Information Society Network [ISN]: Delivering Lifelong Learning with Respect to European Computer Driving Licence [ECDL] for SMEs in UK

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INTRODUCTION/ABSTRACT

To develop a reliable information and communication technology dissemination system which will technologically empower users and give them responsibility to achieve organisational expectations. In addition, a network link will be developed to provide effective information sharing for Small & Medium Enterprise [SMEs] in United Kingdom through partnership or collaboration or alliances.

The effective utilization of e-commerce and web based learning, maximum technological inventiveness and technical expertise in use will minimise resources and financial wastage.

This will provide savings and business opportunities to mobilizing resources and persistence exploitation of viable technological and e-business model. According to Alan (1994) "Output ‘gapology’ are caused by a lot of factors, especially technological; and low investment on research and development. The technological structure of UK in terms of implementation of e-business within SMEs requires practicability, functionality and investment on research and Web based delivery as its essential and utmost characteristic"

To compare the effectiveness of WebCT with other online training packages used for the delivering of European Computer Driving Licence [ECDL]. This project will examine the following key issues:

- ❖ Software performance and user friendliness
- ❖ Cost benefit
- ❖ Built in diagnostic parameter

Keywords- **European Computer Driving Licence, Small & Medium Enterprise (SME), WebCT**

RESEARCH AIM

The key aims of this research are:

1. To evaluate VMN within SMEs and institutional provision of ECDL

2. To determine the effectiveness and capability of Web and Email services

3. To establish the cost benefit effect of online network development

4. To establish if there is any alliance through effective information sharing

LITERATURE REVIEW

There was extensive review of literatures in the area of Web & Communication Technology [WebCT] and web based delivery.

VIRTUAL TRAINING AND e-MANAGEMENT SYSTEMS

The application of Mckensey 7s structures and Johnson (1993) model in terms of cultural gap analysis theories revealed that as

cultural gap widens also the gap between what SME organisation(s) expects of application software and its performance tends to be too large. This makes it difficult for the extend of highly powered information warehouse from large organisation down to the small organisation, whose level of technological acquisition is a financial issues in terms of software acquisition. Therefore it implies that the problems of software acquisition has been attributed to level of awareness and the possibility of integrating the key elements together.

COLLABORATION, PARTNERSHIP AND ALLIANCE

There was evidence of collaboration but its effectiveness needs to be improved through online mechanism. The realisable benefit of collaboration and partnership cannot be over emphasised. Collaboration is important because it relates directly to building and sharing knowledge; collaboration is linked to learning. It builds a relationship between organisations and the team. The aim of Collaboration may be two folds. It may be for the purpose of buying in expertise that the organisation lacks or balancing the strength of the team with respect to resources and extended facilities. The extended services provided through collaborative partnership can transport a weak organisation to high potential level that its full potentials may be realised. Collaboration is solely based on trust like any other business.

In order to achieve collaboration with a team, it is necessary that role definition takes precedent and then the following concept:

♦ Diversity Based trust

♦ Stable identification-based trust

♦ Stable knowledge-based trust

♦ Stable calculus-based trust

COLLOBORATIVE STRATEGY MODEL

The traditional factor of 'PEST' applies to the e-driven model and 'TOP' which implies Technology, Organisation and People. The change from traditional and mechanistic approach of information dissemination to network-driven approach implies that the information re-engineering is taking place. The reason is seen as integration between SME organisations and Technology and personnel striving to meet the dual expectation through adaptation.
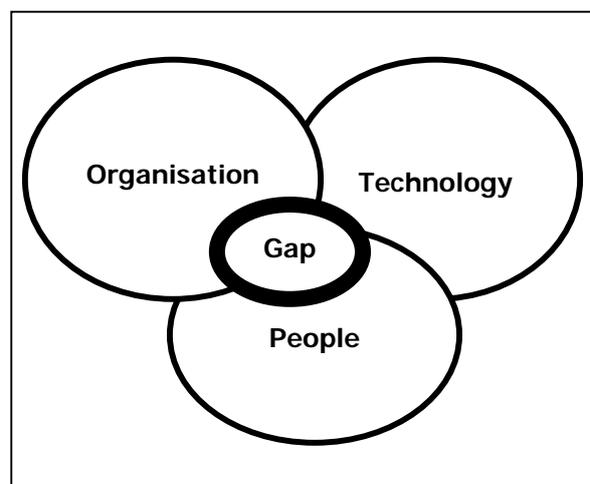
Collaborative Strategy Model of TOP
(Technology, Organisation & People)

CYBER MANAGEMENT ENVIRONMENT

The term cyber management environment (CME) relates to providing management services through internet, intranet, extranet and using simple world wide web site. The SME organisations do not have the financial capacity and tend not to value the importance of information sharing electronically and the application of knowledge management as means of documentation. In practice the argument remain that most of the SME organisations and their personnel need to have access to certain categories of information without restriction. The cyber management environment will provide remote link featuring some of the most technological

advance packages and network based application within virtual environment.

Stuart (1998) argued that the new global economic switch as led to increased demand for new skills especially SME managers who are information technology competent or computer literate. The argument has its consequence but did not address the issue of SME organisations of very small sizes such as two to four or personnel. Therefore a cyber management will provide remote access to customers and means of satisfying the clients on-line. The SME organisations may use the advanced network systems and information technology, with video conference links to the premises of their business client by full access to Internet. Further development in this direction will transform the traditional SME business organisations into network oriented and integrated environment.

Macleod (1998) described the remote office as complex, in terms of the level of sophisticated technology required. This is an indicator for the provision of basic Intranet technology training needed for non-information technology personnel and SME organisations who may be involved in delivering or providing business services. This will enhance the services expectation level of the SME organisations without dedicated on-site technical support. The issues of cost in acquiring standard information technology system remain the only retarding factor confronting SME organisations in UK.

The cyber management environment is facilitating a radical reform within SME organisations as physical representation at business site and premises will be reduced at cost effective level. Furthermore, this will make the SME organisations to be competitive like any other business service provider(s). Otten (1994) in describing information technology and associated electronic communication, classified their benefit over the traditional systems as follows:

- ♦ Overall cost reduction
- ♦ Efficient communication system
- ♦ Positive media relation within organisation in terms of networking and image
- ♦ Integrated environment in terms document management and efficient storage and retrieval system
- ♦ On-line delivery services

VIRTUALISATION AND OPEN OFFICE SYSTEMS

Virtualisation and Help desk system provides a single entry point of contact with the client access to all SME business and management services (Facilities Management Guide, May 1996). The main objective the help desk in SME organisation was to assist the operators or manager to monitor and carry out quality check of the services that the SME organisation provided to their client or customers. The importance of help desk cannot be over emphasised as it provides effective link to work control and also as a means of logging in request. The network development can facilitate the help desk procedure especially for off-site request or request made on telephone. The help desk enables the SME organisation to provide efficient and reliable services, which are quality driven and supported by client satisfaction.

VIDEO CONFERENCE AND FACILITIES MANAGEMENT

The SME organisations are developing training in network driven systems and business related services. Napier (1998) argued that as the technology matures and more standards emerge, applications for video conferencing are growing. The argument could be misleading to SME organisation personnel, as network applications are composites of information technology synergy postulated the network

personnel. This leaves SME organisations with total decision about outsourcing their network and communications systems. The introduction of network platform that enable everybody to believe that everybody is shopping, doing business and providing services to customer on-line. The performance of SME organisations that invest in video conferencing as meeting place that is systematic and user-friendly has shown in their annual report as benefits through network technology.

SMEs ORGANIZATIONAL REQUIREMENT AND MANAGEMENT

The organisation requirement as they move from traditional management to network driven management gave birth to network driven total management (NDTM). The network driven techniques provided the following service areas:

1. Information Services
2. Support Services
3. Financial Services
4. Site Services

The SME organisations need to have enough experience in various information technology support packages. These include developing interpersonal skills and media led approach, such as:

♦ Confidence

♦ Conscientious

♦ Communication

♦ Operation in terms of being pro-active

These will enable the SME managers to achieve competitive values and maximise the available space in terms of choice for secure business, sensitive in providing efficient services and developing complex environments. The concept explained above will enable the SME managers to achieve their organisation's objective through maximisation of their potential inputs and building stronger partnership and efficient co-ordination. The SME managers with the introduction of network development became proficient in providing the following services through in sourcing and outsourcing including information technology related services.

The services are as follows: Problem resolution, Telephone service, Voicemail service, Security (maintain physical security and managing security for works service).

There are various different organisational setting that network development will enhance, especially in using regular information from the Internet will benefit from additional functionality and open source. These information are provide from monitoring services such as databases, development of facility management archives and satellite services. The internal web site and e-mail services are effective tools for information dissemination and SME managers need to be professionally equipped and knowledgeable of the development in network and technological advancement. Keeping up with the changing information sources and choosing between different online data providers, all appearing to offer various services, as lack of adequate knowledge of the network may be misleading to the SME managers. The use of the Internet may very difficult for in-experienced SME manager and the World Wide Web remain under-utilised in an organisation that lack compliance and advancement in these technologically driven environment. The use of totally integrated information resources enable organisations to provide integrated data search and retrieval environment allowing users to utilise effectively the full potential of diverse information resources, including on-line services and the Internet including security.

The need for SME manager to apply the open sources for network development in delivering effective benchmark and hot-

desking techniques becomes an important aspect of network development. Desktop multimedia and animated model of SME management services. The integration of the Intranet will provide SME organisations and their service – client and end users with enhanced access to an event wider range of information resources from a single Web interface. There is indication that some of the SME management services remain a traditional issue while the information service creates the integrated business services and facilities environment.

It is the responsibility of SME managers and their workgroup to perform these services in most appropriate, cost effective and cost benefit manner. Graham (1998) argued that the SME managers and the organisation must aim to develop effective method for establishing best practice in terms of industry standard, legislative requirements and service contract. The role of this research lies on the use of network integration of all the virtual services including two to four personnel size SME services providers and implementation of new IT driven structure. At the same time provide adequate maintenance culture and management structure for all acquired information technology and communication equipment.

TECHNOLOGICAL CHALENGES FOR SMEs

The need for technological expertise in achieving positive corporate or business image cannot be over emphasized for developing quality amongst Small and Medium Enterprises. According to Papows (1999) in the publication "How long can technological uniqueness last". The argument may be transformed into the present scenario about compatibility of technological systems. Papows described information technology as one of the complex attributes or components of PEST factors (Political, social, economic and cultural variables affecting business evolution). This view has positive link to Ariwa (2001) in the descriptive model

analysis of TOP (Technology, Organisation and People) which considered culture in trivalent dimensions

Kare-Silver (2000) qualified internet and other forms of electronic connections as offering potentials for database marketing. This view may need further substantiation in order to claim the full attributes of database marketing in its e-trading viewpoint rather than the traditional definitions attached to it. The issue of knowledge and information sharing will be best delivered through this channel and customers may reach any small business within a global perspective. In addition, e-trading empowers customers and offers broader opportunity to SMEs in terms of fairness and openness. Kare-Silver in the paper 'Setting the Strategy and Mobilising the Organisation' made it clear that 78% of senior executives in a recent research felt that electronic commerce will make great change to organisations in the next decade. The paper further emphasized on the implication of Competence and skills to manage the new dimension infrastructures and coping with the cultural change as incorporated in the TOP model (Ariwa, 2001).

A review of e-learning survey conducted within the European Union, showed online applications is used widely within the following constituted sample representation: fifty percent [50%] among users and thirty-four per cent [35%] among suppliers. Visscher, 2000; Karsten, 2000; Jong, 2000; Bosker, 2000; classified technology into four components, namely artifact or hardware, sociotechnical systems of production, technic or methodology which encompasses knowledge, skills and general know-how and sociotechnical system of use. McGinn, 1991; Melzer et la., 1993; Latour, 1996 argued that despite the fact that interaction with technological systems and artifacts virtually forms most or all of our existence both at waking and sleeping dimensions. This is open to further research and debate.

METHODOLOGY AND ANALYSIS

Questionnaire, interview and online applications was be used. The information and data gathered was used to analyse the requirement of expected design. The analysis will lead to building a constructive web model & network driven ICT Model.

WEB SITES

The use of network driven systems, into the acquisition and transfer of knowledge, using resources from the World Wide Web was of great importance. The result showed that out of the 644 SMEs, that only 79 provided evidence of having a web site, a representation of 12.27%. In addition, 401 SMEs did not have their own web site, as this showed a representation of 62.27%.

EMAIL AND COMMUNITY TRAINING

The evidenced showed that 243 SMEs provided email within their business platform, this represents 37.73%.

There was evidence that the local training and Skill Council were actively involved in providing training at subsidised rate and funding made available for development of basic ICT skills through ECDL training scheme within the local providers.

CONCLUSION AND RECOMMENDATION

In summary, there is research evidence that SMEs in UK are lagging behind in terms of implementing effective virtual management systems through online provisions such as email, e-forum and web site.

INTEGRATED CYBER BUSINESS ENVIRONMENT

The term cyber business environment relates to providing services through Internet, Intranet, extranet and using simple World Wide Web site. Research has shown that most of SMEs pay lip service to the importance of having information and the means of documentation. In practice the argument remain that most of the organisation and their personnel need to have access to certain categories of information without restriction. The cyber management network (CMN) will provide virtual site and telecottage featuring some of the most technological advance packages and network based applications within efficient resource environment.

Finally, the issues of cost in acquiring standard information technology system remain the only retarding factor confronting SME organisations in UK.

SMEs COMPETENCE INTERVENTION ANALYSIS

Human factors in outsourcing and delivering affective online trading services within SMEs was based on the pursuit of best values and business customer relationship management on close vicinity within localities and sub regional affiliations. Norman (1998) in the descriptions supported this argument as "A Major source of loyalty is people's believe that they work for an organisation whose core values are compatible with their own". It is not clear if Norman focused the Belief theory on effectiveness of service delivery or electronic collaborative services within SMEs. The following electronically driven models or links for non-traditional service delivery were contributors toward the success of SMEs in developing effective global trading.

❖ Online

❖ Email

❖ Cyber classroom

❖ e-forum

❖ e-group

❖ e-chat

Furthermore, in order to enhance the e-techno-business service applications and

competence required for successful implementation of business expectation of SMEs will be required to provide support in Computer Literacy programmes geared towards basic business. The agencies may encompass the following provision and support service affiliated bodies, the external support of local Chamber of Commerce, Learning and Skill Council (former Training and Enterprise Council [TEC]) and the appropriate Central Government agencies. In addition, it is necessary to develop the following Information and Communication Technology [ICT] applications specific schemes tailored towards:

❖ Workshop based model - IT Studio

❖ Use of basic applications software

❖ Business information management

❖ Knowledge management and information sharing

❖ Information Technology profile and investment analysis

The use of alternative business forums and focus groups in the dynamic pattern of e-link Model and Cyber Breakfast but business driven. The research proposes the following techniques and support mechanism models:

❖ Minimum of 30mins hands on support

❖ Minimum of 10mins Business 'planner'

❖ 10mins Virtual reality and Cyber Quizzes oriented online tour on 'difficulties' analysis

❖ Appointment for next meeting online

❖ Feedback analysis

❖ 3 hrs/week in-office hours appointment with Local support agencies

❖ Discussion of weekly activities and inclusion of e-learning or online application

❖ Online Incorporation or Collaborative issues for business performance and efficiency

❖ Social and interpersonal issues

❖ Cultural diversity and its dynamics within the e-framework

REFERENCE

1. Uman G. Gupta (2000): Information Systems (Success in the 21st Centuary). Prentice Hall International (UK) Limited, London

2. Garry Nutt (2000): Operating Systems (A Modern Perspective). Addison Wesley Longman Inc. USA

3. Garry Nutt (2000): Kernel Projects for Linux. Addison Wesley Longman Inc. USA

4. David Walters et al (2000): Retail Strategy – Planning and Control. Macmillan Press Limited, London

5. Charles W. L. Hill (1998): Strategic Management Theory – an Integrated Approach. Houghton Mifflin Company, New York, USA

6. Kathryn M. Bartol et al (1994): Management. McGraw-Hill, Inc.; USA

7. Francis A. (1998): Business Mathematics and Statistic. Letts Educational publishing, London

8. Robert D. Galliers (1999): Strategic Information Management (Challenges and Strategies in Managing Information Systems). Butterworth & Heinemann publishing, UK

9. Bart Van Looy et al (1998): Service Management – An Integrated Approach. Financial Management publishers, London

10. Michael De Kare-Silver (2000): e-shock 2000 (The electronic shopping revolution: strategies for retailers and manufacturers). Macmillan Press Limited, London

11. Thomas M. Siebel (1999): Cyber Rules (Strategies for Excelling at E-Business). Doubleday publishers, New York, USA

12. Howie L. Lyke et al (2000): IT Automation. Prentice-Hall International (UK) Limited, London

13. Kare-Silver, Michael De (2000): e-Shock 2000. The electronic shopping revolution: strategies for retailers and manufacturers. Macmillan Press Limited, London

14. Zietman, Clive and Bettina (1988): the Incredibly Web Directory. Kogan Page Limited, London

15. Papows, Jeff (1999): Enterprise.com – Market Leadership in the Information Age. Nicholas Brealey Publishing Limited, London

16. Tutt, Norman (1998): Human Factors in Outsourcing. Workplace Facilities management publication, March 1998

17. King, J. G. et al (1990): developing and Implementing Business Information Systems for Small Businesses. Business & Accountancy Publications, UK

18. King, Jerry G. (1988): Accounting & Cost Controls for Sawmill Manufactures. Business & Accountancy Publications, UK

19. Dennis, J. William (1986): Small Business Problems and Priorities. N.F.I.B. Foundation Publications, UK

20. Jackson, E. John (1986): American Entrepreneurial and Small Business Culture. N.F.I.B. Foundation Publications, UK

21. Rumberger, Russell et al. (1986): Computer for Small Business. N.F.I.B. Foundation Publications, UK