E-Commerce and E-Government: Platform for Change and Organisational Transformation

By Dr Raja Malik Mohamed, INTAN

INTRODUCTION: TRANSFORMATION AS A CONCEPT

Organisational transformation can be used interchangeably with terms like Organisational Restructuring, Business Process Reengineering (BPR), Business Process Improvement, Process Innovation, Business Transformation Cycle, Organisational Learning, and Total Quality Management (TQM). Transformation is a change of form, shape, character, condition, or nature. Organisational transformation is a concept, which simply means change that takes place in organisation. However, it can be interpreted in many different ways. It can be viewed from different perspective, two of which, transformation as a process of "continuous improvement", and, secondly, transformation as a "reengineering" process. This is a case of two extreme situations of transformation. It is generally accepted that continuous improvement is characterised by small process improvement, incremental in nature, evolutionary and requires improvement of specific and existing systems. This is also popularised by the Japanese management process-based concept of Kaizen. Reengineering, on the other hand, look at large processes, awesome and quantum leap in nature, revolutionary and requires a re-design of total systems. It can also be viewed by categorising it at three different levels: from streamlining of operations at the very basic level to integrating of work and unify job functions and transforming organisation for the most aggressive project. Depending on the degree of transformation, the effort and amount of change differ. Here, organisation transformation is total re-engineering.

A different perspective can also be to look at the level and scope transformation occurred. Such a change may take place at the highest level of Government or nation, or at the lowest hierarchical level, in organisational units. At a wider scope, like for a nation, transformation or changes are to be expected, planned and monitored for the benefit of society (citizens) and economy (businesses). Term like "Reinventing the Government" is commonly popularised by many gurus in management, which set to look at change of governance. On the other hand, at the lowest unit level of an organisation, one talks of improvement in processes or sub-processes to mean change. By and large, at any level of organisation, Change Management and Business Process Reengineering are strategic tools for many consultants of complex and huge modernisation projects involving cross-organisation transformation. In the long term, collective changes at the level of organisation will bring about changes at the level of industry and the nation.
Organisational transformation is also associated with "transformational management", a concept that means organisational re-design, people transformation, process orientation, breakthrough thinking reengineering, and so forth. While this is so, these are also tools for change. In this respect, there are also references being made to transformation methods. Clemson (1993) identifies at least 12 distinctively different and widely successful approaches or methods for making large scale corporate change. Some of these are Advanced Information Technologies, Coaching for Breakthroughs, Organisational Learning, Soft Systems Methodology, System Dynamic, Total Quality Management, and Viable System Model.

With this preface, I will limit the scope of our discussion as follows.

Focus on Malaysian experience in organisational transformation
Discuss the dual role of e-commerce and e-government towards national transformation, that of achieving the Vision 2020
Basis is on the e-commerce objectives of creating a business transformation and the objectives of e-government in transformation the way public sector provide services to both citizens and business communities, as well as in changing the way the government departments operate.

MALAYSIAN EXPERIENCE IN TRANSFORMATION

Having introduced you to the essential concepts and perceptions, I would like to discuss the roles of Electronic Commerce (or e-commerce) and Electronic Government (or e-government) as transformational instruments of organisation in Malaysia. To shed some light into this issue, I will begin with some historical development towards the implementation of the e-commerce and e-government initiatives. Prior to the MSC project, pockets of transformation have already taken place. The public service saw initiatives such as organisational restructuring and downsizing of the public sector, productivity and quality movements which includes QCC, TQM and ISO. Administrative Reform Circulars were also introduced. In these periods, change is expected, especially with rapid use of Information Technology (IT) through better integration of computers, telecommunications and office automation. IT has created and generated new interests in organisational development as seen with the absorption of computer systems to support planning, strategic decision-making, process reengineering and information source. The emergence of IT and information systems then promise drastic and monumental changes in working procedures, organisational structures, and at a wider scale, in the society. However, studies have indicated that there have been less than visible success stories at a convincing scale. However, in the eighties, transformational efforts produce minimal success, IT for instance has not been able to effectively bring about transformation in the way the public service operates. In business, the widespread use of IT is in seen to be hugely successful in banks and airlines, although much of the other businesses and commerce are more conventional. As for most businesses, the use of technologies is limited to
the large established companies.

In the nineties, organisations have begun to step up a gear in the use and applications of IT, and with these made drastic changes in administrative processes and structures. IT then has become more of an enabler of change, and become more strategic in its role for organisation. Business through the use of IT and Internet has begun to flourish especially in the more developed countries.

In Malaysia, the Government’s MSC project has been instrumental in providing the necessary platform for change or transformation. Malaysians believe that the MSC is a unique model and initiative to transform Malaysia into a fully developed and industrialised country by the year 2020. It provides the nation with a holistic approach and well-defined mechanism that looks at IT as strategic tools and enabler for change, towards achieving the above vision. To spearhead the development of the MSC and give shape to its environment, seven primary areas for multimedia applications have been identified. These 7 Flagship Applications serve two main purposes or platform: first, to provide the necessary "development" mechanism, and secondly, assuring an "environment" for the growth of our multimedia and information technologies.

The "development" applications comprise the public service initiated "Electronic Government", "Multi-Purpose Card", "Smart Schools", and "Telemedicine". In supporting Vision 2020, the MSC’s development applications endeavour to transform core elements of Malaysia’s technology infrastructure and social systems in areas such as education or public administration, using multimedia technologies as a critical enabler in the process.

The "environment" flagships, on the other hand, are private-sector based, including "Research and Development Cluster", World Wide Manufacturing Web", and "Borderless Marketing". Electronic Commerce is an important component of the Borderless Marketing flagship application. These "environment" applications substantiate the MSC’s bid to develop a "Multimedia Utopia" for innovative producers and users of multimedia technologies. It will also innovate entire businesses by taking full advantage of MSC’s unique environment and infrastructure.

Therefore, I would like to reiterate my point earlier that our bet for effective change lies with our MSC initiative, through the two platforms (for development and environment) it sets for change. These two platforms support the two applications, e-commerce (which is part of the Borderless Marketing flagship) and e-government. While e-commerce concerns with business transformation with business-to-business and business-to-citizen, e-government is about transformation in the Government administration where the transactions are citizen-to-government and business-to-government. In other words, transformation via both e-commerce and e-government serve the business communities and citizens.
I will go on to discuss critical roles of both e-commerce and e-government as change instruments for the business and public service in Malaysia. The primary role of e-commerce, as defined by the MSC initiative is to revolutionise or transform industry processes and structures. It also will redefine the competitive landscape for businesses around the world, thereby creating a new business paradigm with a movement from conventional to electronic business. How e-commerce transforms organisation can be elaborated as follows:

a). E-commerce is part of the Borderless Marketing Flagship. With borderless marketing, transformation in business processes will take place through facilitating existing business and creation of new business.

Existing business will be enhanced due to the following reasons:

Existing technology enables businesses to access to new and bigger markets;
Availability of interactive technology such as multimedia, ICT or Information Communication Technology will definitely enhance service level and improves customisation;
Lowering of operation cost through better turnaround times effected by on-line delivery of services. This create virtual business community, thus minimise physical business outlet, on the other hand enable business to effectively reach customers across time zone, space and form.
Direct interaction provides fast access to information and service; and
Better global coverage brought about by new telecommunication network. This will enable local companies to be global player in their perspective business.
Transformation of the business sector through e-commerce, will lay out the path for new business to be created because:

customers are able to operate on-line, thus requiring and creating new markets for products and services. This will enable new, young and dynamic countries to leapfrog in the Information Age.
Multimedia and ICT technologies remove necessity of investment in physical outlets. For example, the Internet may be the platform for business operations, thus creating level playing field for large and small companies; and,
Multimedia provides new channels of reaching customers and catalyses new ways of doing business. This will provide companies the opportunity to be creative and innovative and excel. It will enable them to build new businesses and shape new ideas.

Now, lets look at the dual roles of e-government in MSC. Firstly, in re-inventing the
government, and follow with in catalysing MSC’s growth and development. This therefore reflects e-government as agent for change in both the public and private sectors. Within the public service, it enables a transformed administration and management of the public sector, which ultimately serves the citizen and business better. E-government will improve both how government operates internally as well as how it delivers services to the people of Malaysia. With e-government, the way citizens and businesses are being served will change. They may need not go to government departments anymore as services can be delivered at a nearby one-stop kiosk, or even at the convenience of their homes. The roles of e-government as instrument in transforming the public service are as follows:

The widespread use of multimedia and other technologies will physically re-invent the way the government operates. For example the use of kiosk, smart-card and communication equipment as an information or as a transactional process media.

E-government project is not mere computerisation of government. It involves the effort of reinventing processes, standards and technologies, up and above that of introducing computerisation to existing government structures and processes.

The latest and fastest telecommunication technologies and IT infrastructure enables efficient communication among government agencies, thereby facilitating knowledge development in a learning public service.

As catalyst of MSC, e-government helps prepare the necessary environment for business to operate with minimal disruption and constraints. Some of the support provided includes the development of standards and procedures, examples of which are the Electronic Procurement applications, and other standards and guidelines. Other support mechanisms are the Cyberlaws and policies pertaining to investment and doing business in Malaysia.

**CRITICAL DETERMINANT OF SUCCESS FOR E-COMMERCE AND E-GOVERNMENT AND RELATED ISSUES**

The success of these two MSC applications, I believe, hinges on the actual transformational processes that take place in organisations. I would next discuss issues and proposed solutions in implementing transformation through e-commerce and e-government.

One of the more familiar views on organisational transformation is that of process improvement or reengineering, commonly referred to, respectively, as Business Improvement Process (BIP) or Business Process Reengineering (BPR). This implies better and simplified workflow process, new systems, and better structures. This needs to be supported by other improvement in organisational and structural components, like having an optimum workforce. By operating with optimum size that
supports new business processes, organisation will be more productive, that is "producing more with less". As with present and future developments, networked organisations, an imminent structural innovation brought about by IT, are accepted as the modern effective way of working. There will be better opportunities and environment for information sharing, information access and dissemination, and inter-personal communication.

Public sector organisations, although are typically big and rigid, usually are too slow to change itself. However, this can be overcome if organisation inculcate learning culture. Organisational learning makes possible the process of transformation if organisation can adapt to changes in the external environment, yet maintain internal stability internally and improve its internal weaknesses. There however must be an organisational will to learn, unlearn and re-learn, a necessary requirement for the organisation to adapt and may even create change. In this respect, organisation needs to commit big investment in learning and organisational development. Prudent investment on creating a learning organisation will impair organisational development, as there will be limited knowledge and learning process to adapt to external forces of change. To strengthen this viewpoint, it is agreed by many that with organisational learning taking place, it will give rise to strong knowledge base. In today’s and future organisation, the management and use of knowledge is critical for an organisation’s survival. Of course, a fluid and dynamic structure that is devoid of serious bureaucratic flaws will enhance the development of knowledge and ensure learning takes place.

Transformational management is an issue pertaining to effective management of the change process. What is needed is to transform management in the following way.

Among new skills requirement in transformational management are visionary leadership, strategic alignment of corporate strategy and IT, strategic core competencies, empowerment, people transformation, and many more.

Managers, in making decisions, need to balance between the use of traditional quantifiable measures and the more soft approach, where the emphasis is on people, culture, relationships and subjective measures. Newer tools, IT-based, and management techniques using scientific and OR-based models, are relevant in today’s complex situation.

New hybrid managers who are technocrats who are more effective in bringing about transformation in organisations, especially in the competitive world of business, when government and business cuts across.

The transformation of workforce into one that is multi-skilled and having high degree of competence and proficiency. There must be enough expertise as well as skilled worker. Ideally, there must be enough groups of worker or a critical mass that are
called Knowledge Worker. These workers are those capable of using information to bring added value to organisational processes and services to clients, creative enough to invent new methods, tools and ways of doing things. The workforce needs to have a high degree of competence and professionalism. They are also preferred as organisational citizens who are committed and dedicated in their pursuit of organisational excellence.

E-commerce is relatively not widespread in its use. Among the reasons are low acceptability by companies, immaturity of appropriate technology and inability of companies to reengineer its internal operations. Various measures need to be taken if e-commerce are to be successfully implemented:

One critical requirement here is the creation of e-commerce culture among companies of all sizes.

Implementing digital signature as in Malaysian case may need time and proper nurturing before its use is widely accepted

With e-commerce becoming more sophisticated, companies are forced to streamline supply chain management processes or back-office in order to survive in the marketplace

Customers’ expectations on the Internet and doing e-commerce are going to be much higher than what companies are used to. This means that back-end processing such as financial component, inventory management and product delivery should be improved

Effectively implementing organisational changes is associated with the use of technologies (especially IT), which remains difficult in a turbulent, complex, and uncertain environment, as technology is only a component of the required change process. Nevertheless, to overcome this shortcoming, it is crucial to transform the role of IT from mere implementation tool to an enabler of change, which involves changing the paradigm of IT use in organisation. IT needs to align itself with business goals and used strategically. The role of information technologies as change tools is crucial, to enable more flexible processes, greater knowledge sharing, and global integration.

Another critical transformation requirement is that of public-private sector interfaces, more so in the implementation of the e-commerce and e-government. With borderless working environment through networked organisation, there will be smarter inter-sectoral partnership and collaboration, whereby personnel can move between the two sectors in undertaking research and innovation, as well as implementing mega projects. Such transparency of skills between the two sectors enables new product development through high level creativity and innovation efforts.
Efforts to implement change over the years encounter numerous difficulties and restraints. Issues mentioned above are sometimes limiting the change process. Another issue of concerned today is the very nature or identity of the public service itself. Public sector is by nature massive, complex, "soft" and having dynamism of control. Massiveness creates rigidity and, more often than not, insensitive and slow to respond to change and progress. Lack of creativity, often due to its hierarchy of processes and decisions, means it is not able to introduce new reforms. It is complex, as there are a variety of agencies, programmes, policies, instruments, techniques, rules and operations that have been around for a pretty long time. Being "soft", achievable objectives and goals are not well and clearly defined, and is not possible to subject an overriding criterion of value, such as ‘profitability’ as in the private sector’s case. Managing soft issues in itself requires a lot of knowledge, experience and skills in managing people and their relationships (both inter-personal and working relationships), internalising positive and ethical organisational culture and values, providing rich customer-relationships, and survive well environmental factors affecting change such as societal and politics. How these factors are managed determine to a large extent the successes in managing the "hard" issues or the more clear-cut and well-defined issues in finance, materials and technology. The dynamism of the public sector is that of interpenetrating networks of procedural control focused on the individual decision-maker at several levels vertically and horizontally in an organisation. The huge set-up, complex internal mechanism, soft nature coupled with aggressive and volatile external changes create a dilemma as to whether all the theories of reinvention, transformation and change really are effectively workable in the public sector.

Quantification of transformation in the form of measured variables has not been an easy task. Many transformation exercise equate success with minimum (or even, zero) customer complaints, having paper-less administration, less and faster processes, downsized structure and workforce, and others. However, these factors should never be looked in isolation, as what is desired of the change is for the customer to be happy, where complaints are not the best measures.

CONCLUDING REMARKS

In conclusion, Malaysia recognises that transformation at national level is necessary. Organisational transformation plays a role in contributing towards that. MSC is the main vehicle to support and facilitate change. Both e-commerce and e-government, as component applications, provide environmental and development platform for such change.

To successfully realise the vision for e-government means fundamentally changing how government operates and implies a new set of responsibilities for civil servants, businesses and citizens. Offering new services, new information, new service channels and improved service levels will call for changes in mindset and the
development of new skills. As such, a successful experiment at e-government can bring about fundamental changes in the fabric of society and be an important contributor in Malaysia’s overall effort to become a fully developed nation.

As for e-commerce, its success depends on the transformation in organisation, i.e. companies involved in cutting edge technology and innovative business models. These are supported by conducive regulatory environment in the form of Cyberlaws, high bandwidth telecommunications network supporting e-commerce applications. Further, support from the Government come from the e-government applications, which provide business opportunities for e-commerce companies.