplace and allowed its supplier relationships, purchase scale and intellectual capital to be shared with competitors.

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**HORIZONTAL E-MARKETPLACES: INCUMBENTS FLEX THEIR MUSCLES**

On July 5, 2000, incumbents hit the headlines when 14 of Australia’s largest companies announced corProcure, an e-marketplace for the purchase of indirect goods. The founding shareholders - Amcor, AMP, ANZ, Australia Post, BHP, Coca-Cola Amatil, Coles Myer, Fosters, Goodman Fielder, Orica, Pacific Dunlop, Qantas, Telstra and Wesfarmers - represent a diverse group of peers from different industries.

A further group of incumbents entered in September with CyberLYNX, a rival e-marketplace. Amongst the founders are competitors of several of corProcure’s shareholders - Commonwealth Bank, Woolworths, Lion Nathan and New Zealand Telecom.

The initial focus of these horizontals appears to be on aggregation and transparency, aiming to drive immediate bottom line benefits. Competitors have not cooperated within the same e-marketplace, presumably hoping to gain a competitive edge and possibly profit through capturing value in the marketplace itself. But as the future landscape plays out, these players may be disappointed. The likelihood is that the savings, captured equally by competitors, will flow to end customers. And the prospects for e-marketplaces becoming valuable in their own right seem slim.
Where a company lacks this kind of competitive advantage, but has some market power, it may be best off participating in a public e-marketplace. This will allow it to develop best-in-class applications, and shape the standards of an e-marketplace in its favour. In addition, public e-marketplaces can be established in such a way that competitively sensitive information is not shared. For example, some e-marketplaces host private networks, which limit contact between competitors; many do not offer order aggregation, which ensures competitors cannot piggyback off scale advantages; and most are structured so that transfer of intellectual capital cannot occur.

Navigating e-marketplaces through the shake-out

For e-marketplaces, the future landscape is foreboding, as the squeeze on revenues will force a shake-out. But as e-marketplaces deconstruct, new opportunities will emerge. Existing e-marketplaces must be attuned to the changes, while incumbents must deal with the challenges of setting up consortium e-marketplaces.
Strategies for e-marketplace survival

Focus on well defined customer segments

E-marketplaces can define their market in a number of ways. They can target buyers in a single industry by serving overall needs or focusing on a specific segment. They can also target buyers in multiple industries by supplying common, indirect materials— for example, maintenance, repair and operations supplies— or specialising in a function that can be applied across multiple industries, such as financial services or logistics.

Two elements are critical in defining the target market: domain expertise and market size. The question with the former is: can the e-marketplace develop domain expertise across the whole industry, within a segment, or within a particular function? E-marketplaces specialising in a particular function must have the skills and reputations that are typically derived from off-line capabilities. The size of the target market is also critical to support the economics of an e-marketplace. This is discussed in more detail below.

For e-marketplaces focused on a single industry, building critical mass (often called liquidity, as in financial markets) usually requires a ‘one-stop shop’ offering. Buyers are faced with industry-specific compromises they want to resolve in the simplest, lowest cost way possible. As a result, they are attracted to e-marketplaces that meet their full range of product and service requirements, provide a large choice of suppliers and offer a full range of functionality.

Accordingly, effective e-marketplaces will need to be very focused on the needs of their target customer groups. For example, a builder would prefer dealing with one e-marketplace providing concrete, frames, bricks, and tiles, rather than dealing with separate e-marketplaces for each. At the same time, that builder would prefer to have a choice between all the main suppliers of a particular product and would want access to industry content, supplier directories, product selection, tendering, ordering, payment mechanisms, fulfilment, support and reporting.

Recognise where geographic scope matters

The Internet in general, and e-marketplaces in particular, will break down geographic barriers and place pressure on businesses that have survived through lack of market transparency. Although the Internet makes global reach possible, even the best cross-border marketplace is of no help if the products cost too much to ship, or are not sufficiently standardised across different markets. Goods that are difficult to transport will continue to be traded locally or regionally because of the logistics involved (Exhibit 11). Natural resource commodities or specialised chemicals, on the other hand, will most likely be traded globally because they are relatively standardised products and are easily transportable. The message is clear - Australasian e-marketplaces operating in regional or globally traded markets will need to rapidly expand their coverage, or risk falling behind more geographically diverse competitors.

EXHIBIT 11
LOGISTICS COSTS DETERMINE GEOGRAPHIC REACH OF MARKETPLACES

Identify enduring roles as e-marketplaces deconstruct

Whether or not e-marketplaces are global, they can operate more cost effectively by focussing beyond a single market. Technology platforms and value added services can be leveraged across markets, while specialist capabilities can be developed within markets. As transaction fees fall, players that achieve economies in their operating platform will have a much better chance of survival.

In fact, as e-marketplaces deconstruct into component businesses, operating scale and specialisation will be the key to creating lasting business models. As discussed earlier, many players will migrate from operating e-marketplaces to focussing on specialised technology platforms and specific services. ASP services such as design, project/production management and
optimisation software will become increasingly important as the focus shifts to collaboration. Specialist players will supplement core marketplace platforms such as those offered by Ariba and Commerce One. As these specialists seek to gain leadership in their niches, we can expect a wave of partnering and M&A activity. It is also conceivable that some players will position broad integration as a key selling point over these specialised best-of-breed players.

This future will present significant challenges for Australasia’s multitude of e-marketplaces, many of which are fledgling ventures with extremely limited resources. Quite possibly, they will be rolled back by global players in all but the most closed and locally unique markets, as these global players provide superior technology platforms, more advanced service offerings and deep industry content. But it is possible, too, that there are the seeds of future Australian global leaders amongst the crowded field – companies capable of developing leading technologies with global applicability, or perhaps offering highly differentiated services to e-commerce participants. Could there be a B2B encore to Looksmart’s success in consumer content directory services?

**ARTESIAN: MOVING TO A FULL SOLUTION**

In January 2000, Artesian was formed as a joint venture between Lion Nathan, Southcorp Wines and United Distillers & Vintners. It was positioned as a B2B portal for the hospitality industry and initially offered restaurants a limited range of the investors’ products with direct delivery, thus bypassing wholesalers.

After several months of operating it became clear that customers are looking for a ‘one-stop shop’ in both alcoholic beverages and other supplies. Without this, Artesian struggled to compete with the broader off-line offering of the wholesalers.

In the third quarter of 2000, Artesian’s strategy underwent a major review and has been modified to allow participation by all industry players, including wholesalers. Artesian’s success will depend on its ability to craft a fee structure that will not put customers and suppliers off the new one-stop offer (therefore building liquidity), while meeting its investors’ financial objectives.

**Plan for revenue reality**

E-marketplaces operate with large fixed costs and with two major cost categories: technology and customer acquisition (sales and marketing). This makes them sensitive to transaction fees, which currently represent the majority of revenues for all but the most broadened e-marketplaces. Unfortunately, many e-marketplaces do not appear to have planned for the reality of declining transaction fees.

If transaction fees decline to 0.5 per cent and an e-marketplace operates on a relatively slim $10 million budget (the annual running costs of leading edge e-

**LEVERAGING TECHNOLOGY ACROSS VERTICALS**

In September 2000, Vertical Markets (VM) launched vLifeScience, an e-marketplace targeting the life sciences industry. The site is the first of a series targeted at distinct vertical industries, including electrical engineering and local government. These industries share the common characteristic of fragmentation of both buyers and suppliers, which increases the value add of e-marketplaces.

VM has developed a leading ‘private label’ platform for e-marketplace operators, from both a functionality and technology perspective. It is using a combination of technologies developed in-house, bought from vendors and supplied by partners. Client e-marketplaces are offered three solutions: SME specific software; E-Services converting off-line into online businesses; and E-Businesses offering technical and commercial management of Web sites. The key is that several verticals will share the same technology platform, reducing the incremental costs of developing each e-marketplace.

The success of VM’s approach will depend on how effectively it can share its technology platform across several communities, and its cost of acquiring customers in these fragmented industries. The experience of US players such as Ventro is cautionary. It recently announced it is selling its Chemdex e-marketplace following disappointing revenues, and will focus on software and service provider roles. VM’s early focus on common technology applications may position it to develop an enduring specialist business in this area.
marketplaces range in the tens, if not hundreds, of millions of dollars) it will have to handle $2 billion worth of transactions annually to remain viable. Many of Australasia’s vertical markets in their entirety – let alone the proportion that might transact on one particular e-marketplace – are smaller than $2 billion.

Survivors will be those that find ways to defy this equation. They will have to:

- Partner to share technology investments
- Execute in a very focused and disciplined manner, prioritising investments carefully against revenue generation potential
- Focus heavily on the activities where they are most advantaged and rationalise the rest, adapting the business model as they go
- Get incumbents on board to bring forward the achievement of critical mass and reduce customer acquisition costs
- Build non-transaction revenues through commerce and collaboration services
- Secure funding commitments based around realistic financial forecasts.

**Consortium e-marketplace strategies**

**Agree common goals up front**

Alliances between competitors to establish e-marketplaces can make good sense, especially as they allow a group of companies to drive standards and share investments. But such partnerships often run into problems. To begin with, competitors are suspicious of each other’s agendas, and often the different positions of individual consortium members conspire to undermine the common intent. For example, less powerful members tend to want open platforms that create a more level playing field, while larger members want exactly the opposite. Similarly, companies favour standards that closely align with their existing processes and individual competitive advantages, which further drives them apart. Occasionally, fundamental differences of strategy block progress, as well.

It is vital that consortium alignment be addressed through the development of a clear business case for the venture. This must clarify where competitors will cooperate and where they will compete. Such issues as governance structures, technology choices, pricing and implementation priorities should also be determined in a logical, fact-driven manner. The importance of this agreement cannot be underestimated. In nearly all cases where consortia break down, the problems relate to a lack of a clearly agreed strategy.

**Choose a vehicle that fits the e-marketplace’s strategy**

Incumbent e-marketplaces can be structured in two fundamentally different ways: as cooperatives or as stand-alone commercial ventures. The choice is critical. A cooperative is set up to serve its members,
requiring mutual investment and often using seconded resources. Members typically capture their returns through their use of the platform. A commercial venture is fundamentally different. It is set up as an arm’s length company with equity investors, and its destiny is largely controlled by its management, not its individual owners.

A commercial venture is most suitable when an e-marketplace will face substantial competition and an uncertain future. Structured, in most cases, with an independent board, its management is free to make rapid decisions and compete flexibly, earning a major chunk of its revenues from third parties. Such ventures have the opportunity to go public, allowing equity incentives to be used to attract a talented team. But structuring the equity needs to be handled with care; this can be a major bone of contention between competitors. Specifically, issues such as whether new equity investors can join in the future and equity rewards for value brought to the e-marketplace need to be addressed.

Where an e-marketplace is designed almost exclusively to serve its founders, or its role is restricted due to constraints imposed by its founders, a cooperative is more suitable. In this case, a stand-alone vehicle serves no real purpose, with no growth path available to it. Indeed, to grow, an e-marketplace of this sort must earn revenue from its founders, leading to a zero-sum game. Cooperatives require strong facilitation to be effective, and attracting people to this ‘no win’ role can be difficult. Without clear frameworks for decision making, as well as active brokering by an independent party, cooperatives have a tendency to make very slow progress. Consortia that choose this route need to recognise these issues and be prepared to make use of external facilitators.

**Bring trade practices regulators in early**

Competition regulators in all countries are taking a close look at incumbent B2B e-marketplaces. Two areas are drawing special attention from regulators: e-marketplaces that exclude suppliers (particularly those suppliers that are competitors), and reductions in competition due to group purchasing (particularly in concentrated industries). There remains great uncertainty as to how these issues will be dealt with in different jurisdictions. But e-marketplaces that fail to involve trade practices regulators early in the process will almost certainly be delayed in the later stages of their launch. Consortia therefore need to be proactive in seeking early regulatory involvement so they can work through these issues before costly investments are made.

**MINING AND MINERALS: RIVAL CONSORTIUM PLAYS**

The mining and minerals industry, like many others, has seen incumbents move to set up e-marketplaces. In May 2000, 14 global mining companies, including BHP, Rio Tinto and Western Mining, announced a procurement e-marketplace, dubbed Project Charlotte, aimed at purchases worth some $320 billion annually.

Project Charlotte is rapidly moving to full operation, and has changed its name to Quadrem along the way. Backed by industry heavyweights, it is considered a serious player. With commercial transacting already being piloted, a full launch is planned in January 2001. Meanwhile, little has been heard of a rival consortium announced by 12 second-tier mining companies in July. However, one of its members, Normandy Mining, recently announced it has joined Quadrem.
B2B e-commerce is ushering in an era of vastly more effective communications between companies. For Australia and New Zealand’s largest companies, the prospects are both intimidating and exciting.

A remarkable new trading environment is swiftly unfolding as companies announce an array of e-commerce initiatives and e-marketplaces spring up from all sides. For pure plays, the future is uncertain. After the land grab, the focus is turning to the defensibility of the land that has been claimed. As e-marketplaces deconstruct, these players must identify niches in which they can both add value and be competitively viable. Many will fail, but e-commerce will march on nonetheless.

For incumbents striving to identify the right response, the environment of the last few months seems to have left them with little choice. Most have been urged to respond with a ‘just do it’ mentality, but prescriptions offered do not always address fundamental differences in industries’ characteristics and companies’ market positions. And with the e-commerce agendas of most major corporates looking remarkably similar, the risk is that all of the substantial investment in B2B will merely redistribute shareholder wealth to end consumers.

But companies can reap rewards as B2B e-commerce grows up. By simply executing effectively on e-enabling their operations, companies can expect to enjoy a brief window of competitive advantage. And through carefully planned strategies, they can secure lasting returns. They can use deep collaboration to change the rules of the game in their industry - restructuring supply chains to their advantage - and they can grow through well-conceived investments in the deconstructed businesses that evolve from today’s e-marketplaces. Such strategies require stripping away the complexity and creating industry-specific insights into the ways that e-commerce will yield new advantages and erode old ones. Translating the vision into pragmatic action agendas, companies can steal a significant march on their competitors.

Amongst Australia and New Zealand’s leading corporates, the next five years will see the real winners emerge. In the global game that B2B e-commerce will become, the actions of these players will be the major determinants of Australasia’s net gain. Winners will be those that use their strong industry positions to proactively shape the collaboration and growth opportunities that B2B e-commerce brings. They will have the smarts and execution capabilities to do so cost effectively, partnering cleverly to manage risks and share investments without giving away the keys to advantage. But above all they will need strong leadership to manage the massive change required.
Exhibit A: B2B e-commerce models

There are three basic models of B2B e-commerce, each differentiated by the relationship between buyers and sellers. In an e-procurement model a single buyer deals with a group of sellers. In an e-sales model the roles are reversed – one seller transacting with a number of buyers. The third model, the e-marketplace, is the most inclusive, with groups of buyers and sellers meeting in an independent forum.

E-marketplaces most fully leverage the ability of the Internet to support many-to-many communications.

E-marketplaces often have a bias towards either suppliers or purchasers. This usually depends on the industry structure; where a few suppliers serve a fragmented base of customers, an e-marketplace tends to be seller-centric, and vice versa. Industries that are fragmented on both sides make neutral e-marketplaces more likely.

### B2B E-COMMERCE MODELS

<table>
<thead>
<tr>
<th>Model</th>
<th>Architecture</th>
<th>Australasian Example</th>
<th>Overseas Example</th>
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</thead>
<tbody>
<tr>
<td>E-procurement</td>
<td></td>
<td>Westpac (purchase of supplies online)</td>
<td>Walmart (retail goods for resale)</td>
</tr>
<tr>
<td>Buyer-centric marketplace</td>
<td></td>
<td>corProcure (horizontal e-marketplace)</td>
<td>Covisint (auto components)</td>
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<tr>
<td>Neutral marketplace</td>
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<td>eSwitch (telecoms bandwidth e-marketplace)</td>
<td>Chemdex (life science research supplies)</td>
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<td>Seller-centric marketplace</td>
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<td>Artesian (licensed premises supplies)</td>
<td>Metalspectrum (non-ferrous metals)</td>
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<tr>
<td>E-sales</td>
<td></td>
<td>Corporate Express (office products)</td>
<td>Dell (computer hardware and peripherals)</td>
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</table>

Source: BCG analysis
E-marketplaces are characterised by their horizontal or vertical orientation. Horizontal e-marketplaces trade goods and services that are needed across many industries. These models are normally confined to indirect goods, such as office supplies, maintenance, repair and operations supplies (MRO) and services, such as training. Vertical e-marketplaces, on the other hand, provide a comprehensive offering of goods and services that are specific to a particular industry. A further distinction can be made between pure-play e-marketplaces, set up by companies that are direct participants in industry transactions, and e-marketplaces that are incumbent-led. In general, an incumbent e-marketplace is established by a consortium of buyers or sellers.

An important characteristic of an e-marketplace is the degree to which it is private or public. Public e-marketplaces allow open access for all buyers and sellers to most information in the e-marketplace. Private e-marketplaces restrict access to information, in some cases to the point where buyers and sellers use the e-marketplace only as a set of standards and technology infrastructure around which they can share information privately. This lowers costs for suppliers to connect with buyers, but retains many of the proprietary aspects of e-procurement or e-sales environments. (Indeed, e-sales and e-procurement initiatives are sometimes described as private e-marketplaces.) Where competitors cooperate to form an e-marketplace, the nature of information sharing made possible by public areas has important trade practices ramifications.

**Exhibit B: Example e-marketplaces**

### Australia And New Zealand E-Marketplaces

<table>
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<td><em>Tradehub</em></td>
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### E-Commerce

- **Tradehub**
- **The Chamber**
- **SupplyZone.co.nz**
- **Clear TradingPoint**
- **CBD Online eHub**
- **Foreman.com.au**
- **Supplier.com**
- **MachineryExchange**
- **Agriculture**
- **Computers/Technology**
- **Retail**
- **Transportation**
- **Travel/Hotels**
- **Other/Miscellaneous**
- **Printing**
- **Real Estate**

### Important Trade Practices

- **Tradehub**
- **i4hub**
- **eBusinessExchange**
- **eProcurement**
- **e-Selling**
- **e-Orders**
- **Worldwide Retail Exchange**
- **GlobalE-NXchange**
- **E-Marketplace**
- **Tradehub**
- **i4hub**
- **eBusinessExchange**
- **eProcurement**
- **e-Selling**
- **e-Orders**
- **Worldwide Retail Exchange**
- **GlobalE-NXchange**
- **E-Marketplace**
The Boston Consulting Group has published a series of reports on e-commerce. It includes the following:

- **Online Retailing in Latin America: Beyond the Storefront**  
  A BCG report in partnership with Visa International, October 2000  
  (Available in English, Spanish, and Portuguese)

- **Organising for E-Commerce: Global and Asia Pacific Challenges**  
  A BCG NetBizAsia strategy report, September 2000

- **The U.S. B2B E-Commerce Landscape Through 2004**  
  A research bulletin by The Boston Consulting Group, September 2000

- **Racing Season: B2B E-Commerce in Germany**  
  A report by The Boston Consulting Group, August 2000  
  (Available only in German)

- **Organizing for E-Commerce**  
  A discussion paper by The Boston Consulting Group, April 2000

- **The State of Online Retailing 3.0**  
  A Shop.org study by The Boston Consulting Group, April 2000

- **E-Tail of the Tiger: Retail E-Commerce in Asia-Pacific**  
  A BCG NetBizAsia strategy report, March 2000

- **Winning the Online Consumer: Insights into Online Consumer Behavior**  
  A report by The Boston Consulting Group, March 2000

- **The Race for Online Riches: E-Retailing in Europe**  
  A report by The Boston Consulting Group, February 2000

- **The B2B Opportunity: Creating Advantage Through E-Marketplaces**  
  A report by The Boston Consulting Group, October 2000

- **Mobile Commerce: Winning the On-Air Consumer**  
  A report by The Boston Consulting Group, November 2000

- **Winning the M-Commerce Customer in Australia**  
  The Australian supplement to the global BCG report, November 2000

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