GOVERNMENTS AND INDUSTRY WORKING TOGETHER TO IMPLEMENT MODERN LOGISTICS

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ABSTRACT

Globally we have a marketplace built around continued economic growth, with trade between countries continuing to transcend national boundaries where barriers previously existed.

Globalization is a two-edged sword in that it provides opportunities to maximize comparative advantage, but it also intensifies competition. Therefore it is critical that Governments recognize the changes as they impact on areas that include investment, economic growth and infrastructure development.

Companies are using logistics as a key business tool to enable them to penetrate markets and improve returns. They are utilizing regional supply chains to challenge the status quo in terms of manufacturing locations, distribution channels, the number of suppliers and information systems. This has meant in many cases an evolution to intermodalism, a rationalization of suppliers in industry structure terms and an increase in outsourcing.

It is therefore important that Governments and industry work together to effectively manage the changes that will facilitate improved performance. These areas include the practical implementation of logistics, integrated infrastructure and policy development, the removal of impediments, information technology and communications, maximizing the benefits of foreign investment and managing the change.

I. BUSINESS TODAY

Any discussion about achieving improvement in logistics needs to be built on an understanding of what trends are driving business as a whole. Governments need to be aware of these trends so as to respond with appropriate policies. These trends should also guide Governments when considering how to work with industry to maximize the country's international competitiveness.

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The first of these is the changing marketplace at global, regional and local levels. Globally we have a marketplace built on continued economic growth, with trade between countries transcending national boundaries, where barriers previously existed. Multinational companies (MNCs) continue to grow through acquisitions and mergers as they build brands. Increasingly information technology (IT) and communications have become powerhouse sectors, not just in terms of business efficiency, but also in terms of being central to new business models.

Globalization is a two-edged sword in that it provides opportunities but also intensifies competition, therefore it is critical that Governments recognize these changes and interpret their likely impact when considering policy formulation. Companies operating globally are closely assessing each market's attractiveness when making strategic decisions regarding investment. In some cases, because of finite resources, this is leading to withdrawals from certain markets in order to focus on core growth regions.

Companies continue to strive to create customer value by a combination of differentiation and lowest cost as they pursue market growth and improved returns. As a consequence, logistics and supply chain management is increasing in importance as a means of delivering value in the international business arena. These market-driven dynamics have resulted in customers demanding more from logistics globally, which is impacting at a regional and local level.

Regionally we have observed the emergence of regional logistics planning, where cross-border transactions between subsidiaries of multinationals account for an increasing amount of international trade. This has facilitated the benefits of economies of scale from large production runs using high technology. This is resulting in some production sites becoming points of single or reduced product range. The outsourcing of logistics continues to grow strongly, with companies seeking to accelerate the uptake of modern logistics skills by standardizing processes and technology, developing formal account management relationships and managing single suppliers across regions. The regional approach aims to bring about market growth at lower cost and thereby deliver improved shareholder returns.

The Asian economic crisis of the late 1990s acted as a catalyst for companies seeking transformational change. Now that growth is returning to the region the possibilities of change will increase exponentially, challenging the status quo for many existing trading patterns, arrangements and relationships. Issues such as manufacturing locations, product range, distribution channels, the role of distributors, the number and quality of suppliers and the integrated systems technology are being continually re-evaluated.

At a local level these trends translate into continued industry reform and restructuring often at a pace quicker than in the past. The 1990s also saw social issues such as the environment, employment and social justice become increasingly relevant. Business is also requiring Governments to respond to economic and social trends through policy initiatives in respect to industry regulation, free trade, financial reform, taxation, social policies and infrastructure investment.

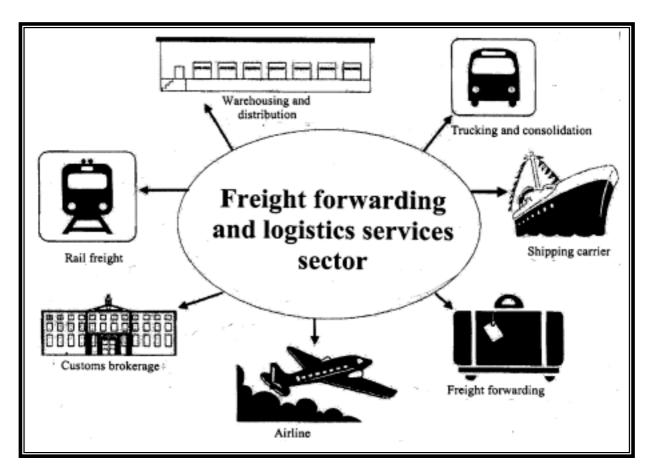
In dealing with these dynamics a major issue for Government and business is to effectively manage that change. The speed of business, the competitive environment and the deregulation of world trade require strong leadership at all levels. Those in senior roles often expect change to be automatically embraced, but such is not the case. Leadership often

determines the effectiveness of the strategies and tactics adopted by Governments and businesses. This is critical, yet change management is often given little thought or resource allocation. The issue is addressed in section V. F of this paper.

II. LOGISTICS TRENDS

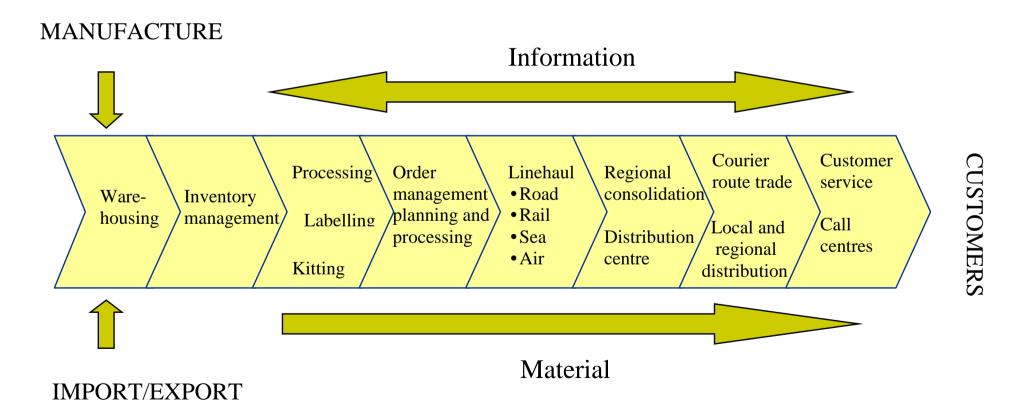
Logistics is increasing its impact on business, as it creates value for companies and assists in delivering improved profits. The application of logistics varies across continents. Modern logistics is generally a new concept in Asia, with the focus on the basic transport processes of road, rail, air and sea. These processes have in some areas been integrated into what is known as multimodal transport.

The following two figures demonstrate two views of logistics. Figure 1 outlines the functional approach that is generally adopted in Asia. The attributes of this approach focus on the individual operational aspects of transportation, where operational excellence is the dominant capability.



Source: Hong Kong Trade Development Council. China's freight forwarding and logistics: The path after entry to WTO, Research Report, July 2000.

Figure 1. An Asian view of logistics



Prior to assessing how logistics in Asia could move from its current stage of development, it is appropriate to consider how logistics has developed recently in some other regions.

A. Europe

The development of a single pan-European market remains the major influencing factor. This is placing pressure on traditional domestic logistics players to decide whether they can be a pan-European operator or carve out a product or service niche on a local level. This has led to industry consolidation, with smaller-sized operators being acquired by regional and global operators to fill a capability gap or geographical sector.

A major influence has been increasing competition as the prospect of postal liberalization in Europe (planned for 2003) has activated expansion from domestic monopolies to international service providers pursuing major growth. This is again in response to customer demands for increased geographical reach, a greater level of service capabilities and technology that integrates with their systems.

E-commerce although still in its infancy, is expected to generate growth; Scandinavian countries are leading the way with more Internet users per capita than the United States of America. This environment has led to those companies wishing to survive having to re-invent themselves from pure trucking (that is, asset-based) into IT-intensive logistics (that is, service-based) providers. This transformation has been rewarded by improved profits and increasing value on the share market.

B. North America

The growth in logistics as a specialist activity has been based on a strong presence of third-party providers (3PLs) that is, specialist logistics providers). 3PLs have been able to integrate warehousing and transportation activities. They were able to do so by using systems, initiatives such as dynamic route planning. This offered considerable benefits to customers in terms of providing seamless service and managing inventory. This integration has now developed to the point that multi-client networks can be sustained.

In the context of providing an integrated process, the management of information has become as important as the management of the operating processes, as suppliers seek to reduce inventory and provide flexibility in supply to customers. This creates value for their customers through cost reduction and facilitates increased market penetration.

This has required the development of customer-specific solutions based on a deep understanding of customer behaviour from the point of supply right through to the end user. Consequently, predicting and managing customer behaviour, together with providing integrated technology solutions, are capabilities that are differentiating logistics suppliers.

C. Australia

Companies continue to use outsourcing (growing at 10 per cent per year) as a means of enabling logistics to create value. This has led to a rationalization of suppliers as customers aim to standardize and initiate actions to more effectively manage suppliers. Customers continue to require innovation and demand low cost and this requires traditionally based transport companies to move from an operational focus to demonstrating how they can add value through the total logistics process. This has involved major investment to develop innovative equipment and an upgrading of technology. Providers are also challenged to respond to customers' requirements to manage inventory as a key means of reducing cost within their business.

Many Australian companies have moved their manufacturing offshore and, given its position as a net importer, Australia is often at the end of a supply chain. In terms of logistics, Australia is mature and Asia immature, yet Australia depends on Asia in a trade and supply-chain sense.

This is resulting in competition intensifying from 3PLs and international forwarders who have built relationships at a global and regional level and whose customers require a presence in Australia. International postal companies from the Netherlands and Germany have acquired logistics operations and major shipping companies continue to invest so as to vertically integrate from shipping into broader logistics solutions. This environment and the withdrawal from some sectors by traditional major players have resulted in a re-ordering of the Australian market.

D. Asia

The double-digit growth of the 1980s and early 1990s slowed owing to the Asian financial crisis that occurred in 1997. However, growth is returning and logistics is again high on the agenda as companies pursue market penetration and cost reduction. The introduction of modern logistics techniques to Asia has generally been done by those MNCs manufacturing or retailing, or both, fast-moving consumer goods. These companies have utilized modern logistics techniques to deal with the high levels of growth and a more demanding customer base. However, issues such as appropriate management, adequate technology and critical mass to justify the economics of central distribution centres have an important influence on the speed of logistics development. While the crisis has slowed the momentum of the mid 1990s, logistics is now emerging as a key tool in creating value.

This is occurring as global companies pursue regional solutions from a manufacturing and supply-chain perspective. This has led to decisions in respect to restructuring of manufacturing locations and redefining what products are sourced from what countries. They also are reviewing their historic distribution channels as the role of trading companies as distributors are being reassessed. Distributors have generally acted in both the sale and physical distribution functions, but some MNCs now believe it is strategically important to manage sales directly and to utilize specialist logistics firms for distribution.

This issue is often impacted on by government legislation in respect to foreign investment. The aftermath of the Asian financial crisis has resulted in a new wave of foreign investment as the majority of countries have freed up their foreign investment policy. As an example, in Thailand the freeing-up allowed Mayne Nickless, an Australian 3PL, to negotiate a majority foreign-owned joint venture. This was essential to meet customer expectations and to enable the board of directors of the company to have the confidence that adequate returns could be achieved in a country that they were entering for the first time.

These regional snapshots indicate five significant observations relating to the impact of logistics in Asia:

- (a) Regional logistics strategies do play an important role in companies achieving their profit targets through market growth and the lowering of total cost;
- (b) Companies have used the outsourcing of the logistics functions to 3PLs as a means of accelerating the take-up of modern logistics techniques;
- (c) Industry rationalization has occurred in most countries, both from a customer and logistics-supplier perspective;
- (d) The new concepts of logistics as they apply to modern economies demand an improvement of skills in management, information and other key capability areas;
- (e) Governments can influence logistics development.

It is these observations that are discussed later in this article.

III. THE IMPORTANCE OF LOGISTICS TO GOVERNMENT

There is also evidence that, while the provision of integrated logistics is generally a new concept in Asia, Governments have been focusing on improving the management and efficiency of the transport sector.

Governments are now recognizing its value to domestic companies in improving their profit performance. It is recognized that in utilizing logistics to create value, domestic firms will also improve their international competitiveness. This is critical to underpinning a country's planned future economic growth. One example of this increasing importance is China, where a <u>China Daily</u> article of 6 June 2000 reported a government official as stating that China's logistics industry had not kept pace with the country's rapid economic development and the shift to a market economy. The article stressed the importance of a rapid development of the logistics industry to improve the quality and structure of the national economy. It put forward the view that the development of the logistics industry was necessary to meet the expected demands of growth in international trade expected from China's proposed entry to the World Trade Organization (WTO).

There is also recognition of the emergence of e-commerce, which is expected to expedite the growth of modern logistics. One cannot pick up a logistics magazine

or look at a conference agenda without seeing it in a pre-eminent position. Other technology initiatives such as the Global Positioning System and intelligent transport technology for toll collection, electronic data interchange, and for monitoring and charging are other rapidly developing areas of interest to Governments.

These issues indicate that the potential value of logistics as a value-creating business tool is understood at a government level. This reinforces the importance of moving to the contemporary Western model referred to in figure 2.

IV. A SELF-TEST FOR GOVERNMENTS

Governments, upon recognizing the importance of logistics, need to ensure that they conduct a frank assessment of their own situation. Such an assessment must take into account links to the marketplace (globally, regionally and locally) and industry generally.

To assist this, listed below is a range of questions that could be used in order to facilitate discussion that can assist in establishing the current situation. They are not meant to cover all the issues but are provided as a stimulus for discussion between Government and industry as a starting point for development an integrated plan.

- Do Governments understand the dynamics of today's marketplace?
- Is there adequate practical and commercial knowledge in the bureaucracy?
- Are there a significant number of industry leaders?
- How developed is the concept of modern logistics in the industry?
- Is there an integrated reform agenda with targets and measures that support a common vision?
- Is the investment in infrastructure adequate to support growth and reforms?
- Is infrastructure investment based on appropriate economic considerations?
- Are safety and environmental considerations adequate in logistics planning?
- Is the regulatory environment stimulating the desired outcome?
- Is industry taking the lead in self-regulation and setting industry standards?
- Is funding delivering practical outcomes?
- Do modes complement the shared vision rather than simply compete?
- Are taxes and charges being used to stimulate efficiency?
- Are efficiency targets in place for government departments?
- Is there an adequate consultation process with industry?
- Do best practice projects exist in conjunction with industry?
- Do economic development strategies adequately consider logistics issues?
- Do foreign investment regulations adequately support logistics development?
- Does appropriate education exist across the logistics industry?

Does technology coordination exist?

V. POSSIBLE INSIGHTS TO ASSIST LOGISTICS DEVELOPMENT IN ASIAN COUNTRIES

Although the challenges for Asian countries are considerable, they are achievable. Multiple initiatives need to be put in place concurrently. Integrating an agreed action plan becomes a key role for Government. I would like to comment on a number of key areas and offer some observations that may assist those considering how to move forward. They include:

- (a) The practical implementation of the concept of logistics;
- (b) Integrated infrastructure policy and development;
- (c) Removing impediments to logistics;
- (d) Information technology and communications;
- (e) Maximizing the benefits of foreign investment;
- (f) The ability to manage change.

A. The practical implementation of the concept of logistics

The provision of modern logistics is a new concept in many parts of Asia. The transport sector is often viewed as a set of individual industries such as trucking, warehousing and freight forwarding, rather than as an integrated system which manages products and processes through the manufacturing and distribution process. The business objective of logistics is to support growth in profits and market share.

The shift in business thinking is being driven by customers who now assess logistics from the perspective of product flowing from the point of supply through to the customers. While evolution will support such a shift over time, customers and shareholders are demanding accelerated change. To that end I would advocate the consideration of initiatives such as attracting foreign investment that introduce logistics skills and educating the workforce on logistics:

(a) Attracting foreign investment that introduces logistics skills

The introduction of logistics to help local companies achieve increased international trade and profits can be accelerated by the specific targeting of foreign investment that brings with it modern logistics know-how. This would include the application of technology (warehouse management systems), the use of modern materials-handling equipment, the restructuring of traditional sales and physical distribution methods and skilled expatriates who could assist in the education of the local workforce. Such foreign investor firms are also likely to have relationships with freight forwarders and logistics providers, or both, that have the global and regional reach necessary to support export market expansion.

Given the trends in globalization it is also appropriate to consider MNCs which, through deregulation in either specific industry areas or in areas such as retailing and distribution, can now access critical mass in respect to the number of sites. This will support the viability of central and regional distribution centres and

provides the underpinning volume for an effective distribution network. This will be a key initiative in logistics development.

The targeting of foreign investment with logistics skills will accelerate the implementation of logistics practices. The business culture of these firms is also likely to be of significant benefit in driving growth. The targeting will be critical, as the matching of the logistics skills with the correct market opportunity will be important to ensure the viability of those enterprises. This is critical, as already in Asia there is significant foreign investment by a range of companies and issues such as joint venture suitability, access to the market, lack of scale and demand for short-term returns may currently be limiting the benefit of that investment. Governments may therefore give consideration to a strategic review with target foreign companies, including existing investors, aimed at packaging proposals to support the area of growth that is being targeted.

Another aspect that could be considered is the attracting of 3PL operators to the country. 3PLs have the capacity to upgrade skills in both the domestic and export markets.

A report in the <u>McKinsey Quarterly</u> estimated the 3PL market would grow 5 to 10 times faster over the next decade than the traditional freight forwarding market. In fact, evidence suggests that many large global players are migrating from a transport and freight forwarding focus by establishing specialist 3PL divisions within their organizations.

3PLs attempt to differentiate themselves from traditional transport companies by including engineers, business consulting, materials' handling, industry-specific skills, change management, business modelling, IT and management accounting. Such a multi-skilled resourcing approach enables them to have the necessary business perspective to be part of their customers' solution to the problem of delivering improved market performance.

Matching of domestic companies in growth industries with foreign companies from 3PLs and freight forwarding markets can accelerate the change to modern logistics thinking. It also has the benefits of increasing employment and providing the workforce with skills in critical capabilities. Our own experience in Thailand and Malaysia has been that numbers of employees grow, the skills of operational workforce are improved using technology implementation and middle management capabilities are developed. These are significant benefits.

(b) *Education in logistics*

The education and skilling of the workforce is critical to building capability. Five opportunities exist to educate different segments as to the role of logistics, its application and development.

(i) Tertiary alliances

A number of international tertiary institutions have, during the 1990s developed specific logistics programmes with strong reputations. Establishing

alliances with those institutions could result in programmes that introduce recent graduates to the country and could also include delivery of these programmes in Asian countries. There are a number of well-known institutions in the United Kingdom of Great Britain and Northern Ireland, North America and Australia that could be of value in establishing an appropriate alliance.

(ii) Operational training

A number of countries also conduct a range of programmes that provide specific industry skills training, commencing at industry entry level. Governments should consider the development of an alliance with a suitable institution for skills training in areas including warehousing, materials handling equipment and transport management. Such providers are often accredited through industry training bodies and alliances to enable transfer of training materials should be considered.

(iii) Exchanges

Governments could give consideration to fostering exchanges between local companies and overseas firms who have reputations for logistics skills in the targeted industries. These exchanges could also be at government level, which could introduce government officials to business trends in other countries that deal with policy formulation in respect to transport and logistics. This may be very valuable in helping to integrate government departments and manage change.

(iv) Projects

Governments may wish to consider developing skills through specific projects. This could involve specialist resources being brought in initially to guide project planning and then via the Internet, videos and communication to provide ongoing mentoring. Such projects could seek support from 3PLs and freight forwarders who may be prepared to commit resources in order to develop the country's knowledge of logistics. Encouraging business to make a commitment to the development of the industry is important.

Another approach to project education could be the use of expert skills to guide the demonstration of best practice approaches to logistics. The Government, working together with business, could nominate a target industry and support the development of a specific best-practice logistics project. This could fund the expert skills on for example a 6- to 12-month basis and then the project would be used to demonstrate initiatives to the wider business community. Government could also include support to such projects in terms of incentives or other resources.

A best-practice programme has been used in Australia by the Government to introduce new management techniques. Initially starting in the manufacturing sector, it spread into the retail and services sectors. A further example is the "supermarket-to-Asia" project facilitated by the Australian

Federal Government, which has worked in partnership with Australian industry to develop a business plan for Australian exports, with a major emphasis on the role of logistics. This particular project approach is well structured on the federal level, with a supporting structure of State air- and sea-freight councils. It has the added advantage of involving business commitment and is a practical example of industry learning in a practical sense. Again such projects have significant demonstration value and as a consequence the Australian Federal Government has recently announced a considerable increase in funding for appropriate project-based logistics development. It also has announced the development of an action agenda for the freight transport logistics industry.

(v) General education among industry

Another important issue is the development of knowledge among domestic firms in respect to the benefits of logistics. If Governments wish this to change, an active education programme among those sectors where growth is expected is essential. One example was a white goods manufacturer operating in Asia with a US\$ 2 billion annual turnover and growing at 30 per cent per annum. It had five product streams and five separate approaches to logistics and distribution, five warehouses, five sets of sales strategies, five approaches to sets of purchasing negotiations and five sets of inventory management. This kind of duplication and lack of integration is a significant disadvantage in the marketplace and is likely to reduce the company's international competitiveness.

In this example, centralized coordination of logistics would result in improved asset utilization, less warehouse space, improved purchasing power and, in all probability, streamlined delivery patterns. These would all be critical elements in supporting export growth targets. Enterprises such as this need to be educated as to the benefits of adopting modern logistics practices. Governments have a role in facilitating this.

B. Integrated infrastructure policy and development

It appears that Governments generally acknowledge that infrastructure plays an important role in underpinning the ability to cope with projected growth. It therefore must be a priority to integrate infrastructure development so as to maximize the benefits of investment.

Observations show that the separation of ministries, unspecified funding allocations and a lack of formal transport planning can all minimize the impact of infrastructure investment. The reality of the private sector now funding infrastructure development adds another complication that needs to be appropriately managed.

Consideration needs to be given by Governments to the establishment of transport planning task forces that can sit above functional department structures (often multiple) and aside from the vested interests of individual enterprises in order to assess projects on the basis of regional and national importance.

Governments should endeavour to develop infrastructure plans based on economic considerations and consider all modes from a complementary point of view. They should also consider other initiatives such as inland container depots and transport interchanges, as well as streamlining processes and regulations for the integration of cargo across all modes. The standardizing of documents and consistent regulations relating to items such as dangerous goods can make it easier for businesses to operate.

A key initiative could be the establishment of a reform platform for regulations that impede logistics. This would require government departments to consult with shippers, transport operators, freight forwarders and their associations, as well as liaise across other government departments to ensure that barriers are removed.

Again, Australia offers some examples of industry input. A recent initiative was the establishment of freight action advisory groups. Governments should consider forming an advisory or reference group of industry and users who can come together on a regular basis to advise government agencies on trends and impediments. Governments and industry working together can offer significant benefits to all parties.

C. Removing impediments to logistics

A key issue identified earlier in the paper was the separation of departments, the role of provincial and local regulations and the split between the management of internal and external trade. These present a range of impediments to implementing integrated logistics and impact on international competitiveness.

This issue is not unique to Asian countries. Only in recent years has Australia initiated a national programme with the support of State Governments to standardize national road regulations in order to facilitate improved efficiency and competitiveness. The National Road Transport Commission has been the vehicle for reform and over the last few years has worked with industry and State Governments to develop reform agendas that have made considerable progress.

This process has in fact resulted in industry having to take on greater responsibility. The result has been that industry, via the Australian Trucking Association, has developed an effective National Peak Lobbying body that is now the bridge between Government and industry. This has led to industry-driven initiatives in truck safety, driver heath, fatigue management, technical coordination, codes of conduct and tax reform. A critical element in sustaining this level of industry involvement relates to delivering outputs of demonstrable value to the industry, funding links between Government and industry, and delivering benefits to those sections of industry that lift standards. The air- and sea-freight councils mentioned above are also active in developing reform agenda in respect to barriers to development.

There are a number of examples across Asia where processes and systems are not consistent across departments. A recent example relates to lack of consistency in customs processes and driver and truck records in a country. As a result, the

maximum asset utilization possible from a truck fleet was 45 per cent. The development of a consistent process in such a situation would be an ideal opportunity for a project between Government and industry.

In that case, the inability of the operator to service customers was limited by the non-availability of trucks (when they were sitting idle) with a resultant reduction in service levels. Such reductions in service levels cause delays in the supply chain of up to 25 per cent and uncertainty of supply times for customers. In addition, higher prices may have to be changed for transport services to achieve a suitable return on the investment made.

Ultimately time delays, the higher costs of doing business and uncertainty caused by these types of procedural issues can cause current and potential investors to review their investment decisions and lead them to consider investing in other regions or countries.

Reform in these areas should be a priority for Governments, as industry has expectations that protocols will be improved. Action task forces that include industry participation should be considered as a means of removing such barriers and driving efficiency to support country's expected trade growth.

It would also be expected that a reduction in the impediments would not result in any major employment issue, as economic growth and the redeployment of staff to other key areas requiring efficiency improvement would result in an overall benefit.

D. Information technology and communications

IT and communications have been identified as crucial to the development of modern logistics; in some countries the poor reliability and high cost of IT services is hampering that development.

I heard of a case recently where a 3PL was operating an MNC warehouse and had planned to connect a warehouse management system at multiple sites so as to enable all sites to accurately advise of warehouse capacity, location of stock, inventory on hand, and so forth. Currently the lack of reliable IT connections across multiple sites means enquiries from customers and staff cannot be answered speedily and therefore time and resources are wasted

The experience of that company was that the reliability of existing lines was so poor that improvements were prohibitively expensive. They stated that the high cost of installing lines and local calls is a barrier. They also stated that the lack of reliability remains a major issue as lines are used for computer transfer of data and that it was not uncommon for 56 Kb/s modems to be working at only between 2 and 10 per cent of capability.

This is not the quality of infrastructure on which to base an industry for which the effective and efficient transfer of information is critical. Its improvement must become a priority from both a service and a cost point of view. It will be absolutely essential in order to have the capability to take up e-commerce. While it is recognized that e-commerce will have a major impact on logistics, I have not chosen to discuss it

in detail in this article as the focus here is on the basics which must be in place to support such developments as e-commerce.

E. Maximizing the benefits of foreign investment

The insight I would wish to offer does not relate to the specific strategies or the merits of policy proposals under consideration by Governments, but rather to the issue of support services. While the general direction of foreign investment policy can be clear, implementation of the changes requires a major shift in the practices, skills and culture of agencies and departments dealing with foreign enterprises. Governments need to ensure that training and education on these changes are comprehensive and that there is a change in culture from what is often a single departmental mentality to one that has as its prime goal the encouragement and support of business. Making it easy to do business should become a major theme.

Any freeing-up of foreign investment would bring with it major pressures on standardizing procedures and rules so as to ensure consistent implementation. This would need to include a significant education element for both local and foreign entities. It is also important that Governments acknowledge that freeing-up would require consideration of a shift from a strict enforcement of institutional requirements to one where industry introduces self-regulation via accreditation programmes and other initiatives such as codes of conduct among industry participants. This would be very relevant to the transport and freight-forwarding sector. The establishment of industry-driven initiatives in this area, based on international standards, would make business easier and allow the focus of enforcement on those who do not comply.

Speed in dealing with industry would also be an issue. Currently dealings with Government departments in some countries are considered slow by industry. Governments may wish to consider re-engineering key business services to a best-practice model so as to set a standard that would encourage investment. The setting of benchmarks can be a valuable tool in raising standards.

Governments should give consideration to encouraging service providers in industries associated with logistics to develop industry associations that can assist Governments in coordinating with industry. This would help with the establishment of standards consistent with international standards (in terms of documents, service and so forth) that should be supported by government legislation in respect to sanctions and penalties.

A particular emphasis could be in the area of advice in respect to joint ventures. Governments may wish to consider how it may promote "best practice" in order to develop effective joint ventures. It would be our belief that increased foreign investment may be followed by a high level of frustration between joint venture partners. It is my observation that in Asia joint ventures can be valuable in creating a successful business. Foreign and local partners often have different expectations about how things should be done. Therefore, the time taken to obtain a correct match in skills, strategic intent and culture may often be a long one. The issues of management control, dividend policy, veto rights, pre-emptive rights, management decision-making, the use of expatriates, ongoing research and development are often glossed over. The Western tendency is to rush, often without time for the development of

proper relationship and trust. Like many aspects of business the success of a joint venture depends on trust and stability. Initiatives Governments could take in this regard would assist in maximizing the benefits of foreign investment.

F. The ability to manage change

In considering in broad terms the desired role of logistics in supporting economic development, it is important to be realistic as to what can be achieved and in what timeframe. The consequence, however, of the rapidly changing global and regional environment is that it will be critical for Governments to work concurrently at a range of levels within both Government and business.

As stated at the outset of this paper, for Governments to achieve the objective of change, management must receive the appropriate level of attention. The global and regional environment would continue to change. The ability to manage this change will be as much about culture and leadership as it is about strategies and tactics. Establishing a shared vision at both government and business levels will be critical. While the pressure for change as a result of globalization might be clear to the Government, unless that change is communicated and understood at all levels its intended benefits might not be achieved. A clear plan involving key industry sectors and leaders may be an essential step in demonstrating leadership in areas such as logistics.

At a personal level, individuals do not act unless they feel a pressure for change. This often only occurs as the result of a major crisis that impacts on them from a financial or job security viewpoint. Until individuals decide to act differently as a result of the changes around them, little may change. An imperative for change has to exist and those implementing that change should ensure that any plans go to all levels of government and business. Governments must ensure that they adequately align their business community and workforce with any new directions they adopt.

The skilling of management and workforce will also be important in developing the competencies and capabilities required. Strong leadership by management at all levels is critical so that those at an operational level in either business or Government see the commitment to change coming from the top. Communication and the involvement of staff and customers are often critical to getting the necessary buy-in for change.

CONCLUSION

Logistics does have the capacity to be of significant value to both Governments and industry. It is an essential tool for companies to achieve increased market penetration and improved returns. Logistics suppliers that innovate, integrate and work with their customers are making significant progress.

The challenge is for Governments and industry to work together to educate companies in the use of modern logistics skills, encourage the transformation of traditional transportation operations into logistics providers, develop infrastructure (including IT) and manage the change.