



An Approach to eTransform Enterprises in Developing Countries (A Case Study of an Enterprise in the Ceramics Sector in Sri Lanka)

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Abstract

Developing countries differ from their affluent counterparts, the “developed”, in numerous ways. Infrastructure, cultural, social and regulatory differences are among the main factors. These differences or barriers tend to widen the digital divide. They stand in the way of the developing countries trying to achieve their goals towards a global economy by embracing eTechnologies. The feeble and many unsuccessful attempts to re-cycle the methodologies used by the developed countries, have left the developing high and dry. In formulating strategies for e-transformation of developing countries, the barriers specific to countries with lower GDPs have to be taken into serious consideration.

In this paper, an eTransformation model that is being successfully used with SMEs in Australia is being modified appropriately, proposed and applied as the approach for eTransformation for developing countries using a case study approach. The 7E's in eTransformation is a model developed by researchers at the University of Western Sydney. It is currently being used successfully with a group of companies in Western Sydney. The model incorporates new business thinking, business models in the new e-economy and addresses issues such as analysing the external environment in eTransforming, re-engineering business, business-IT alignment, and change management issues. A company in the ceramic manufacturing sector in Sri Lanka – is being used as the case study for eTransformation.

Key words: e-transformation, e-business, developing countries, 7Es in eTransformation

1. Introduction

The Internet has entered every sphere of human life. Business is included. E-Business and E-Commerce have revolutionized ‘buying’ and ‘selling’ throughout the world. Competition is now not among individuals but among nations. Information Communication Technologies (ICT) and the economy have become so heavily dependent on each other that it has become very necessary to re-evaluate our business and economic environment. Big and small, developed and developing, every nation faces stiff competition in the World Market, which is now a Virtual Market. The Virtual World, with its numbers of host companies offers serious challenges to SMEs (Small and Medium scale Enterprises) all over. Never before have businesses, especially SMEs faced such heavy open competition both global and internal. They are now driven to meet challenging demands from both customers and business partners.

The concept of a global village has revolutionised the traditional business scenario. To compete in this atmosphere and look for profit, success and sustainability, the use of Information Communication Technologies is imperative. ICT has risen to the fore as an effective strategic business tool to gain competitive advantage and remain solvent.

2. Benefits of eTransformation to Developing Nations

In order to exploit the global online market, there is no need to necessarily come up with a mega solution such as Amazon.com or eBay. Different business models and strategies combined with new thinking can do wonders to provide on-line services to millions of customers globally. Some benefits of eTransformation for developing countries are: business growth in the

global market, building strategic alliances/partnerships, economic growth by revenue generation, strengthening the SMEs, infrastructure development, employment generation, improving accessibility to the world market, etc. In an essence, eTransformation has the trickle down effect, which could be seen running across industries, ultimately bringing improvement to the quality of life of the people.

3. Problems faced by Developing Countries

The Net is capable of generating higher incomes and higher standards of living. However, multinational companies invest only where communications infrastructure is reliable. As a result the digital divide keeps growing, driving the less fortunate even further from their goals. Already this divide includes a larger part of the population, especially in developing countries. Therefore, E-Commerce may become a trade barrier for those not connected.

The following statement made by the UN ICT Task Force, Geneva node, can be used more aptly to describe at the root level, the digital divide between the developing and developed countries with regard to economic and social betterment.

“Today, less than 15 years after the fall of the Berlin Wall, a new divide is appearing in Europe, the divide between those who have access to information and communication technology and those who have not. This 'Digital Wall' is beginning to separate countries, regions, cities and people in terms of economic and social development.”

Furthermore, in developing countries a majority of business happens to be SMEs. They dominate the economy of the country. There is huge potential for these enterprises to grow and shown the proper way, reach the global market. They can sell their products in international markets; become sub contractors to the market giants etc. The opportunities are unlimited, if they are shown the way to tap their resources.

A survey of SMEs in the APEC region finds legal and liability concerns ranking right behind a lack of market demand and security concerns. These issues are considered the topmost barriers to the development of e-commerce and are seen more among the lower-GDP economies as against the higher GDP economies[4]. To eradicate these barriers it is necessary to improve telecommunication infrastructure, reduce legal barriers, and increase business access to the Internet in order to boost the use of e-commerce by SMEs[4].

Against this general background, it is not surprising that many enterprises in developing countries are still sceptical about the wider use of ICT

and e-business. It is observed that SMEs need a better understanding of the opportunities e-commerce provides for their businesses. The cost of accessing the e-market is high and one is not assured of benefits.

All these arguments contribute to explain why eTransformation of SMEs in developing countries is not simply re-cycling strategies, methodologies and products that work in the affluent, developed world. New models and methodologies have to be designed for the E-Transformation of SMEs in the developing regions keeping in mind the barriers and constraints mentioned above. Some barriers for eCommerce development among the developed and developing are illustrated in the following table.

Developed Countries	Developing Countries
<ul style="list-style-type: none"> • Infrastructure- Reliable, adequate (Electricity, Telecomm., ICT) • Economy Financially stable • Social & Cultural High digital literacy English used as the medium for global business • Business culture- Virtual trading Highly developed related and supporting industries • Regulatory Proper government industrial policies, internet policies, laws and legislations, national information policies 	<p>Inadequate Infrastructure</p> <p>Unstable, lacking financial resources</p> <p>Relatively low or poor literacy, English language barrier</p> <p>Face to face trading Relatively poor development</p> <p>Policies non-existent or not adequate</p>

Table 1 Comparison of Social and Cultural Differences between Developed and Developing Countries - Barriers for e-commerce Development

The table illustrates the differences pertaining to developing countries in general. The resources, facilities, and other factors which are taken for granted in developed countries, are either lacking or do not exist in developing countries.

4. A Successful Approach to eTransformation

An extensive study of existing eTransformation methodologies was carried out by the researchers at the University of Western Sydney, Australia[6]. Due to lack of a complete model which looks at all important

aspects of eTransforming, a model, namely, Seven E's in eTransformation[6] was developed. The 7E model has been applied successfully to transform enterprises, in Western Sydney, Australia,[13] in the context of developed countries.

This paper makes an attempt to modify the 7E model, which has been successfully tested with enterprises in developed countries to suit the conditions in developing countries. To test the approach, Sri Lanka- a developing country in Asia is chosen. It is opportune as Sri Lanka is trying to re-gain itself and there is tremendous interest shown towards IT and ICT. This study applies the 7E model to an enterprise in the ceramic manufacturing industry in Sri Lanka.

The environment the SMEs work is changing constantly. Analysing the environment and the global IT/business trends are crucial for strategic e-transformation to find out the best opportunities for the SMEs to invest in.

The Seven E model commences the process by analysing the external environment and deciding on broader eBusiness goals and strategies for the selected sector. Priority is also given to checking the e-readiness of the sector before proceeding with the transformation. The Roadmap for eTransformation and a methodology successfully used with the SMEs in Western Sydney are used as the vehicle for eTransformation of the selected enterprise dealing with the ceramic industry in Sri Lanka. High priority is also given to eSystems, support services and change management issues making sure that the transformation is carried out successfully.

5. The Seven Es In eTransformation and its Applicability to Developing Countries

This model consists of seven very important aspects of eTransformation. Each stage is important in its own right and forms a part of the whole process. The seven stages, where six stages could be achieved one after the other are linked to the stage 'Evolution'. This deals with the crucial issues related to change management (Figure 1). After each stage, the organization can go through the changes to the evolution stage and through that, go to the next stage, after the required evolutionary changes are made.

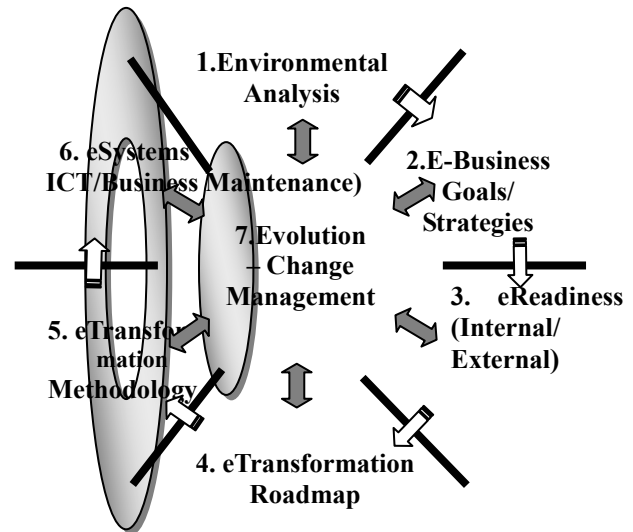


Figure 1. The Seven Es in E- Transformation [6]

Since 1999, the researchers at the University of Western Sydney has been conducting a research project in eTransforming Western Sydney. Since the Seven E model is being used in a different context, for enterprises in a developing country, the need for modifying the methodologies used within each stage is looked at carefully. The methodologies used within each stage is briefly illustrated below (Table 2).

Stage	Significance	Methodology used	Strengths	Weaknesses
1. Environmental Analysis	To understand the Global IT and Business Trends and the Sector's Strategic Situation	Understanding of Global Trends in Business and IT SWOT Analysis Industry Analysis (Porter's Forces)	* Cheap abundant labour * Developed countries' willingness to invest on ICT in developing countries * Strong manufacturing sectors	* Infrastructure limitations * Telecommunications and Access * Legal framework for eCommerce
2. eBusiness goals and Strategies	Develop eBusiness goals and strategies to gain competitive advantage	Develop eBusiness, Strategies & Adopt eBusiness Models	* Many businesses having a stable buyer market in developed countries * Educated literate management workforce	* Awareness in eBusiness in industries * Funding needs * Digital divide (within/ across country)
3. eReadiness	E-Readiness of the industry and the enterprise under consideration	Questionnaires to measure eReadiness of the Internal and External entities	Opportunities	Threats
4. eTransformation Roadmap	To develop a specific path to proceed for the organisation	eTransformation Roadmap and the Convergence Model	* No geographical boundaries in eMarketplace * Apply new e-business models - bundling/ unbundling of services * Direct-to-customer/ market approach * Exporting IT-based services	* Difficulty in competing in the already established e-marketplaces * Language barrier to provide services * The need to be physically close the real market (for shipping)
5. eTrans. Methodology	eTransform the organization in an incremental way	The Evolutionary eTransformation methodology	* E-Portals for SMEs in manufacturing * Income/ Employment generation * Incubators/Tele-centres * E-Learning Opportunities * Attracting ICT products/ services based investments from industry giants * Improve accessibility * Overall economic growth * Improve Infrastructure * Open-source software giving a less costly start to offering IT services * Access to global economy	* Speedy development of ICT/services * Telecom. access within countries creating bottlenecks * Political problems in developing countries limiting growth * Convincing the buyers of the quality of products/services * Ineffective implementation of Government Policies/regulations
6. E-Systems	Provide support and maintenance of the implemented systems	Develop IT Policies, Security, Support, Maintenance mechanisms		
7. Evolution – Change Mngmnt.	Management of the proposed changes in an evolutionary manner	McKensey's 7S Model for Organisational Change		

Table 2: Stages in the 7Es Model: Modified to suit Enterprises in Developing Countries

The model incorporates new business thinking, business models in the new eEconomy and addresses issues such as analysing the external environment in eTransforming and re-engineering business, Business-IT alignment, implementing and managing systems, restructuring, change management, e-systems maintenance and policy issues. The model can be used to successfully eTransform an organisation, a cluster of enterprises or an industry to achieve profitability in eBusiness.

5.1 eTransformation related Issues in Developing countries

First, we need to understand the different conditions under which developing countries operate. In order to compare how conditions differ from those of the developed countries we carried out an eBusiness related SWOT Analysis for developing Countries[Table 3].

Table 3: E-Business related SWOT Analysis for Developing Countries

The above SWOT analysis (Table 3) shows that there is a lot of potential for enterprises to benefit from eTransformation. It also shows the major barriers and threats faced by enterprises in developing countries. One outcome of the analysis is that it reflects that issues to be addressed in four levels. They are:

- Issues at Organisational Level
- Issues at an Industry Level
- Issues at a National Level
- Issues at a Global Level

Issues to be addressed at organisational level are internal transformation issues such as infrastructure, business processes, management support, staff and skills development, etc. At an industry level, the issues

are, formation of strategic partnerships, quality of products/services offered, infrastructure related issues, creation of awareness in eBusiness, etc. At a national level, the government support for infrastructure development, tax incentives and for the implementation of government policies and regulations are essential. At a global scale, the issues and concerns are for international funding, international partnerships for infrastructure development, usage of Online and offline marketing strategies and web based strategies [12].

5.2 The Applicability of the 7E Model to Enterprises in Developing countries

When applying the 7E Model, the conditions of the environment are automatically studied (in stage1) and incorporated in to the development of strategies (in stage2). It is important to study the external environment as well as the internal environment for each stage. The following section describes the modifications needed at each stage of the model:

Stage 1 : Study the external environment in a detailed manner eg: carry out a SWOT analysis for the industry or the country depending on the application. The 7E Model already does an extensive analysis at this stage which could be extended to look at the environment in a global context.

Stage2 : Development of strategies at a national level to deal with funding, infrastructure and other needs. It has to be taken as a national initiative more than a mere company transformation.

Stage 3: Emphasis should be given to the eReadiness of the country, industry and the external entities with which the company interacts with.

Stage 4: The roadmap is applicable to any organization or a cluster or organizations as it uses a step by step incremental approach to reach the eTransformed state.

Stage 5: The evolutionary nature of the methodology uses an incremental approach to eTransformation which suits the conditions of the enterprises in developing countries.

Stage 6: The systems in the original version of the 7E model mainly concentrates on the internal systems. When it is being applied to developing countries, the knowledge gained about the external environment in other stages have to be applied to deal with lack of infrastructure and support services.

Stage 7: The flexibility this stage gives to all other stages is the key to organisational success in dealing

with difficult environmental conditions. Depending on the changing internal/external conditions, the flexibility is given for companies to adapt to the changes in strategy, structure, systems, skills, staff, style and shared values.

In essence, the 7E model can be applied successfully to enterprises in developing countries with the model expanding to concentrate on the external environment at each stage for analysing and developing strategies. The application of the model to an enterprise in the Ceramics sector is described in the following section as a case study.

6. The Ceramic Industry in Sri Lanka

Porcelain production is a sector that flourishes in Sri Lanka. These products have carved a niche for themselves in the market with high quality at relatively low cost. A key factor to the success of the ceramic industry in Sri Lanka is due to the fact that about two-thirds of the raw materials needed are produced locally. With a vital cutting edge of impeccable quality, competitive pricing, unique creativity and a keen market driven sensitivity to modern trends and needs, Sri Lanka competes effectively with the world markets with ceramic front-runners such as Italy, Spain, China, and Indonesia. Key markets have opened up for Sri Lanka ceramics in USA, Australia, the Maldives.

The trend in ceramic industry is now for cheaper, colourful and casual tableware. This change of trend has affected the manufacturers. The product lifecycle for new shape and design has decreased and the manufacturers are forced to bring out new products on a regular basis in order to maintain the market share. The industry faces numerous constraints, including a lack of preparedness for use of advanced technology and expanded markets.

This paper uses a case study of an enterprise in the Ceramics industry using the 7E model to eTransform in order to gain the competitive advantage. The following section describes the application of the seven stages to the selected manufacturing organisation.

7. eTransforming the Selected Enterprise

We selected an enterprise in a developing country, Sri Lanka, to eTransform and the 7E Model is used as the model taking the company through the eTransformation process.

The company studied has been in the ceramic manufacturing business for more than a decade and now boasts about an employee strength of 600. It

exports 90% of their produce to 20 countries including France, Germany, Spain, USA, Italy, Portugal and Japan. It produces 500,000 pieces (equivalent to about 1,500 tonnes) of porcelain tableware every month.. The company is currently at peak capacity and also enjoys a growing market. Due to the high quality of the product and excellent customer service the demand for the product has grown to such an extent that the company cannot fulfil all orders that are received. As a result an expansion programme is now being planned.

7.1 Stage 1: The Environmental Analysis

The Sri Lankan Ceramics industry consists of about 40 ceramic export companies in operation including SMEs. They export ornamental ware, tableware, wall/floor tiles and sanitar ware. Sri Lanka’s global market share is about 1%. This industry employs 22,000 individuals in the above segments of the industry [7].

In the UNCTAD report on E-Commerce and Development, it is stated that in the Asia and the Pacific regions, the manufacturing sector is exposed to pressure from customers in the developed countries to adopt eBusiness methods. It also emphasises on the value of eBusiness for intra-regional and global trade.

Michael Porter’s Five Forces analysis (bargaining power of buyers, bargaining power of suppliers, threat of new entrants, threat of substitutes, rivalry among competitors) is being done in order to find out the competitive forces working on the industry. Depending on the forces, the adoption of strategies can be selected.

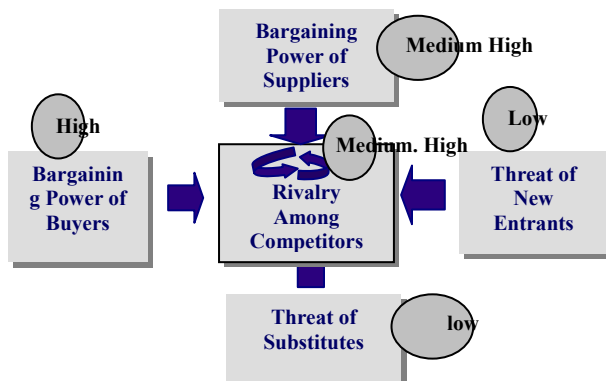


Figure 2: Applying Michael Porter’s Five Forces Model to the Ceramic Industry

Micheal Porter’s Strategic Forces show that the highest threat is from the buyers as they keep looking for cheaper, colourful and casual tableware rather than the formal elegant tableware, which used to be popular. This change of trend has affected the manufacturers.

The product lifecycle for new shape, design has decreased and the manufacturers are forced to bring out new products on a regular basis in order to maintain the market share. Furthermore, the profit margins have also come down and all manufacturers are now looking at producing at the lowest possible cost. The other major force is the bargaining power of suppliers of fuel and the few expensive raw materials that have to be imported. This has a direct impact on the product life cycle, the production planning and the cost of the products.

Table 4 illustrates the SWOT analysis we carried out for the ceramics company.

Strengths	Weaknesses
Industry knowledge of CEO Manufacturing flexibility Company culture-best practices Innovation and creativity Customer base – Client pedigree Industry reputation Solution provider – design capability Low Fixed Costs Global customer relationship Good manufacturing technology	Web not used for competitive advantage Manual quality systems Lack of sales& marketing strategies IT is not used as a strategic tool Access to funding for growth Relative low wages Limited skilled staff
Opportunities	Threats
Increasing global market Closure of factories in the developed countries in the industry Access to modern technology Possibility of acquisition New product/market development Develop product range to a niche market Alliance with giants in the industry E-Business opportunities Expansion of customer base	Raw Material (Oil /Gas price) increases Market intelligence (Customer/competitor) Strong competition with cheap products Changing lifestyles No direct link to end-user No segmented marketing strategy

Table 4: The SWOT Analysis - for the ceramic company

7.2 Stage 2: eBusiness Goals and Strategies

The SWOT Analysis (Tables 3 & 4) gives the overall strategic situation of the companies in most developing countries in the Asian and Pacific regions. According to the research carried out by us, it shows that, in order to take advantage of the opportunities, the sector has to come up with eMarket strategies and link them to

eBusiness Models. For the whole industry to develop, we have to concentrate on funding, partnerships, infrastructure development, government support, legal framework, creating awareness, marketing strategies, etc.

eMarket Strategies: The industry sectors are changing the way they do business by using many different collaborations with customers (B2C), service providers (B2B), funding organizations (ePayments), government (B2G), and even competitors (B2B). The linear model of supplier-manufacturer-distributor-customer in the old economy is changing to adopt different e-business models [10] such as e-portals, Supply Chain Model, Full Service Provider Model, in the e-economy.

The information collected through interviews and questionnaires, reveals that, the goals of the ceramic company to e-transform are to increase the market share, to increase the quality of customer service, eliminate bottlenecks & reduce costs, to improve on supplier relationship management and to gain competitive advantage.

The best eBusiness strategies for this company after considering Porter's forces and the above goals are product differentiation, supply chain management, customer relationship management, marketing of products and strategic partnerships for joint ventures. The most suitable e-business model would be the Supply Chain eBusiness Model which creates a virtual value chain and an information flow across the supply chain. All parties have a strong electronic bond and backend systems and the manufacturers have access to information about the suppliers up to the level of the customers which is very effective in order processing, product tracking and SCM issues. It is a necessity to use effective Customer Relationship Management techniques to improve the quality of service to the customers.

- Supply chain E-Business Model (Horizontal Marketplace):

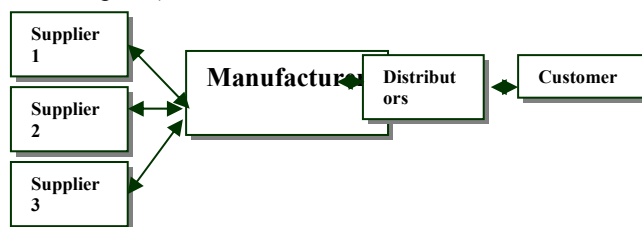


Figure 3: Supply Chain E-Business Model

Depending on the market dynamics and the competitive forces working on the industry, combinations of e-business models can be selected for implementation.

7.3 Stage 3: eReadiness

Seven important aspects need to be analysed in relation to the e-readiness of the organizations in the sector and the expected users of the web based system. They are Business Processes, Applications & Infrastructure, Web Presence, Skills, Top Management Commitment, External Connectivity and Future Directions. A questionnaire was given to the company. The results of the survey is presented below.

- Business Processes - Well Defined
- Applications & Infrastructure - Insufficient Resources
- Web presence - Presence does not serve the purpose
- Skills of Employees - Has a shortage of IT staff
- Top management commitment - Committed to productivity and excellence
- External connectivity - Main mode of communication is Fax and telephone
- Future directions - Directed towards usage of eBusiness Systems for buyer interactions, marketing, supplier related interactions and exploring business opportunities.

The support given by the ISPs (Internet Service Providers) along with their reliability and quality is also crucial for the successful implementation of the web-based systems. The bandwidth, web based services, dynamic content, ability to host databases, file transfer mechanisms, fees for hosting are some important aspects to be considered in making the decision to select the right service provider.

7.4 Stage 4: eTransformation Roadmap

After going through the first 3 stages, the company is fully aware of its strategic position, competitive advantage is and its readiness to e-transform. What it needs is a clear path to follow. The road map assesses the current status of the company and shows the direction to proceed.

The E-Transformation Roadmap [1] developed by the researchers at the University of Western Sydney, is the guideline used for successful e-transformation of many enterprises in the Western Sydney region (Figure 4).

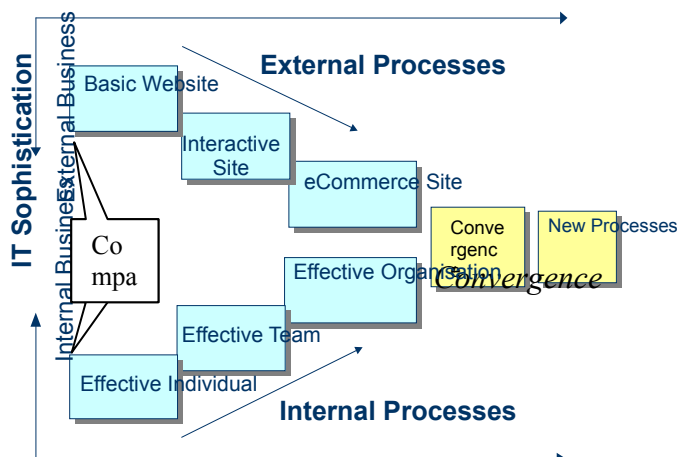


Figure 4 : E-Transformation Roadmap [1]

The final goal of eTransformation roadmap [figure 4] is to achieve the level of convergence. The convergence level is where all the information related to the business processes in an organisation (such as the information for marketing, sales, financial, production, etc.) are linked to a corporate data repository. The interactions with the external community such as the buyers, suppliers and other partners are through the integrated corporate data repository.

The ceramic company is currently in a very early stage of the eTransformation process. It has a very basic static website with the company profile. It would be advantageous for the company to start with a major improvement to the web based system expanding it to be used as a tool to gain competitiveness. This can be done in three phases.

Phase 1: Use of the Web presence as a Marketing Tool:

Building an attractive web based system and using the tested, proven online/offline methodologies could be used to effectively market the company and its products in the global market.

Phase 2: Include the Interactive Web Features:

To link with suppliers and/or customers depending on which link gives more benefits. Since many buyers are moving into newer designs, shorter production cycles and smaller quantities, the web can be used very effectively to give all the crucial information the buyers need to make quick and correct decisions.

The solution of this phase would be an eye-catching website with the following features: Company profile, Competitive advantage of the company, eCatalogue of the products with pictures, Site map/content information/search facilities,

Company policies, Customer specific information and security policies, Online ordering/shopping cart, News/FAQs, Forms, Production capabilities/customers, Special login for existing customers, etc.

Phase 3: Payments:

This will need to incorporate the ePayments systems thereby looking at security aspects and payment standards as well. In order to implement the above system successfully, the company has to think of internal process transformations such as incorporating the usage of a web based system, e-mail communications, effective team work using ICT.

7.5 Stage 5: eTransformation Methodology

At this stage, there are 2 paths to take, namely internal process transformation and/or external process transformation. The relevant approach for this company immediately is the external path as the company can effectively use the web based system to be used as a business tool to create awareness and to strengthen the relationships with the customers. The following methodology could be adopted.

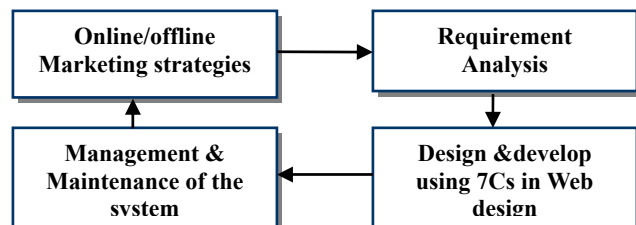


Figure 5: Adapted from the eTransformation Methodology [6]

The requirement analysis identifies the purpose of the website, the target audience, the need for interaction and its main functionality. The Design and Development stage identifies the web design aspect using the 7Cs in web design introduced by Rayport[9] It focuses on context, content, customisation, connectivity, communications, connection and commerce to deal with traditional customers, cyber customers and hybrid customers effectively. As these strategies are mainly for SMEs and SMEs do not have highly skilled IT staff to manage, maintain and update the web based systems, the designed system has to incorporate content management features as well.

Other aspects to be considered are updating frequency, automating to ensure responsibility, security and password protection, load balancing back up, etc. After all the arrangements are made for self-manageable websites, the marketing aspect has to

be looked into. Many online and offline marketing strategies such as business cards, including magazines, news letters, and search engines, banner advertisements, virtual marketing etc could be used to promote the web based system.

7.6 Stage 6: eSystems

After the Business Process Re-engineering, there will be a proposed organization-wide web based 'Business and IT' integrated system. They need to be supported by IT policies, management /operational controls & security measures, systems, etc.

Some management controls will incorporate standard guidelines to the users, procedures and manuals for the new system. Security measures are taken to deal with common threats such as sabotage, hacking, privacy problems, etc. Preparing for contingencies and disaster recovery are also done at this stage.

Since proposed strategies for the ceramic company would be the proper backup strategies, security measures, password protection, it has to be assured that the ISP or the computer vendors provide the proper trouble shooting and maintenance support to the company.

7.7 Stage 7: Evolution

This stage runs across all stages linking them to each other and implementing the Strategic, Managerial and Operational changes.

The model used to deal with the strategic, operational and other changes is the well accepted 7S model developed by McKinsey and Company over 20 years ago. The following issues were addressed with respect to the ceramic company. Shared values, Strategy, Systems, Structure, Skills, Staff and Style.

The ceramic company has to focus mainly on infrastructure development, structural changes and IT skills development of their staff. The best approach is to start staff training on Internet based basic skills such as web browsing, e-mailing, etc, and get the staff used to the idea of dealing with customers over the net.

It is very important for the enterprises in developing countries to focus on change management issues as they need to focus on the development of infrastructure, staff, skills, systems, funding and web based systems development more than SMEs in developed countries.

The issues addressed are as follows:

- Shared values: The Ceramic Company must ensure that the changes the company is going are

reflected properly in their value systems, their vision, mission and the organizational culture.

- Strategy: The strategies proposed were at the business level and the company has to break them down into management strategies and operational strategies for the company to successfully implement them.
- Systems: The systems are going to be changed tremendously due to the introduction of web based systems. The business process flow, the ordering systems, the storing systems, the response times, etc. will be changed and the thinking of the people and the business operations also need to change accordingly.
- Structure: The organization structure also needs to change from a rigid hierarchical structure to a more flexible network structure. It may be very difficult to change the structure, but, an effort needs to be taken to make the structure flexible enough to incorporate all the changes to the systems.
- Staff and Skills: This is a major area to concentrate on from the beginning as SMEs in developing countries lack IT staff and IT related skills as mentioned by the Ceramic company dealt with. They also require to train internal staff than to hire IT personnel externally as it is very costly for the company compared to their size.
- Style : IT is very important to have a non-authoritative management style as the company is going through a major change and needs the support of all levels of staff to work as a team to achieve a common goal of eTransforming the organisation.

8. Lessons Learnt

The application of the 7E model to the Ceramic manufacturing sector in Sri Lanka revealed a wealth of information. It reconfirmed the fact that eTransformation is a step by step evolutionary process for any enterprise depending on its e readiness. The study revealed that in order for an enterprise to get the fullest advantage of eTransformation, certain issues need to be addressed at the industry, and national level.

For the Ceramic Company studied, dealing with proper change management procedures was found to be an important aspect for the successful implementation of an eBusiness solution.

9. Conclusion

As the UNDP Human Development Report has described, people all over the world have high hopes that new technologies will lead to healthier lives, greater social freedoms, increased knowledge and more productive livelihoods [11]. eBusiness is a powerful tool, especially for developing countries, which will take advantage of the human capital intensive services and offer major opportunities to be competitive in a market dominated by developed countries. With the availability of the public network, open source software, e-business models, business process outsourcing as strategies, effective eTransformation, management of the eTransforming project is an important factor.

This paper shows that eTransformation models designed for the developed countries can be used for developing countries, but with modifications to incorporate the issues and problems specific to enterprises in developing countries. These issues should be addressed at four levels, namely, organisational, industry, national and global.

The 7E model shows a stage by stage process for enterprises to transform themselves by looking at the environmental factors and their own capabilities. The model also incorporates business strategies and eBusiness models to add a new dimension to the business to get competitive advantage in the eMarket. The 7E model gives the enterprises in any country enough flexibility and support to progress on their own pace to achieve success through eTransformation.

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