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The Impact of Electronic Business on the Organisation

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Abstract

E-business is fast becoming an important initiative for companies to consider, one that impacts every aspect of how a business is run. This report investigates the impact of e-business implementation on various aspects of the organisation including: strategy, human resources, customer relationship management, the IT department, technology, the business environment, trust, service management and performance metrics. Implementing e-business applications will require process redesign, organisational restructuring and alignment, new job descriptions and reviewed and revised policies. Organisations will also have to examine tax, legal and security issues. E-business is changing all the rules and models. An organisation’s ability to embrace new technology and business models is key to increasing the organisation’s productivity. The Internet economy necessitates a fundamental transformation of traditional organisations. The true benefit of e-business is achieved through the digitisation of the entire value chain. For a successful e-business implementation it is important that decision-makers understand the nature of these changes, their potential impact, plan for them and manage the entire process in such a way as to ensure buy-in of all the relevant stakeholders. The decision to implement an e-business initiative should not be undertaken lightly and the benefits that can be gained from such a venture must be investigated thoroughly before deciding to go ahead.

1. Introduction

Timmel [24, p.22] quotes W. Krenz, Vice President of A.T. Kearny as saying “In 1999, the best chemical company had the best chemists. In 2005, the best chemical company will have the best e-professionals.” This is true not only for companies in the chemical industry, but for all companies in all industries. E-Business is fast becoming an important initiative for companies to consider, one that impacts every aspect of how a business is run. This report investigates the impact of e-business implementation on various aspects of an organisation. The way in which companies and end-users conduct business will change, ultimately driven by the emergence of new business models brought on by the evolution of the Internet.

Hecker [10] defines e-business as any process that a business organisation conducts over a computer-mediated network. It includes buying and selling, as well as a wide range of customer-, production- and management focused processes carried out by for-profit, government or non-profit entities. E-business is based upon the processing and transmission of digitised information, including text and visual images from one computer or some other electronic device to another. E-commerce is that part of e-business which involves buying and selling goods and services. According to Agarwal, e-business is any net-enabled business activity that transforms internal and external relationships to create value and exploit market opportunities driven by new rules of the connected economy. Furthermore, e-business involves the continuous optimisation of an organisation’s value proposition and value-chain position through the adoption of digital technology.

Implementing e-business applications will require process redesign, organisational restructuring and alignment, new job descriptions and reviewed and revised policies. Implementing e-business applications will also require organisations to examine tax, legal and security issues [13]. E-business is changing all the rules and models. An organisation’s ability to embrace new technology and business models is key to increasing the organisation’s productivity.

E-business impacts the value-chain processes in the exchange of goods, money, services and information. Basic market elements – who, what, when, where, how and why – are being radically altered by e-business. As companies incorporate e-business into their processes, a number of unique secondary effects are taking place. These effects include customers becoming more empowered, product development processes becoming more collaborative and marketing techniques becoming more targeted [12].

E-Business is focused on improving business performance through connectivity by deploying new technologies in the value chain to achieve transparency / visibility and also by connecting the value chains between and across external businesses and between business partners in order to obtain competitive
advantage, generate top line growth, reduce overall costs and open new channels. This definition of e-business extends well beyond the buy-sell relationship to include a transformation of the way to do business. If properly implemented, e-business can help an organisation to improve relationships with customers, increase revenues and cut costs.

E-business influence on an organisation can impact business efficiency and should be felt across the organisation – from the time the sales force initiates a transaction, through the manufacturing and service cycles, right up until the time when the customers pay their bills. The impact of e-business on a company’s effectiveness is found in its overall financial well-being. E-business is not just about buying over the Internet; it is about increasing the value of the organisation by improving the way it operates.

According to GMT [9] and Dalton [6] using ICT technology businesses can achieve significant improvements and cost reductions in several key functions in various departments, including

- Human resource services such as benefits, retirement planning and job postings.
- Internal communication.
- An executive information system.
- Purchasing.
- Sales force automation and management.
- Product development teams.
- Knowledge management.
- Improving relationships with partners.
- Improving time to market.
- Reducing operational costs.
- Increasing employee communication and satisfaction.
- Maintaining a competitive edge.
- Improving customer satisfaction.

The Internet economy necessitates a fundamental transformation of traditional organisations. The true benefits of e-business are achieved through the digitisation of the entire value chain [2]. Some of the most common benefits of e-business include streamlined sales processes, enhanced customer relationships, reduced operating expenses and dramatic improvements in productivity and operating efficiency [26].

2. Strategy

The implementation of an e-business has a significant impact on a company’s existing strategy as well as strategy formulation. The basis for an effective e-business strategy is an understanding of the company’s business goals – not its e-business goals. E-business is a way to facilitate improvements in a company’s processes, in addition to allowing a company to expand market penetration, geographical markets, etc. Therefore, the processes that will be integrated into the e-business infrastructure must be both known and ready for integration. To implement e-business without understanding the company’s business goals or processes is likely to lead to e-business failure [15]. Much like long-range business planning, e-business plans must be re-evaluated and adjusted on a regular basis. An e-business strategy is not a one-time event. It is an iterative process. In today’s e-economy traditional planning horizons tend to be too long for the very fluid state of e-business. Continuous planning with feedback has evolved as the strategy of choice for the fluid and volatile e-environment [23].

In a survey conducted jointly by Information Week and Business Week, IT and business executives from all industries agree that generating new sources of revenue isn’t the main goal of deploying e-business initiatives. In fact that ranked well behind creating or maintaining a competitive edge, improving customer satisfaction and keeping pace with the competition [6].

The ability to react and change direction is critical. Speed is everything. Grounding the organisation with sound, winning strategies is key [1]. E-business enabled organisations must be ready and able to adjust their business and IT strategies rapidly, depending on unpredictable competitors and market pressures. Today’s e-business climate requires the continuous optimisation of an organisation’s business and IT strategies. Because IT now has such a significant impact on every business process – from order taking to inventory to billing – both business and IT strategies are now developed in parallel.

The lack of a well-thought-out e-business strategy has led to some disastrous missteps [18]. In the past, businesses had the luxury of developing business strategies in the boardroom and information technology (IT) strategies in the IT department. They then brought these strategies together to run the overall business. A company implementing an e-business strategy cannot afford this luxury. Technology is no longer an afterthought in formulating business strategy, but the actual cause and driver [23].

According to Agarwal strategy and execution are key to developing and sustaining a successful e-business initiative. Only those organisations that successfully integrate key business strategy and processes dramatically increase their efficiencies. To be successful, organisations must also form the right strategic relationships and develop efficient business processes with robust back-end solutions that are able to meet users’ demands for real-time service today and into the future. According to Barua, Konana, Whinston & Yin [2]
the achievement of e-business operational excellence will lead to improved financial performance. Based on this premise, the central task for senior managers lies in understanding what drive operational excellence in the e-business realm, and then committing the necessary resources to the development of the drivers.

E-business plans must be devised as part of the corporate strategy and must take into consideration the impact e-business will have on processes, governance and people. It is important that companies create a single coherent plan, formalise decision-making procedures and communicate e-business initiatives across the organisation and integrate the e-business plan with corporate goals [21].

An e-business implementation will also result in a company redefining their partner relationships, resulting in more cohesive, mutually beneficial partnerships [21] and management having to re-think all channels (Internet, telephony, store, mail order, etc.) and redesign how and who delivers their product or services [21].

Developing and communicating a strategy has become essential to realising the benefits that e-business can provide. Regularly reviewing and updating the e-business strategy is equally important because the competitive landscape and Internet environment are constantly changing [18].

According to GMT [9] the following must also be considered once a company has decided to embark on an e-business initiative.

1. **Industry and company readiness**: Is our company or industry prepared for e-business? Should we rapidly develop e-business capabilities? How will our internal processes and skills need to be altered to make a successful transition to e-business?

2. **Channel conflict**: How will our channel partners react to our entrance to the e-business realm? How large a risk is channel conflict? What steps can we take to mitigate that risk?

3. **Prioritising e-business initiatives**: Which elements of e-business need our immediate attention? Which projects should be funded and which need to be placed on hold?

4. **Market models**: Which models are successful for an organisation such as ours? What considerations need to be made before adopting a market model?

5. **Organisational design**: What changes need to be made to our existing internal structure to facilitate our e-business initiative? Which organisational structures work and which do not? How can we ensure employee buy-in?

Wilder [25] reports that the Internet and communications technology have changed the way companies view their IT investments. For many companies launching e-business initiatives that advance strategic goals are more important than getting a hard-dollar return. As companies launch electronic-business projects, many are discarding their conventional thinking about the need for a return on investment and focussing on how the initiatives advance their overall business strategy – whether it is to improve customer satisfaction, increase brand awareness or open new sales channels.

### 2.1. Assessment of company operations.

Implementing e-business requires that managers assess a company’s operations by looking at both traditional and e-business measures. While most companies have a handle on the former, many are less focused on tracking e-business measures, including the percentage of an organisation’s total business that has been transacted online, the percentage of goods purchased online from suppliers, the number of existing customers doing business online, the number of new customers acquired online, and the percentage of customer service requests handled online [2]. In order to achieve e-business excellence, managers must focus on three areas, namely e-business processes for customers and suppliers; IT applications for customers, suppliers and internal operations (all of which must be integrated); and the e-business readiness of customers and suppliers [2]. To achieve operational excellence and subsequent financial gains, managers must evaluate how processes align with e-business transformation, while encouraging the participation of suppliers, customers and internal constituents [2].

### 2.2. Major success factors for e-business

The following major success factors identified by Phan [17] must be incorporated into a company’s strategy to ensure success:

- Internet technology fully integrated into the company’s overall strategy.
- Competitive advantage maintained in both operational efficiency and distinctive strategic positioning.
- Basis of competition not shifted from traditional competitive advantage such as cost, profit, quality, service and features.
- Company’s strategic positioning well maintained.
- Support from top management.
- Buyer behaviour and customer personalisation.
- Quick time to market.
- Right system infrastructure.
- Good cost control.
• Good e-business education and training to employees, management and customers.
• Customers’ and partners’ expectations well managed.
• Good products and services offered by e-business.
• Current e-business systems expanded to cover entire supply chain.
• New competitors and market shares tracked.
• Website of high quality that meets or succeeds user expectations.
• Company’s virtual marketplace established.

2.3. Requirements for a sound e-business strategy

Ernst & Young reports that without a clear e-business strategy, there is a real risk that the link between the existing business strategy and any e-business initiatives will be unclear or even non-existent. It is likely to be difficult to define and measure how initiatives will benefit the organisation if the strategic goals they support have not been defined. Ultimately this means inefficient use of both funds and talents. In addition, development of a strategy typically forces consideration and acceptance of risks. E-business presents greater uncertainty. This reinforces the need for formal risk management strategies, which regularly assess and monitor the profile of new and identified risks whether internal or external. Ernst & Young has identified the following eight steps to a sound e-business strategy:

1. Develop an e-business strategy that is part of or fits with the main business strategy. The time horizon is likely to be shorter than those in the past. There may be a greater number of options considered and initiated, often referred to as a portfolio approach. The strategy may need to be expanded from the traditional content to consider risk around confidentiality and availability of information.

2. Assess the impact of e-business initiatives on existing internal and external processes and channels to ensure they are complimentary and not counter-productive. A good website can be let down by inefficient or poorly interfaced supporting business processes. Evaluate options and be realistic about benefits and costs.

3. Consider the business organisation and the competitive landscape. Rapid changes force frequent review of goals and potentially require greater courage to discontinue less successful initiatives and start new ones.

4. Apply the same rigor and challenge to your e-business strategy as you would to other business programmes and initiatives. Use robust project management to monitor costs and timescales on projects that typically have shorter timescales. Honest reporting is key to making tough decisions and halt projects if necessary.

5. Reassess your current risk culture to assess whether it meets the needs of a business model that is open to third parties through enhanced connectivity. Develop an enabling risk management strategy and framework that robustly consider the real likelihood and impact of risks.

6. Consider the impact of others on your brand and reputation, as well as the impact of you organisation on their environment.

7. Build in security at the outset – the common guidelines about it being significantly more expensive to add controls after implementation still apply.

8. Be innovative, but don’t make unfounded assumptions. While you should not ignore your usual processes and controls, you should not be resigned to them.

3. Human resources

It is important to have the right people in place to take on the significant changes demanded by e-business [21]. Because of the fast change e-business related technology is going through, more is expected of employees than before, and today’s expectations won’t be the same tomorrow [3]. In this evolving economy, workers are constantly asked to update and expand their own skills sets, much as companies are shifting business processes to meet market demands. Cross-functional training and empowering employees are techniques that can be used to improve employee skills sets. Boomer [3] reports that 76% of IT professionals feel that e-business facilitates cross-functional work teams, which has a significant impact on employees’ workloads and the company culture. Cross-functionality also provides many employees exposure to new issues. The E-business Agenda survey conducted by Information Week and Business Week reported that 82% of IT professionals surveyed agree that growth and change are making more work for all employees, up from 77% 18 months ago. Employees have more tools at their disposal to help complete daily tasks. There are intranets to simplify internal issues, the Internet to do outside research, and word processing programmes that virtually write letters and reports on their own.

The survey conducted by Information Week and Business Week found that e-business is having a significant impact on most employees. 80% of surveyed companies said that employees are burdened by new skills requirements, 73% said that e-business has spurred additional employee training and 55% of respondents said that e-business has forced individual employees to take on more responsibilities. IT and business executives reported that e-business increases the need for technology
Setting up cross-functional groups is easy, getting them to operate smoothly is not; the challenges are enormous. Different members of a group may have conflicting ideas about how to code certain documents and regulate access to them via the company’s intranets or extranets. Resolving problems requires a common view of the organisation from the perspective of the customer base [6]. Fostering cross-cultural operations may require formation of a hybrid group in the IT department consisting of employees who have both technical expertise and business acumen. Each person should be aligned with various business functions such as fulfilment, supply chain, and finance and work with process advisors from those areas to help leverage technology to improve productivity. Today, cross fertilisation between business and IT is happening at the most senior levels. Historically this did not happen [6].

Because of its increasing pervasiveness, e-business may be affecting output per worker and employment in virtually every industry. E-business is leading to the automation of some job functions and replaces others with self-service operations, raising output per worker and dampening employment requirements in some occupations [10]. E-business which automates many administrative support functions or makes them self-service, is expected to have a dampening effect on employment in administrative support occupations such as secretaries, general office clerks, human resource assistants, order clerks, bookkeepers, accountants, auditing clerks and word processors and typists. The reason is that much of the information that administrative support workers collect, manipulate and distribute can be digitised and transmitted over networks. Self-service systems permit an organisation’s employees, customers, business partners and others to input and retrieve information from the organisation’s computers without involving administrative support workers. This means that fewer workers are needed to answer questions, look up or enter computerised information, make reservations, produce and process documents and prepare mailings [10].

E-business applications in Human Resources are rapidly progressing toward an electronic delivery concept sometimes referred to as eHR [11]. The eHR model takes advantage of IT technology as a catalyst to redesign processes, empower employees at all levels and develop HR strategies that favourably impact the bottom line of the organisation. Initially eHR starts with putting content, transactions and modelling tools on the web (intranet). Ultimately an eHR organisation functions in real time where interactions are completed online through an aggregated and personalised portal. In an eHR model, technology drives capabilities out to the end users, enabling them to make fact-based decisions. The technology also changes what is required of HR professionals and can support them in their new role.

4. Customer relationship management

The Internet has radically changed the notion of value as perceived by customers. Businesses have realised that today’s consumer requires convenience in the shopping process: they require personalisation, want competitive prices and expect speed in service. Each business needs to evaluate how it can deploy technology in order to tip the value equation in its favour [23].

E-business is having an impact on customer relationships on various levels. The concept of customer sovereignty and the absolute necessity of firms satisfying customer needs is becoming a reality and it is changing marketplace behaviour. Furthermore a breakdown in specialised economic role of producers and consumers is occurring. Additionally, a system is emerging in which firms and customers increasingly interact and participate together in the design and delivery of offerings. Finally, as a consequence of both the process of interactivity and the development of “smart” or information-intensive goods, successful companies treat consumers as individuals and not as parts of larger aggregates or segments. Customer relationship management, one-to-one marketing and valuing the customer as the “new asset” – as opposed to the product – are becoming paramount to the organisation in the growing Internet world [12]. Customer relationships are becoming a more important factor in differentiating one business from another. In order to stay competitive, companies with e-business initiatives in every industry have begun to analyse these relationships with customers. Customer relationship management enables an organisation to adopt a comprehensive view of its customer to maximise the customer’s relationship with the organisation and the customer’s value to the company.

While e-business is reshaping the corporate landscape, it is also changing customer behaviours and expectations. This is specifically relevant for organisations involved in B2C e-commerce because the Internet has created an extremely demanding and information-sensitive customer [19]. Never before have so many value alternatives been available with such a level of convenience [26] Organisations selling products or services online must be prepared to offer customers the best of both worlds: the ease of use of the Internet, combined with the high service levels they receive from brick-and-mortar retailers [9].

In a survey conducted by Information Week and Business Week, improving customer satisfaction ranked second only to creating a competitive edge as the best reason for an e-business initiative. Also, three out of four respondents said that as a result of their company’s e-business deployments, they are listening more closely to their customers [6]. Technology not only increases the
ability of customers to communicate with companies, but free up customer-oriented personnel for more intensive responsibilities. As companies interact with their clients through electronic means, salespeople have increased face time and improved relationships with customers because many administrative tasks such as checking the status of orders are done on the Internet. However, as companies move many of their operations to the Internet, customers have easier access and insight into their inner workings. That means it is incumbent on businesses to know what they’re doing. If fulfillment systems and procedures, for example aren’t integrated with online storefronts, customers will be able to see that from the Web.

E-commerce is changing the way companies and their customers interact with each other. Traditional distribution channels, especially in the business-to-business sector, are being challenged. The Internet allows manufacturers to sell directly to their end-users. Buyers and sellers who used to rely on brokers, dealers, wholesalers and field salespeople now deal directly with each other [22].

4.1. Efficient consumer response

Until now the efficient consumer response (ECR) strategy has stressed the need to increase the end-to-end efficiency of the value chain in order to meet consumer needs better and faster. It has emphasised the importance of new replenishment processes, such as continuous replenishment programme (CRP), cross-docking and direct store delivery, as well as the need to establish electronic communication links in order to support them. The e-business paradigm goes well beyond that, relying not on the mere existence of electronic links between companies, but on the integration of processes at an inter-organisational level. It requires that information should flow continuously across the value chain in both directions, so that demanding operations at the interface with the consumer, such as home delivery, personalised service, lower prices, etc. are met faster, better and at less cost. This need becomes even greater for traditional companies in the sector, which have to compete with new distribution channels as well as cope with new competitive structures and new dynamics in the value chain [19].

The Internet forces companies to work directly with suppliers and customers in order to respond rapidly and intelligently to change. In addition e-commerce forces streamlining of the physical supply chain. In order to deal with change, companies and autonomous business units need an effective business design that allows them to react rapidly and continuously, innovate ceaselessly, and take on new strategic imperatives faster and more comfortably. In striving to succeed in the digital economy and gain a market advantage, companies must exploit the potential of successful partner relationships [19].

5. IT department

E-business is fundamentally changing the way IT departments function resulting in a realignment of the department’s role within the business hierarchy [16]. This change is inevitable because the notion that e-business tools and concepts can be bolted onto current practices is a fallacy (Habershon in MacMillan 2000). IT and business must work together seamlessly, instantly updating inventory, processing complex orders and manufacturing on the fly. This represents a big change from the traditional manufacturing model.

e-business is placing increased pressure on IT by causing IT departments to reengineer and making greater demands on all workers in terms of job responsibilities and expanding skills [6]. As a result IT departments are hiring people with a mix of backgrounds and skills. Dalton [6] reports that regardless of industry, CIOs agree that achieving the right balance of skills in their departments is one of their toughest challenges. This is complicated by the fact that e-business increases the need for staff training.

Many IT managers have aspired to a greater role in the strategic business decisions of their organisations – and thanks to e-business they are getting that wish. Due to e-business IT is becoming more tightly associated with business decisions. This is different from the past, when IT was simply given a project and left on its own to deliver it. IT needs to be part of business strategy sessions, both in terms of where the Web can take a company and delivering what customers want. Technology managers are expected to be more aware of the alternatives and opportunities for change and to enlighten business people about what they see evolving. In a survey conducted jointly by Information Week and Business Week, more than 70% of the 250 IT managers surveyed say that e-business has thrust their departments into a business decision-making process, almost 60% say e-business has forced IT to lead business-process engineering, 61% say that e-business has forced the IT department to reengineer and 60% said e-business has significantly changed the role of the IT department [6].

The survey also reported that 58% of IT executives say their staffs feel more empowered to engender change in the organisation due to the increased involvement of IT in the business reengineering process. The bad news is that 60% of IT respondents say that the constant change wrought by e-business increases job stress. Jim Noble, global head of IT strategy at General Motors Corp reports (in Dalton 1999) “that a sense of urgency pervades our IT function. We have to think in much shorter time cycles because the business wouldn’t tolerate the latency we used to have.”

While offering many advantages, e-business is creating a lot of challenges for IT managers, relating mainly to internal change and increased workload. It is
also requiring IT managers to communicate more effectively with staff and with the business side.

6. Technology

E-business is causing a change in how companies think about technology. This change is inevitable as the notion that e-business tools and concepts can be bolted on to current practices is a fallacy [16]. IT and business must work seamlessly. No longer relegated to the back office, technology has become an integral part of e-business enabled business processes. Reengineering is a tall order in any company, but integrating business and technology functions is especially difficult.

In trying to bring about e-business transformation, companies have generally focused too much of their attention on technology. But systems do not work in a vacuum, and senior managers must recognise the complementary nature of technology, business processes and e-business readiness throughout the value chain. By taking a more holistic view, managers can turn those facets of a company’s operations into the drivers of e-business excellence.

Companies implementing an e-business initiative will have to replace or integrate formerly disparate systems and applications to improve decision-making capabilities and minimise redundant data entry and maintenance. Without seamless interfaces to administrative systems from Internet-based applications an e-business initiative will not succeed. As a result companies must address how e-business applications can be quickly be integrated with what already exists with minimal disruption to everyday operations and pre-existing investment [13]. It is critical to ensure that a company’s technology and infrastructure competencies are adequate to support the planned e-business initiatives [21].

In an e-business initiative, technology shouldn’t just be used to create the product. Technology must be used to innovate, entertain and enhance the entire experience surrounding the product, from selection and ordering to receiving and service [23].

7. Financial evaluation

According to Cohan [5] their research has found that large organisations are finding that traditional capital budgeting methods are difficult to apply to projects that employ Internet technology. E-commerce forces executives to adopt a non-traditional approach to measuring the payoff of a project. In traditional financial analysis, managers project the cash out- and inflows associated with projects. Discounting for the time value of money, managers calculate the net present value (NPV) of the project. If the NPV is positive, then managers should fund the project because it will generate value for the company in excess of the cost of the capital required to fund the project. If the NPV is negative managers should decline to fund the project because it will subtract from the company’s value.

If managers attempt to apply this traditional approach to analysing e-commerce projects they run into some practical difficulties. While the cash outflows associated with the project may be quantifiable, it is virtually impossible to estimate cash inflows that the project will generate. In the case of e-commerce for service provision, the future “cash inflows” are estimates of the number of people that will not need to be hired because the e-commerce application will perform a traditional process more efficiently. In the case of e-business for selling and distribution, the “cash inflows” may be measured in terms of the value of not falling behind competitors who are pursuing e-business initiatives. Because of these difficulties in estimating the cash inflows associated with e-business initiatives, Cohan [5] found that executives are developing new ways of measuring the payoff that leads to the decision whether or not to fund e-business initiatives.

Cohan’s [5] research found that many executives view the cash outflows of an e-commerce initiative to be relatively small. Executives in established companies appear comfortable spending a relatively small amount of money to learn and experiment. With the experimentation come ideas for modifications to the original e-commerce project. These modifications also cost a relatively small amount of money, and result in an ongoing cycle of modest spending that generates useful insights for how to improve the e-commerce application. So the financial evaluation of the cash outflows for an e-commerce project has evolved into a process of quantifying the costs of a sequence of small learning experiments.

Similarly, the financial evaluation of the cash inflows from an e-commerce site has evolved into a process of estimating the likelihood that using the Internet to solve specific operating or competitive challenges facing the company would ultimately translate into some form of quantifiable value at an undetermined point in the future. This is a far cry from the traditional process of estimating future cash inflows and discounting them back to the present using the appropriate annuity discount factor.

8. Change management

In the modern e-business environment traditional change efforts don’t work anymore. The speed of today’s business environment means that companies must replace sequential change processes with parallel processing. That is, organisations must create strategy, build business and technical architectures and develop new cultures, skills and measures simultaneously. Strategy requires experimentation rather than months of analysis [4].
9. Business environment

E-business is changing the business dynamic and at the same time the Internet changes the traditional landscape of the business environment from that of being a marketplace to one that is more of a marketspace. This marketspace is an information and communication-based electronic exchange environment occupied by sophisticated computer and telecommunication technologies and digitised offerings (Berkowitz in Singh). The impact of this digitisation is evident in the following changes:

- The content of the transaction is different – information about the product often replaces the product itself.
- The context of the transaction is different – and electronic screen replaces the face-to-face transaction.
- The enabling infrastructure of transactions is different – computers and communications infrastructure may replace typical physical resources especially if the offering lends itself to a digitised format.

In marketspace the constraints of time, place, and geographic boundaries are completely eliminated [23].

10. Function lines in company

According to Rosen [20] the creation and maintenance of an e-business initiative can defy traditional functional lines within an organisation. The sales, support, operations and information services operations are directly affected by the e-business initiative. The likely effect on these operations is:

- **Sales**: Orders can be processed directly by customers. Sales cycles shorten and the number of customer calls decrease and their nature change. Customers don’t require brochures, specifications and support sheets by mail since they can access this information from the company web site.
- **Customer support and product service**: Due to online shopping, the nature of questions will change. So will the access method, since customers will be asking questions through e-mail. Customers who shop online expect to be supported online. The support department needs staffing that can provide a quick response to e-mail questions.
- **Operations**: Traditional methods of ordering and fulfilling product orders will need to be integrated with new procedures developed to support the e-business.
- **Information technology**: Critical to the success of an e-commerce initiative is the integration of e-commerce with existing computers and the identification of new processes and services. Web servers and web-enabled applications will need to be developed and supported. The IT department needs to be involved from the beginning to identify technologies and then integrate current and future systems.

Online shopping and purchasing affect the workings of the sales, support, operations and IT departments. In most traditional organisations these functions work apart from each other. An effective e-commerce service is the intersection of these departments.

11. Trust

E-business requires a greater degree of trust between a business, its partners and customers than in the traditional business model. Many businesses are therefore reluctant to fully embrace e-business. They feel uncomfortable in this new environment, and are concerned that better safeguards are required to protect against emerging, unfamiliar risks [14]. Even firms currently participating in e-business exhibit a fundamental lack of trust in many e-business processes. They worry about the confidentiality and authenticity of transactions conducted online and they have serious concerns about the fate of personal and confidential information once it enters cyberspace. Despite the tremendous growth projections for e-business, its full potential will only materialise if business partners truly trust e-business transactions. Trust is a fundamental component of any e-business strategy. Among e-business partners, trust is the product of each organisation’s history, reputation, track record and patterns of behaviour [14]. Businesses that fail to assure third parties of the integrity, security and reliability of their operations run a very real risk of failure in their e-business initiatives. When deciding to embark on an e-business initiative it is therefore important for a company to address the trust and security issues in detail.

12. Service management

The concept of service management doesn’t necessarily change in the e-business environment. Rather, the fundamentals become more crucial than ever and should be expanded to include all facets of the organisation. According to Habershon (in MacMillan 2000, p.6) “service management really does underpin e-business”. E-business is forcing IT to stretch service management practices [16]. IT enabled service management (e-ITSM) should be based on processes that ensure the business runs successfully rather than on technical issues. What is different in an e-business environment is the scope of service management. To that end comprehensive risk and problem management should be conducted across the enterprise. e-ITSM should be equipped to handle quick changes and scalability issues. Service management must be uniform across all departments accessible through a common interface.
With respects to selecting service management tools, it is advisable to follow the best of breed approach.

13. Supply chain management

Integration of supply chain management (SCM) functions is emerging as one of the greatest challenges of companies embarking on e-business initiatives. SCM is the integration of business processes from end user through to original supplier. The goal of SCM is to create an end-to-end system that automates all the business processes between suppliers, distribution partners and trading partners. In an effective e-business initiative, the following SCM independent processes must be highly integrated: demand management, supply management and inbound/outbound logistics [1]. The digital economy has forever transformed the role of SCM. E-business and supply chains have merged, creating a network of immense opportunities. Supply chain structures have changed, and improving the performance of these supply chains is dependent on the use of e-business technology and innovation. Today’s supply chain management systems, relying on technological breakthroughs, will propel the 21st century organisation into the digital world, where it’s both a buyer’s and seller’s market. The companies who capitalise will have a dynamic, sophisticated supply chain aligned with their e-business strategy.

When implementing supply chain management, a company’s management team must:

- Recognise the benefits an organisation can experience by incorporating the Internet and other IT technologies into its supply chain operations.
- Recognise the benefits of effective supply chain activities in an e-business environment.
- Match the business changes resulting from the use of technology and the Internet to organisational practices that reflect each.
- Match the three areas of impact to the value each adds to an e-business’ supply chain.
- Identify the strategies for using technology to improve a supply chain’s effectiveness.
- Use technology to effectively influence customer demand and fulfilment within an organisation’s supply chain.
- Identify the strategies for effectively using technology to improve supply chain performance.
- Apply strategies to use technology within a supply chain to improve its performance in a given scenario.

14. Performance metrics

Although business fundamentals still exist and apply, companies that choose to change their business to utilise new technologies should be prepared for the fact that they will be judged and measured under a whole new set of rules. With technology and electronic transactions comes an expectation of immediate fulfilment. Managers, buyers and vendors believe that “all information is in the computer” and expect immediate status reports, reconciliations, etc. The electronic environment is real-time. Timeframes to produce and measure the success and failure of an E-business initiative are much shorter. E-business by nature is not entirely business as usual [15].

15. Conclusion

Incorporating electronic business in an organisation invariably has a significant impact on various operations and aspects of the organisation, causing changes in areas such as human resources, strategy planning, technological infrastructure and customer service. For a successful e-business implementation it is important that decision-makers understand the nature of these changes, their potential impact, plan for them and manage the change process in such as way as to ensure buy-in of all the relevant stakeholders. The decision to implement an e-business initiative should not be undertaken lightly and the benefits that can be gained from such a venture must be investigated thoroughly before deciding to go ahead. E-business plans must be devised as part of the corporate strategy and must take into consideration the impact e-business will have on processes, governance and people. It is important that companies create a single coherent plan, formalise decision-making procedures and communicate e-business initiatives across the organisation and integrate the e-business plan with corporate goals.

References


