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Information and Communications Technology In Teaching Marketing: Benefits and Problems

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Abstract

The advent of a continuous innovation and improvement, particularly in respect of information and communications technology has had a huge impact on the quality of life and in education delivery is an open secret. The benefits from exploiting ICT in education are ernomous but there are abuses that have tarnished its use in education. The excellence ICT is attributed with has been put to the sword and will stretch this innovation to develop tools for redressing these predicaments. ICT is with us from the cradle to the grave. This research reviewed published information and confirmed the overwhelming importance of information technology in marketing education. ICT has revolutionalised learning by enabling easy access to information through online materials and learning has become more convenient as students can combine work and online learning to good effect. However, academics and students have found it easier to access materials and often fail to acknowledge the source thus distorting the originality of the source. Where the systems for guarding against plagiarism are not thorough there is widespread abuse of the learning process. The paper recommends stringent systems for checking against plagiarism and that work submitted should be current if not live so as to avoid students duplicating work from elsewhere and appropriate punishment meted. At the same time there is software for detecting cheating in education which has gone some way in detecting the culprits and that had had a significant effect in reducing the proliferation of education malpractices.

Keywords: Marketing, Education, Internet, Information Technological

1. Introduction

Facets of modern day life continue to transform, largely because of the advancements in the area of Information Communications and Technology (ICT). Mankind has managed to replace the bulk of operations in daily life and in the corporate world with programmed automated ICT based self directed systems. This paradigm shift has put ICT at the heart of human functionalities in virtually every sphere of operation as in manufacturing, medicine, media production and broadcasting, transport, warfare, research, communication, education, etc. Close et al (2005: p81) emphatically state:

Just as the business world is in a constant state of flux and evolution, so is the technologically advancing in which academics operate. The "4Ps" (and C's) of marketing cannot be conceptualized without consideration of technological implications. … The internet rounds out a marketing education, as it is both a class-based exercise tool and an analytical problem solving tool.

Kaynama and Keesling (2000) point out that the use of the internet in marketing practice and education is increasing exponentially and would affect the mode of delivery and role of marketing educators. Writing for the Guardian newspaper in the United Kingdom Geraldine Kenney-Wallace the director of e-strategy and learning at City & Guilds states that over 65% of e-learners in employment or out of employment are motivated by prospects for career progression, or getting into employment and that each e-learner would prefer learning systems that are user-friendly, mutual interaction with other e-learners, and support from online materials (http://www.guardian.co.uk/Archive/Article/

0,4273,4394262,00.html, accessed 16.07.07). The Sloan consortium estimated that in 2005 there were over 2.3 million online learners taking at least one course with 40% of schools with master's courses offering them online. The Sloan consortium further states that:

"Thus, a very rough estimate of the total reachable population for online education is about 100–120 million. For a current online U.S. learning population of nearly 2.5 million to reach 100 million at a component annual growth rate (CAGR) of 20%, would require over 20 years. Assuming a CAGR of 40%, this level could be achieved in under 12 years." http://www.sloan-c.org/publications/JALN/v10n3/v10n3_1bourne.asp, accessed 20.07.07

Naude and Holland (2004; p165) suggest that ICT "…effects on marketing are not only potentially dramatic and/or catastrophic to managers, they are indeed reliant on understanding and knowing about new concepts and skills". They further argue that the idea of a changing world is not a new phenomenon but the challenge is to understand the direction of change and determine the nature and importance of the variables in influencing and how they are influenced by the change. Roffe (1997) argues that the search for new student groups and new products has meant that innovation has become a familiar mission for the educational entrepreneur. Burd and Buchnanan (2004) point out that online learning opportunities are abundant within the framework of post-secondary education and as part of continuing education offered through professional associations. Ueltschy (2001) maintains that the use of technology in the classroom is now an expectation for the student given that children of today face an interactive, communications intensive and knowledge based environment and that has led to increasing changes in education. The ICT revolution is so powerful to the extend that its transforming the way businesses use marketing, the way marketing students learn marketing and such students often understand technologies better than their professor, hence the need for professors to adapt such technologies (McCorke et al, 2001).

The paper acknowledges the enormous contributions made by ICT to the field of education and learning on one hand and the challenges that it poses when used abused by the learners or academics. The growth in online learning bears testimony to its efficacy in providing access to education.

1.1 Objectives

This paper seeks to critically argue the phenomenon of ICT applications in teaching. The issues put forward are meant to take into account the effects of the revolution on the modern day teacher and the modern day student. It seeks to question their efficacy in the quest for a better quality of life and the degree to which they make education the most valued human investment for a better world. In the main the specific objectives to be achieved in this paper are:

a) To provide a comprehensive ICT literature review so as to develop a framework for analysis

b) To capture the benefits of ICT applications in the teaching of marketing for both staff and students.

c) To determine the adverse impact of ICT in the teaching of marketing.

d) To recommend approaches that could enhance the usage of ICT in the teaching of marketing

2. Concepts of ICT and Applications in Education

A comprehensive definition for ICT provided by on the website: http://searchwebservices.techtarget. com/gDefinition/0, 294236,sid26_gci928405, 00, accessed 27 April 2005:

ICT (information and communications technology - or technologies) is an umbrella term that includes any communication device or application, encompassing: radio, television, cellular phones, computer and network hardware and software, satellite systems and so on, as well as the various services and applications associated with them, such as videoconferencing and distance learning

The above definition shows that ICT is diverse in nature as it includes multitudes of tools and processes needed to execute the information management function. In business and in education it is extremely important to consider the objective and the efficacy of the tools employed.

Dixon et al (2005) demonstrate the key forces at play that drive competition and put information and communications technology at the heart of it. To the extent that their model acknowledges the critical impact of information and communications technology, there is no doubt that education should take this phenomenon on board. The Internet in particular has become a way of life and it is expected that education institutions and businesses integrate it into their systems for effective management of information.

Ayres (1999) argues that the internet will give people access to vast amounts of information and that economic success in future will depend on the information workers and this belief has led to vast investments in education, governments, industry and commerce. He questions the authenticity of the internet as there is no cross-checking of the accuracy of information posted on the internet. Kospoulos (1998) points out that education and culture are the intellectual treasure of any individual and the cyber-campus has created a resource beyond reasonable comprehension. This phenomenon follows technological advancement as the human being makes an effort to remain contemporary in the face of the changing world.

The website http://www.tutor2u.net/business/ict/intro_what_is_ict.htm,accessed 12.05.05 defines ICT as:

ICT covers any product that will store, retrieve, manipulate, transmit or receive information electronically in a digital form. For example, personal computers, digital television, email, robots.

From the above it is clear that ICT is focused on information gathering, processing and storage with the aid of technology. The computer, more specifically the computer chip is the heart of the computing phenomena. The ability to reduce information to the binary system, keep it in a compact form and still be able to access, disseminate, analyze it

electronically is phenomenal. This has meant that the processing of information is very fast. The fact that multitudes of activities are now ICT driven suggests that society in general and business in particular find ICT useful in operationalising activities, no surprise education has joined the bandwagon.

Bates (1997) puts forward four reasons for using ICT in education as:

(1) Improving the quality of learning

(2) Improving access to education and training

(3) Reducing the costs of education

(4) Improving the cost effectiveness of education

Bates seems not to acknowledge the obvious; that ICT is fashionable across the plethora of human engagements and it has spilled into the education arena. His arguments are consistent with what can be observed in education. Material production and dissemination has meant that learners gain more value from the delivery by teachers because of the capturing capacity and accuracy- virtual illustrations that can be printed in hard copy and simulations can be employed to resemble real operations. Distance education like in the case of the Open University in the UK tends to make use of broadcasting and the internet. Previously such provisions would necessitate the transportation of mountains of information at a substantial cost whereas for now its simply the stroke of a key that would enable all students to access the material. It is clear that with the various cost reductions in delivery the overall cost of accessing education has been reduced. Overall, one would argue that learners are getting value for money in education largely because of the advent of ICT. Benbunan-Fich et al (2001) points out that technologies are radically changing the four elements of the marketing mix and the advanced software and internet technologies have created for one-to-one marketing which help customise messages; to that end they further assert that, in a study by faculty at Seton Hall University there are five competencies that students require which are communication, critical thinking, technology, teamwork and change management.

The challenge for digitalising various spheres of life has brought pressure to the education arena. Osborne and Oberski (2004) state

As society demands that universities provide mass education systems for their citizens while at the same time reducing the amount of funding to these institutions, it is not surprising that technology is being seen as providing the solution.

Alexander (2001) argues that investment in ICT is a solution to a crisis in education. It is important to reflect on the common cliché that necessity is the mother of invention and no surprise everyone is in transition, the education facilitator, the learner and the investor in learning and development. Such is the pull of ICT that literacy in computing is now the rule and not the exception in the developed world. The developing world is grappling with its usual problems trying to somewhat move in the right direction.

Appleton (2005) in a paper on the ICT transformation of Edge Hill College argues that "The development of hybrid libraries has had an impact on electronic publishing and has generated new types of electronic resource, including e-books". This demonstrates the range of challenges and options that come with ICT. Abouchedid and Eid (2004) point out that e-learning is a building bloc for initiating modernisation in the Arab region. The ICT revolution is a global phenomenon that knows no boundaries and enjoys a lot of interest across national boundaries. The expectations in teaching and other applications have meant that the presence of a computer in an office or a classroom are basic expectations in every part of the world even where computers are scarce.

Farmer (2003) suggests that information in the digital world doubles up every two years, hence the need for students to be on the alert, and further states that online learning is cost effective and efficient. With the increasing information as a result of links and easy of dissemination the biggest challenge for educators and learners at large is the ability to focus on the relevant information and being able to avoid drifting in paralysis by analysis.

According to Tenneth et al (2004) some internal students use the online lectures to reinforce the face-to-face delivery and in their study students felt all their subjects be delivered via online. The obvious argument about the benefits of ICT in education tend to be addressed to distance education as it has made a big difference there by revolutionalising the whole process. However, the current explosion in the virtual environment in universities bears testimony to the fact that even students who attend classes on a regular basis will benefit from ICT. When in the past students had to submit their work for assessment in long hand that is now history. Where students had to be in class all the time to get lecture notes is no longer the norm as the same material tends to be posted on the virtual environment for access at the convenient time. Learners will be able top access assessment material at a convenient time and can submit work for assessment electronically.

The framework in figure 2 illustrates the education experience in distance learning as put forward by Tenneth (2004). The framework links all aspects of distance learning that come into perspective when ICT drives distance learning.

The illustration in figure 2 demonstrates that whatever teachers do in a classroom can be done via online provisioning. The obvious advantages with online delivery are speed and convenience.

2.1 The Myths and Misconceptions of Information and Communications Technology

While the notion of Information and Communications Technology is often associated with what is good it is important that academics appreciate some of the myths associated with the phenomena of ICT.

Dublin (2004) points at nine myths about information and communications technology which are summarised in Figure 3.

A lot of the issues where most people have misconceptions are centred around the notion of information technology being a panacea for success and that it will take charge.

2.2 The Benefits of ICT in Marketing Education

The Department of Trade and Industry in UK notes the benefits to industry of adopting information and communications technology by providing a model of e-adoption. To the extent that industry has benefits realised from IT, it is therefore imperative to marketing educators that they embrace this new phenomenon.

The gigantic paradigm shift in modern day practice in the last twenty years has significantly changed the way of life in business, education, science, health, entertainment etc. The ICT advancements cut across a plethora of human engagements. The world is now digital in most spheres. Much success has been attained with the aid of efficient and effective utilisation of ICT. More specifically the teaching pedagogy has changed for good. The modern day teacher has to be ICT literate. Teaching in general is no exception to the norm and moreso the opportunity availed by the virtual experience makes it more compelling to use ICT in teaching. It can be argued that teaching excellence can be enhanced by effective use of ICT.

Essentially ICT is the icing on the cake in teaching excellence. According to Kostopoulos (1998) the internet technology as an educator's resource outperforms the sun in that it covers the whole world all the time while the sun shines on half the world at any time. To that end Malhotra et al (2002) while acknowledging the potential of the internet to fundamentally transform educational delivery provides the benefits of computer networks in education as team facilitation, better meeting employer expectations, better meeting student expectations and facilitating information access.

On a broader context the OECD states on their website, www.oecd.org, Accessed 20 May 2005, that:

The growth and development of information and communication technologies (ICTs) has led to their wide diffusion and application, thus increasing their economic and social impact. The OECD undertakes a wide range of activities aimed at improving our understanding of how ICTs contribute to sustainable economic growth and social well-being and their role in the shift toward knowledge-based societies.

The OECD while acknowledging the importance of ICT seems to be adding another dimension that it is a vehicle for development and can lead to sustainable economic growth and well-being of society. There are multitudes of benefits that ICT brings to society.

ICT benefits in the teaching of marketing can be summarised as follows:

(1) Quality presentation- graphs, powerpoint

(2) Easy Access to teaching information for courses on blackboard/virtual environment

(3) Convenient research on the net – virtual experience

(4) Student academic exchange via remote interaction on the discussion board

(5) Large quantities of data sent via email

(6) Easy transfer and reference of information

(7) Enormous storage facilities of mountains of information

(8) Experiencing the virtual organisational marketing environment through the internet and the reality as captured and presented through multimedia

Morrison and Stein (1999) point out that information technology has transformed the search for knowledge into a multi-dimensional activity which brings with it challenges on how to prepare students. This is the case because there are multitudes of formats information can be stored in for different purposes and by different parties which are constantly changing. In the same vein Benbunan-Fich et al (2001) conclude that information technology offers great value for business education and marketing courses offer even more potential for application to motivate students to learn, increase students' proficiency in both general business and discipline specific skills upon graduation. In a related argument Berry (2002) highlights the importance of participating in international virtual teams as a way of enriching

student learning.

3. The ICT based crisis in the Teaching of Marketing

Rawwas et al (2004) makes references to multitudes of research in acknowledging that academic dishonesty, which includes everything from wrongfully getting information by looking at a neighbour's test to plagiarising from a term paper and a big and still growing problem in higher education.

The thesis in this discussion is ICT drives excellence in teaching with its antithesis being the disaster or crisis in teaching emanating from the advent of ICT complexity. Morrison and Stein (1999: p 317 -318) suggest that what is at stake is academic integrity and he goes on to argue:

Although technology can annihilate distance in terms of finding sources of information, it can also annihilate authenticity and worthiness if quality measures are not an integral part of the synthesizing of data into a meaningful account.

To the same end (Phillips and Horton 2000; Owens Swift et al (1998) point out that a new tool has entered the marketplace enhancing the ease of finding term papers, reducing the risk of being caught, and making it unnecessary to track former students, and furthermore, there are internet sites that aid cheating providing for examinations, banks of previous assessments and customised paper ordering hence cheating or academic dishonest, at the university level is a nationwide concern. Effectively this observation amounts to opportunities for buying education as those who have the inclination to pay to cheat could easily complete their education on the strength of their purse not necessarily their understanding of concepts and their applications or hard work which should be the case. Sharma and Maleyeff (2003) argue that there is a problem in judging the credibility of the internet in that the appearance and immediacy may give the impression of accuracy, aspects which may cloud the student's understanding of business, may also alienate students from society as it appears the internet is addictive and thereby kill social skills of students. Malhotra et al. (2002) concluded that the new technology and the internet are fundamentally enhancing both the classroom and distance marketing research education experience thereby presenting opportunities and challenges.

(1) Excessive plagiarism by students via wantom cutting and pasting

(2) Excessive plagiarism by academics to get academic mileage by submitting works of other people pretending to be theirs.

(3) Increased abuse of academic materials by other institutions through unsanctioned use of copyrighted material

(4) Outright cheating by students by purchasing answers or written work for gaining academic mileage via the internet. A simple search on the net will provide thousands of sources of assignments or dissertations, priced on the basis of the grade such work could earn the student.

(5) Death by powerpoint, a common reference to the notion of simply throwing in a number of graphics at the expense of quality presentation

(6) Reducing education to a very abstract process with very little interaction by virtue of distance and virtual learning which in some instances might not be a true reflection of the learning by the individual in question as some students will opt not to use IT and have their work done on their behalf by someone else.

Ayres (1999) highlights that the easy with which information can be accessed and copied on the internet many people are reluctant to publish online as they would lose royalties as the copyright control is very difficult. Given this scenario most people tend to use the internet because it is easy to access and ignore other sources this limiting access to information.

4. Recommendation in dealing with the ICT Crisis in the Teaching of Marketing

Taylor (2002) suggests that developing online systems necessitates that trainers and teachers should ensure that the environment enables learning to take place. In the same vein Teare (2000: p111) poses the question "If staying abreast of change means sustaining a perpetual forward motion , then how do you do this without creating chaos?" It is important that the utilisation of the key resources created by ICT is complemented by a change management strategy with a strong focus on the adverse effects of the whole process. Teare (2000) further states that the rise of the "corporate university", especially in the USA is linked to rapid pace of change and the need to align such learning with the needs of organisations. Ueltschy (2001) concludes that faculty, university administration, government officials must cooperate in securing emerging technologies and integrate them into the learning environment.

(1) The utilisation of plagiarism detecting software will go a long way in warning the student and thereby discouraging such acts and identifying it where it takes place

(2) Educational institutions should put in place strict rules and regulations of dealing with the acts of plagiarism which will demonstrate the non-tolerance of such acts.

(3) Students should be tasked with assessments that require them to work in groups and make presentations to ensure that they are analytical rather than cut and paste warriors with no analytical capacity.

(4) In cases where students share an assignment write-up it is important to make it clear that if this was a deliberate exchange then both are liable to a heavy punishment and only in the case of theft of such work should it be heavy on one student.

(5) Student monitoring of assignment execution and submission should be tracked so that they do not buy it off traders in academic assessments, moreso, it is important to do random checks with such organisations on selected assessments which might help detect some of the perpetrators.

Phillips and Horton (2000) recommend four strategies for dealing with academic cheating; 1. Use current developments for assignments which would mean no previous works can be used for cheating; 2. Use group work which will not give scope to rushed work and abuse; 3. Police the internet for potential abuse and thereby minimize cut and paste by making the students aware; 4. Develop a strict policy that is incorporated in the assignment.

While cheating is a natural human phenomenon it goes without saying that it has never been tacitly legalised in academia and will never be. The recommendations suggested in all honesty are meant to minimize the proliferation of cheating as it is virtually impossible to completely eradicate it.

5. Conclusion

The advent of ICT remains the greatest human invention as it cuts across all human engagements. There is no doubt that excellence has been realised through ICT driven teaching. In acknowledging the crisis created by this phenomenon it is important that every effort is made that abuses are minimised. Where cheating has been detected people involved must be shamed and punished. At the same time the use of detecting instruments is of the essence. It is important that the long arm of the law must stretch to reach out for the criminals bent on profiteering from the sale of educational qualifications or educational materials in view of the fact that these are accomplices in the crime against academia. Jones and Kelly (2003) make a very objective argument in advising that while the internet has proved to be a very powerful tool in teaching it is important that marketing educators adapt the internet to their teaching style instead of falling prey to the trendy feeling of using the internet. The information and communications technologic wave will continue to transform business, education and society in general as Close et al. (2005) point out that from the "chalkboard to cyber-course" the internet greatly impacts modern marketing education and the internet will in future dominate both research/education and topic of study. The ICT wave currently sweeping across nations and professions has a global reach, a sophisticated information technology, mass customisation of products and services, and technological revolution hence today's students need to be globally literate

While the abuses may be difficult to detect given the complexity of the mechanics of cheating employed the real test comes in the work environment. There is a limit to how much one can pretend to be informed where they have simply got the better of technology and got a qualification.

The solutions for the way forward must incorporate the whole process of ICT related instruments of delivery in education and their adverse effects. The focus of any solution is to try and minimize cheating via the use of ICT tools.

The gigantic impact of technology for today and in future is without question as McCorke et al (2001) put it that they have become a constant in the business education and will continue to increase in importance in future, it is therefore without question that it will forever remain a key facet of all aspects of human functionalities but its pitfalls must be managed.

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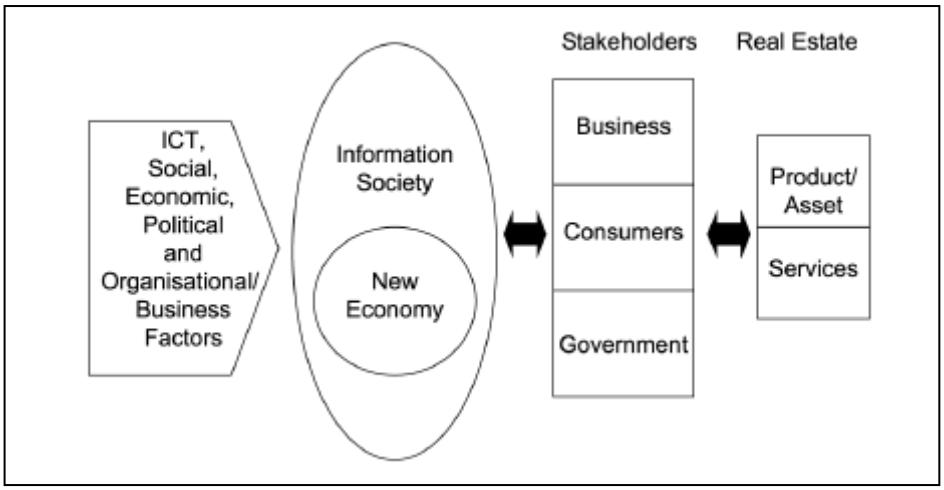

Figure 1. Key new economy drivers in property/real estate (societal technical model)

(Source: Dixon et al 2005)

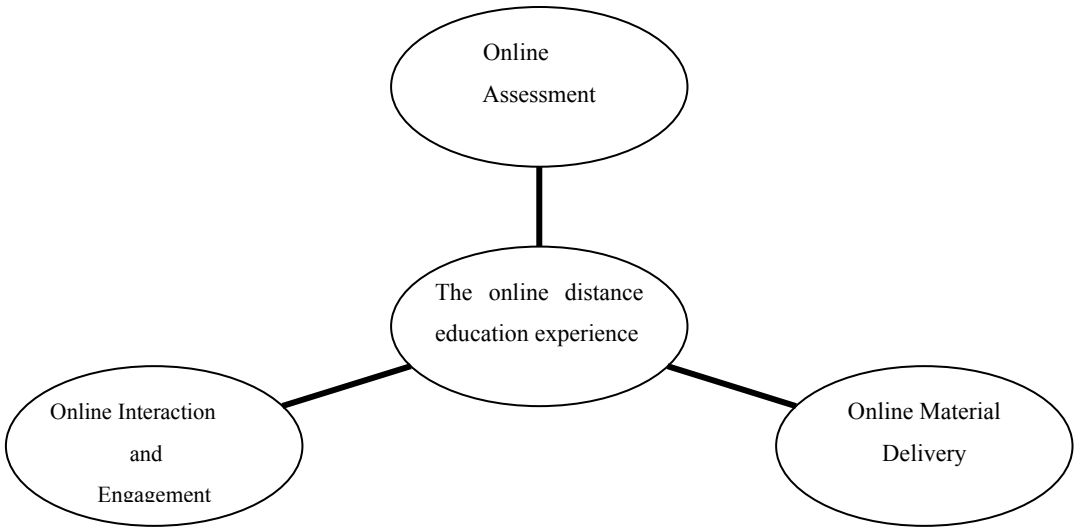

Figure 2. Components of the online distance education experience

Myth 1: everyone knows what you mean when you talk about e-learning
Myth 2: e-learning is really no big deal
Myth 3: the "hard-stuff" – the technology – is what's really difficult
Myth 4: the learners are who really count
Myth 5: learners know what to expect
Myth 6: communication is about telling
Myth 7: success is getting it to work
Myth 8: once is enough
Myth 9: it's magic

Figure 3. Nine myths about information and communications technology

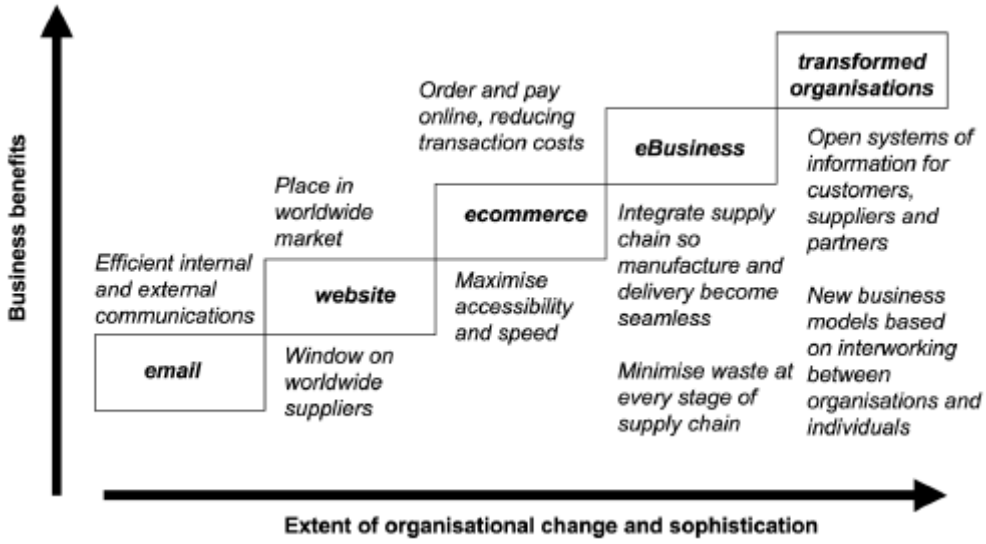

Figure 4. Model of e-adoption ladder

(Source: After DTI 2001)