Added Value Benefits of Application of Internet Technologies to Subject Delivery

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EXECUTIVE SUMMARY

The application of Internet technologies towards distance education is widely discussed in the literature. This case applies Porter's 'added value' theory relating to the use of IT to the application of Internet technologies used as a supplement to traditional classroom subject delivery. Most of the reported advantages of this type from online course and subject delivery relate to cost savings in terms of efficiency, flexibility and/or convenience for the students.

The case study examines a range of subjects taught in the School of Information Systems at Victoria University, Australia. Each subject uses Internet technologies for different 'added value' benefits. Subject coordinators comment upon the use of the Internet technologies for both academic and administrative aspects. Students are surveyed to determine the value of Internet technologies from their perspective. Student responses indicated the applications were perceived to be at least 'useful', and findings supported Porter's theory.

The challenge for the faculty is to demonstrate the 'business' benefits to faculty staff of adopting Internet technology for teaching. The case studies have shown that the use of Internet technologies by students seems to be higher where the coordinator actively encourages it.

SETTING THE STAGE

The application of Internet technologies towards distance education is widely discussed in the literature, however the overwhelming majority of educators use the Internet to supplement existing modes of delivery. Importantly, the Internet is providing a number of 'added value' supplemental benefits for subjects and courses delivered using this new, hybrid teaching mode.

This case study examines a range of subjects taught in the School of Information Systems at Victoria University, Melbourne, Australia. The case study involves the examination of four separate subjects (two undergraduate and two postgraduate) offered by the school. Each subject uses Internet technologies (as a supplement to traditional teaching methods) in a different way, for different 'added value' benefits. Subject coordinators comment upon the 'added value' provided to them and to the

School by the use of the Internet technologies in both the academic and administrative aspects of subject delivery. Students of the subjects are surveyed to determine the value of the application of the Internet technologies from their viewpoint.

Information Technology: Efficiency and Added Value

There are a number of reasons for using IT in organisations today (O'Brien, 1999):

- *For the support of business operations*. This is usually to make the business operation more efficient (by making it faster, cheaper and more accurate). Typical uses of IT in this way are to record customer purchases, track inventories, pay employees and so forth. Most uses of IT in this area are internal to the organisation.
- *For the support of managerial decision making*. To assist with decisions such as whether to add or delete lines of merchandise, expand the business or employ more staff. This is done by the simplification allowing more sophisticated cost-benefit analyses, providing decision support tools and so forth.
- *For the support of strategic advantage*. This final reason for using IT is not as well known as the other two areas (especially in small businesses). It refers to the use of Porter's three generic strategies (low-cost producer, differentiation and niche market provider) as a means of using information technology to improve competitiveness by adding value to products and services. By their very nature such systems need to refer to forces external to the organisations (customers and sometime competitors).

It has been recognised for a number of decades that the use of computers can provide cost savings and improvements in efficiencies in many organisations. Michael Porter (refer to publications such as Porter (1980) and Porter and Millar, (1985)) has generally been credited with recognising that the capabilities of information technology can extend further to providing organisations with the opportunity to add value to their goods. Value is measured by the amount that buyers are willing to pay for a product or service. Porter and Millar (1985) identify three ways that organisations can add value to their commodities or services (known as generic strategies for improving competitiveness):

- *Be the lowest cost producer* (an organisation produces a product or service of similar quality to competitors, but at a lower cost). This strategy allows a business to charge a lower price than competitors and make a larger profit by increasing market share, or charge the same price and make a higher profit per unit sale (Kling and Smith, 1995).
- *Produce a unique or differentiated good* (providing value in a product or service that a competitor cannot provide or match, at least for a period of time). It is hoped that customers consider the goods as being unique, and that they would be prepared to pay a premium price for this added value (Kling and Smith, 1995). If an organisation is the first to introduce a particular feature it may gain a competitive advantage over its rivals for a period of time. When another organisation matches that particular feature, it may not gain a competitive advantage but it will still be adding value, in the consumers' eyes, to its own products. Some ways in which information technology can be used to differentiate between products and/or services are (Sandy and Burgess, 1999):
  - *Quality:* this relates to product or service traits (such as durability) that provide a degree of excellence when compared with the products or services of competitors.
  - *Product Support:* the level of support provided for the product or service. This can include information on how to use the product, product replacement/return strategies, and so forth.
  - *Time:* this works on the concept that buyers will pay more for a product that is provided/ delivered quickly, or will choose a product of similar price and quality if it is available now over a competitor's product that is not currently available.
- *Provide a good that meets the requirements of a specialised market*. With this strategy, an organisation identifies a particular niche market for its product. The advantage of targeting such

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