

Sustainable competitive advantage for educational institutions: a suggested model

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Abstract

This paper outlines a model of the factors that are critical to the establishment and maintenance of sustainable competitive advantage for education services enterprises in international markets. It draws together theories of competitive advantage developed by industrial economics and management theory, with literature relating to services marketing. In examining a theory of sustainable competitive advantage for services exports, the paper discusses the concepts involved and presents a model of the process involved in achieving it. The model seeks to explain the strategic decision making environment in which the education exporter operates, and the outcome ideal to achieving a competitive advantage.

Introduction

The world market for international education is measured by the number of students enrolled in education institutions outside their own country. The United Nations Educational, Scientific and Cultural Organization (UNESCO) collects data on international student movements from countries that receive such students in large numbers. According to UNESCO, there were 1.3 million foreign students, studying at the higher education level, in 50 host countries during 1993 (UNESCO, 1996). These students represent about 95 per cent of the known world total. This suggests that there were about 1.5 million foreign students studying at the higher education level throughout the world at that time. The number of students studying within the non-university sectors is more difficult to estimate. However, their numbers are significant and would substantially increase the total, making the "education industry" an even larger international sector.

Despite the importance of services, such as education, to national economies they have tended to be ignored or overlooked, due largely to their intangible nature (LEK, 1994, p. 18). Indeed, prior to the 1970s, services marketing was not distinguished as a separate field of investigation (Berry and Parasuraman, 1993; Fisk *et al.*, 1993). One reason for this is the difficulty associated with the classification of services as "basically the range of services is too broad to allow meaningful, in-depth analysis of the entire field" (Lovelock, 1991, p. 25).

Business and economic research has, therefore, traditionally ignored services as intangibles, useful only in supporting the marketing of goods. However, as the importance of services within most economies

grew during the decades following the Second World War, the level of interest in services as a distinct field of study increased (Berry and Parasuraman, 1993). A major concern at this time was whether services should be viewed as a separate field with its own distinct set of problems (Regan, 1963; Judd, 1964; Blois, 1974). Rathmell (1966), for example, noted the strong "goods" orientation of marketing and called for a more effective classification of services, suggesting 13 characteristics that defined them. Donnelly (1976) identified the different problems facing the distribution of services, which were distinct from those of goods.

Fisk *et al.* (1993) identified three distinct phases in the development of services marketing. Phase one (1953-1979) saw debate concentrated on whether or not services posed distinctly different marketing problems from tangible goods. Phase two (1980-1985) witnessed an expansion of the research into services and the establishment of services marketing as a distinct sub-stream of research. During phase three (1986-present) a number of areas of special focus emerged, namely service quality, service encounters and experiences, service design, internal marketing, customer retention and relationship marketing. Indeed, the past 30 years has witnessed the emergence of services marketing as a fully recognised separate field of academic investigation (Berry and Parasuraman, 1993).

Almost absent from services research has been an examination of education as a specific marketing area. Like many other "professional services", education has tended to shun marketing (Morgan, 1991). Despite this neglect, education remains a service as capable of treatment as any other in terms of marketing theory. In doing this, an important starting point is to determine the classification of education as a marketable service. Lovelock (1983) has offered a useful conceptual foundation that involves five criteria, each of which can be examined on



four dimensions. Using Lovelock's framework, education services can be described as having the following characteristics:

- 1 *The nature of the service act* – the education service act is directed at people (their minds rather than their bodies), it is primarily “people based” rather than “equipment based” (Thomas, 1978), and involves largely intangible actions (Shostack, 1977).
- 2 *The relationship with the customer* – education involves a lengthy and formal relationship with the client and a continuous delivery of the service. Students have what Lovelock (1983) refers to as a “membership” relationship with the service provider, offering an opportunity to develop strong client loyalty and enhanced client services.
- 3 *The level of customization and judgement in service delivery* – some services require greater customization and judgement on the part of service providers than others. The extent to which education services are customized is variable. Small tutorials or individual supervision are more customised than mass lectures. In most cases, the extent to which a service provider exercises judgement in meeting the needs of individual students is high. This is particularly the case with teaching staff. A problem arising from this is the possibility that quality can be affected by the variability of service delivery (Nicholls, 1987).
- 4 *The nature of demand relative to supply* – a service can involve a widespread demand (e.g. electricity) or a narrow demand (e.g. insurance). At the same time, the ability to alter supply quickly, to meet demand fluctuations, varies. While electricity services can be increased fairly quickly to meet peaks, if capacity is available, hotel accommodation is more difficult to regulate. In education, demand is subject to relatively narrow fluctuations over time. However, supply can be difficult to manage, with limitations on the availability of staff and places in courses.
- 5 *The method of service delivery* – the delivery of services may be classified into those requiring single or multiple site outlets and the nature of the customer interaction with the service. Customers may move to a service provider, or a service provider may move to meet them. International education services traditionally required the student to come to the institution to complete their courses. However, this is changing, with the establishment of offshore teaching programs and distance education (Soutar and

Mazzarol, 1995) and modern technologies (Hamer, 1993).

In a comprehensive examination of the services marketing literature, Zeithaml *et al.* (1985) identified four primary service characteristics, namely intangibility, the inseparability of production and consumption, heterogeneity and perishability. All of these dimensions can be found in education and each creates problems that must be overcome by deliberate marketing strategies.

Intangibility

Intangibility is a major distinguishing feature of services that applies particularly to education, where the specific nature of the service offering is difficult to define. Intangibility creates difficulties for patent protection (Judd, 1964), which is a major problem within international markets, particular in Asia (LEK, 1994, p. 98). Intangibility also makes it difficult to display or communicate services to the customer (Rathmell, 1966). This has been a problem, for example, for the promotion of Australian international education, which has received criticism for supplying insufficient detail and taking a glossy “touristy” approach to publicity materials (AGB, 1992). Further, the setting of prices in many service industries is made more difficult because of intangibility (Dearden, 1978; Thomas, 1978). Not surprisingly, therefore, fee setting in international education has been a contentious issue (Harris and Jarrett, 1990).

Inseparability of production and consumption

The difficulty in separating production from consumption in services poses additional problems. One of its principal outcomes is the need to involve customers in the production of the service (Booms and Nyquist, 1981). This is particularly the case for education, where students' participation in their own learning process is a critical success factor (Shuell and Lee, 1976). Another aspect is the likelihood that more than one consumer will be jointly involved in the production of the same service (George, 1977; Gronroos, 1978). Education has long been undertaken within a group and the group has been viewed as an important cultural transmission process (Singleton, 1974). Most education institutions are “socializing organisations”, designed to process large groups of people (Brim and Wheeler, 1966, p. 57). The concentration of students into mass lectures or large classes with a common or “core curriculum” is an attempt by institutions to overcome the difficulty of centralizing production (Upah,

1980). However, high student-teacher ratios do little for the development of quality learning outcomes, due to the individual differences between peoples' learning behaviours (Riding, 1977, pp. 111-29).

Heterogeneity and perishability

The heterogeneity of services poses significant quality control problems (Berry, 1980; Booms and Bitner, 1981). Not surprisingly, therefore, quality management has become a major focus of attention for education administrators in countries such as Australia, France, the United Kingdom and United States (Baldwin, 1991; Marceau, 1993; Harman, 1994; Lindsay, 1994; Edmond, 1995). The perishability of some services means that they cannot be placed into inventory, thereby creating the problem of under or over supply (Sasser, 1976) and this is true for education, although some aspects of modern technology (e.g. Web-based materials) may reduce perishability.

A model of sustainable competitive advantage for international education services

A model of sustainable competitive advantage for education service enterprises in international markets is suggested in Figure 1. The model has been derived from the theories of sustainable competitive advantage and services marketing and suggests that "market success" (measured by growth in market share and profits) is the outcome of delivering a successful combination of "distinctive competencies" that gain and sustain a competitive edge over rivals within international education markets. The idea that competitive advantage can be derived from internal skills, resources or assets (distinctive competencies) is widely referred to as the "resource-based view" of the firm (Collis and Montgomery, 1995).

The model assumes that strategy is the result of "environmental selection" (responses to considerations of external environmental factors) and "strategic selection" (responses to organizational resources and skills). Such a strategic management process is iterative and does not necessarily commence at any given point (Boseman and Phatak, 1989). Mahoney and Pandian (1992) point to the substantial literature surrounding the development of suitable "isolating mechanisms" from which a sustainable competitive advantage might be developed. They call for an integration of the approaches taken by the resource-based and "industry analysis" (environmental selection) schools.

It is in this spirit that this theoretical model is presented.

As a model of sustainable competitive advantage it draws more heavily on the environmental determinist view of competitive advantage than on the resource-based school. The model, shown in Figure 1, also draws inspiration from the work undertaken by Bharadwaj *et al.* (1993), who outlined a generic model of sustainable competitive advantage for services. In the sub-sections that follow, the elements of the model are explained, with reference to theories of sustainable competitive advantage. The discussion commences with an institution's considerations of its external environment, as constituted by overall industry structure and the structure of the foreign markets from which it draws students.

Industry structure

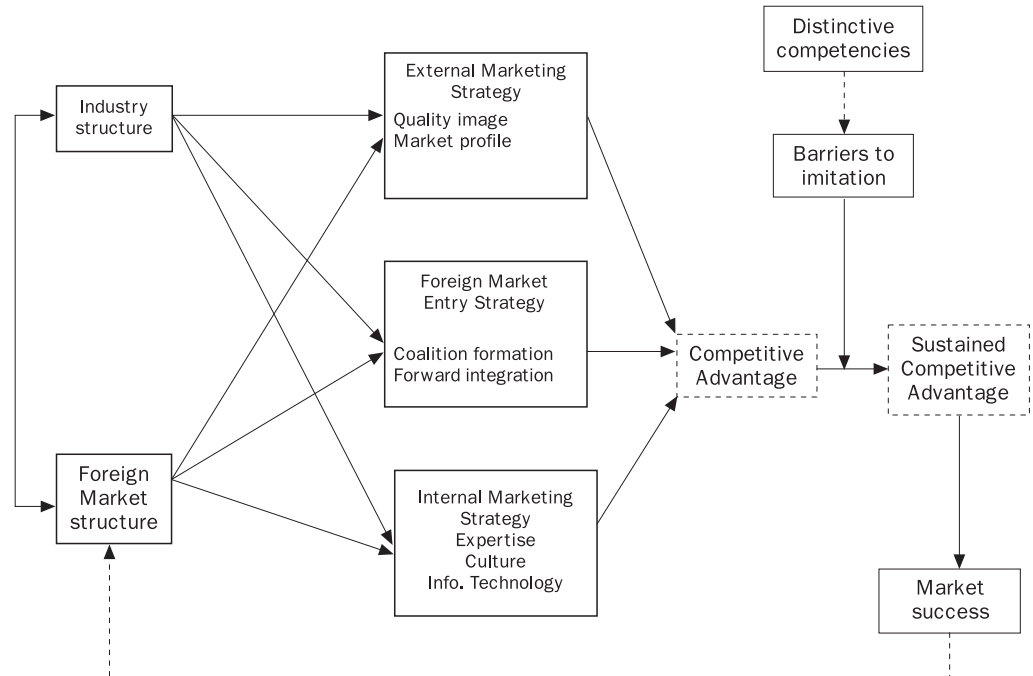
Porter (1990) argued that external industry forces comprised five factors, which he termed barriers to entry, supplier power, buyer power, threats of substitutes and industry competitiveness. Within international education there are a number of potential barriers to market entry. Some of the more prominent are economies of scale, government policies, brand equity and access to capital requirements. This can be seen in the reforms to the Australian higher education system, which took place during the 1980s (Harman and Smith, 1972; Meek and Goedegeburne, 1989). The amalgamation of institutions and the removal of the dual system of universities and colleges of advanced education was undertaken to achieve economies of scale and increase the longer term economic viability of the system (Baldwin, 1991; Mahony, 1994). Despite the relative success of some of the new universities in Australia, the early financial troubles experienced by the privately owned Bond University in Queensland serves as an example of the barriers facing a new entrant into this industry.

In terms of supplier and buyer power, the growth of the international education sector and the increased mobility and affluence of international students has enhanced their power. Since 1970 the international flow of students has been driven more by market forces than by government policy (Scott, 1994), making education institutions more subject to consumers and requiring them to be responsive to competitive forces that might shift consumers' focus towards other institutions.

In terms of substitution threats, the growth of offshore programs and the potential for education services to be delivered to students

Figure 1

A model of sustainable competitive advantage for education service enterprises in international markets



by interactive multimedia, are examples of such potential threats (Ives and Jarvenpaa, 1996). The expansion of the tertiary education sector throughout the world has led to debate about whether adult further education should be undertaken by education institutions or by industry groups and enterprises (Flint, 1991). The role of management education within universities (one of the growth areas of international education) has also been the subject of discussion, as to whether it is appropriate to teach it within universities or within industry (Watson, 1993).

From this discussion the following proposition about the role of industry structure to the development of competitive strategy in education service enterprises can be suggested:

PI: Industry structure will impact on the appropriate strategic approach that educational institutions should undertake internationally.

Foreign market structure

Enterprises operating internationally must consider the structure of the foreign markets they enter. A problem facing service enterprises in international markets is the "close cultural relationships between a society and the services offered in that society" (Dahringer, 1991, p. 7), which can result in services facing a variety of non-tariff barriers that are

not generally imposed on goods (Onkvisit and Shaw, 1988). Developing strategies to deal with these barriers is equally important to achieving competitive advantage.

Two other important elements of foreign market structure are "experience" and "psychic distance" (Klein and Roth, 1989). The first relates to the level of knowledge exporters have about the foreign market they are entering. According to Erramilli and Rao (1990), market knowledge is the most critical factor in determining entry into foreign markets. This is consistent with Johanson and Vahlne's (1977) suggestion that market knowledge, leads to market commitment, leading to enhanced market knowledge, resulting in increased commitment. Where experience in a foreign market is low, service enterprises tend to seek greater control of their export channel until their market knowledge increases (Erramilli, 1991).

"Psychic distance" is the difference in "attitudes and perceptions" between an exporting enterprise and a foreign market. The greater the "psychic distance", the lower the level of forward integration into the export channel (Goodnow and Hansz, 1972). The traditional view is that integration in export channels increases as experience falls, but Klein and Roth (1989, p. 37) found that experience and "psychic distance ... have different effects under different environmental conditions",

a determining factor in this process being the overall efficiency of the market. In an efficient market, non-integrated distribution channels can be as effective as integrated channels. From this discussion the following proposition can be suggested:

P2: Foreign market structure will impact on the appropriate strategic approach that educational institutions should undertake internationally.

The appropriate strategy will need to take account of three major factors, namely the enterprise's external marketing strategy, foreign market entry strategy and internal marketing strategy, which are discussed in the following sections.

External marketing strategy

External marketing strategy relates to the development of an institutional "marketing mix" (e.g. product, price, position, promotion and physical evidence) (McCarthy, 1971; Booms and Bitner, 1981). Takeuchi and Porter (1986) argue that, internationally, marketing needs to:

- "configure" the elements of the marketing mix so as to suit the needs of the foreign market into which the enterprise is operating;
- "coordinate" the overall marketing efforts of the enterprise across the range of foreign markets it engages; and
- provide "links" between the external marketing effort and the enterprise's functional elements, leading to the importance of an organization's internal marketing strategy.

Within international markets, economies of scale and scope can be achieved through marketing strategy. By standardizing activities across international markets and linking other enterprise functions to support the overall marketing effort, economies of scale and scope can be achieved (Takeuchi and Porter, 1986). For example, the marketing efforts of UK and US universities have been enhanced by coordinating their activities through the British Council or USIA. Australian and Canadian institutions are seeking to do the same by setting up similar structures (Woodhall, 1989; DEET, 1993).

This suggests the following proposition:

P4: External marketing strategy will need to develop distinctive competencies in relationship to quality image and market profile.

Foreign Market Entry Strategy

Because production and consumption are difficult to separate in services, the location

of service delivery outlets assumes a critical importance (Allen, 1988). For this reason the preemption of strategic locations is a source of competitive advantage within service industries (Bharadwaj *et al.*, 1993).

In international markets, spatial preemption is associated with foreign market entry strategies and, in turn, the channel structure adopted by the enterprise. According to Terpstra (1987, p. 333), foreign market entry strategy is "one of the most critical decisions in international marketing". Such decisions set the framework for channel structure and the level of control an organization has over the marketing channel (Stern and El-Ansary, 1982). Anderson and Coughlan (1987) suggest either an integrated (i.e. joint venture) or independent channel structure. Determining which approach to take is complex, being influenced by the level of intangibility or the nature of the market. The cost of an incorrect market entry decision is high.

Cowell (1984) identified six general strategies for foreign market entry by service enterprises (direct export, licensing, franchising, joint venture, acquisition and management contracting). As the name implies, direct export can involve the service enterprise sending its representatives abroad. However, in the case of education, the customer usually visits the producer country. Licensing, franchising, joint ventures, management contracting, and acquisition strategies all involve coalitions of some kind. They suggest a degree of forward integration into the export channel that requires the establishment of offices or facilities overseas, suggesting:

P5: Educational institutions' entry strategies will need to consider coalition formation and forward integration.

Internal marketing strategy

An organization's internal marketing strategy is "aimed at creating enthusiasm, consistent behaviour and respect for the general marketing strategy" among staff (Flipo, 1985, p. 8). For service enterprises, the link between external and internal marketing strategies is more important than within the goods sector (Gronroos, 1978) because service enterprises depend so heavily on the quality and performance of their staff (Thomas, 1978). Internal marketing strategy formulation involves the development of an organisational culture that is customer focused, with an emphasis on building long-term customer relationships that "is achieved by a mutual exchange and fulfillment of promises" (Gronroos, 1990, p. 138).

Another important aspect of internal marketing strategy is the development of an organisation culture that encourages innovation and a service orientation (Teare, 1992; Webster, 1992). Innovation of product, process or management is well recognised as a source of competitive advantage (Burns and Stalker, 1961; Kanter, 1982; 1989; Foster and Pryor, 1986; Ghemawat, 1986; Ansoff, 1987). This suggests:

P6: Internal marketing strategy will need to develop distinctive competencies in the areas of staff expertise, innovation culture and the effective use of information technology.

Distinctive competencies

If marketing and market entry strategies achieve their desired purposes, the result will be the creation of a series of distinctive competencies that provide sources of competitive advantage. Several distinctive competencies seem to be key sources of competitive advantage for educational institutions within international markets.

Brand identity – quality image and high market profile

The attributes of a brand, name or symbol that confer image or reputation is referred to as “brand identity” (Porter, 1980) or “brand equity” (Aaker, 1991). The process of branding a product requires careful management (Park *et al.*, 1986) but the branding and positioning of a service is even more difficult because of its intangibility (Dibb and Simkin, 1993). The intangible nature of services increases the importance of the enterprise name, rather than its individual service products (Berry and Parasuraman, 1993). In order to overcome the problems associated with intangibility, service enterprises need to “tangibilize” their services (Shostack, 1977) and present tangible clues to emphasize the realities of their service and differentiate it from competitors (Onkvisit and Shaw, 1988).

Brand identity is particularly relevant for professional services, where the perceived risk of making an incorrect purchase decision is high (Hill and Neeley, 1988). In such services, the service provider’s image is critical to the purchasing decision as a brand or name with an established reputation reduces perceived risk (Levitt, 1986). Not surprisingly, Aaker (1989) found that service enterprise managers ranked reputation for quality and name recognition/high profile as significant sources of competitive advantage.

Coalition formation

Porter and Fuller (1986) have noted the importance of coalitions in international marketing. The primary benefits of coalitions being the ability to gain “economies of scale”, “access” (to distribution channels, capital, local knowledge etc.), “reduction of risk”, and an ability to shape competition. Coalition activity can be a source of competitive advantage (Dunning and Pearce, 1985; Ohmae, 1994), as evidenced by the recent growth in coalition activity among education services exporters (Scott, 1994). Within the international business community, the trend has been toward the formation of strategic alliances (Pekar and Allio, 1994). For an education institution seeking a competitive advantage in international markets, coalition formation is an outcome of its external marketing strategy. As such, it is a distinctive competency capable of providing a source of competitive advantage.

Forward integration

Erramilli and Rao (1990) identified two broad types of service enterprise (“hard” and “soft”). The former has the ability to separate the production and consumption of their service (e.g. architecture), while the latter cannot (e.g. education). “Hard” services can be exported directly. By contrast, “soft” services need forward integration of some type if the enterprise is to establish an offshore presence. Erramilli and Rao (1990) found services exporters divided into “client following” and “market seeking” firms. The first were service providers who exported only because clients moved internationally and they were obliged to follow. The second group actively sought foreign market opportunities. Education might be classified as a “soft” service and most of the institutions seem to engage in “market seeking” behaviour.

The inseparability of production and consumption increases the need for international services exporters to integrate forward into overseas marketing channels and establish “foreign manufacturing facilities” (Nicoulant, 1989). Because “soft” services, such as education, involve a high degree of “consumer-producer interaction”, there is a strong desire for control and a presence by producers during early phases of export development (Vanermerwe and Chadwick, 1989). Such service exporters prefer to retain a high control to the export channel until they are experienced within the market. The degree of forward integration may be a source of competitive advantage for service enterprises in international markets.

An empirical study by Bharadwaj and Menon (1993) found that forward integration increased the market share of service enterprises and had a significant positive effect on financial performance. By contrast, backward integration strategies appeared to have little influence. Service quality was found to have a positive influence on lowering the enterprise's business risk. Reputation and service image also served to increase market share and lower business risk. Financial performance was enhanced and business risk reduced by the development of synergies between business operations and marketing activities. Customization of service offerings was also found to increase market share while advertising increased market share but reduced profitability. Although exploratory in nature, the study highlights the importance of service quality and reputation and the benefits of forward integration and the development of synergies between marketing and other business activities.

This desire for control over the marketing channel reflects problems that come from the "heterogeneity" of services, which has led to service quality becoming a significant issue within services marketing (Fisk *et al.* 1993). Aaker (1989), for example, found that the service enterprise managers rated a "reputation for quality" above all other factors in achieving sustainable competitive advantage (SCA). While Soutar *et al.* (1996) suggested that education institutions can and should measure service quality, such measurement is difficult because of differences in consumer and producer perceptions and expectations (Gronroos, 1990; Zeithaml, 1988).

Organisational expertise/producer learning/experience

Bharadwaj *et al.* (1993) highlighted the importance of organisational learning and expertise as a source of competitive advantage. In education, for example, students select courses on the reputation (expertise) of teaching staff (Hughes, 1988). Winter (1987) has suggested that organisational learning will be a source of competitive advantage if the learning is "tacit" and if the underlying knowledge is complex (making imitation difficult).

Osbaldeston and Barham (1992) have argued that management development can become a source of competitive advantage. By linking management training and development to business strategy, management can become a way to reshape organisational culture, and implement strategies. Swiercz and Spencer (1992), who proposed that human resources, if managed correctly, provide

a valuable source of competitive advantage, echo this view.

A study of 190 senior managers by Day and Nedungadi (1994) identified four "mental modes" or "managerial representations of competitive advantage". The first of these (self-centered) is an inner directed orientation, with limited attention to the needs of customers or behaviour of competitors. Such managers were found to be prone to adopting less stable and coherent strategies. The second "mental mode" (competitor centered) led to the development of strategies that responded to competitors' activities. Their strategic development tended to be unstable and reactive, with minor adjustments being made in response to the actions of a small number of perceived major competitors. The third "mode" (customer oriented) concentrated managerial attention on the needs of the customer. Such managers did not actively track their competition but relied on customer feedback to guide strategy development. The fourth "mode" (market driven) attempted to balance between the customer and competitor orientations and led to greater stability and managerial consensus, as well as superior performance.

Organisation culture and innovation

Organisational culture has been defined as "the dominant values espoused by an organisation" (Deal and Kennedy, 1982), "the philosophy that guides an organisation's policy toward employees and customers" (Pascale and Athos, 1981), or "the basic assumptions and beliefs that are shared by members of an organisation" (Schein, 1985), although numerous other definitions exist (Smircich, 1983). Peters and Waterman (1982) argued that organisations with strong cultures or commonly shared values obtain superior performance. However, the ability of culture to be a source of competitiveness seems to be contingent upon the extent to which an organisation's culture "fits" the prevailing conditions within its external environment (Schein, 1984).

Managing culture for sustainable competitive advantage requires careful attention to be paid to the language and behaviour used within the enterprise, as well as to its values and beliefs (Fiol, 1991). The symbols used to define an organisation's structure and the behaviour of its members can also play a decisive role in defining its culture (Barley, 1983). Johnson (1992) describes corporate culture as a "web" of interrelated elements. At the centre is the Paradigm, which provides the overall frame of reference for the enterprise. Surrounding this is a range of elements, such as stories, symbols, power

structures, organisational structures, control systems and rituals and routines, which comprise the cultural web. Each of these elements has to be examined to achieve a complete understanding of the enterprise's culture.

The importance of organisational culture to sustainable competitive advantage has been outlined by Barney (1986), who noted that, while culture needs to be firmly based within the organisation, it should also be flexible to encourage innovation. Gronroos (1990) highlighted the need for service enterprises to develop customer oriented service cultures in which the organisation chart is inverted and customer and front line staff becomes the primary focus. The ability of culture to provide a source of competitive advantage is also linked to its ability to generate strategically valuable innovation through organisational learning (Williams, 1992). An enterprise needs to develop strong core values that emphasize innovation and flexibility if it is to develop sustained superior financial performance (Barney, 1986). Indeed:

Specific corporate culture or climate is important for innovation. The enterprises that seemed most successful in the realm of innovation were those with a relatively high degree of internal competition to achieve and a willingness to experiment with and reward innovation (Baran *et al.*, 1986, p. 23).

Innovation can be viewed as “the development and implementation of new ideas by people who over time engage in transactions with others within an institutional order” (VanDenVen, 1986, p. 590). It involves the generation of new processes and products and the implementation of these ideas in order to develop competitive advantage for the enterprise (McIntyre, 1982). Tushman and Nadler (1986) suggest that innovation can be incremental, synthetic or discontinuous. The first type involves gradual changes to products or processes; the second involves the combining of existing ideas in new ways while the third involves the creation of radically new ideas. Innovation is also strongly linked to risk taking (Norris, 1981). Innovation, therefore, involves not only new ideas and their development, but also change and risk.

An important element in innovation is creativity (Raudsepp, 1987), which requires information to be processed so the result is new, original and meaningful (Badaway, 1985, p. 29). Burgelman (1984) suggested that an enterprise seek to develop “internal corporate venturing” for this purpose, which may be achievable by empowering middle management (Kanter, 1982), or by forming

“innovation management task forces” that can motivate employees and implement strategies (Foster and Pryor, 1986). Creative organisations frequently have a climate in which the line between work and play is blurred (Sonnenberg, 1991). Senior management within such enterprises are supportive of subordinate staff and encourage autonomy and risk taking (Pearson, 1988). Such initiatives may be increasingly important within industries where product and process technologies have reached the limits of further development. Under such conditions investment in human resources through training and skill development can become a source of competitive advantage (Pfeffer, 1994).

According to Quinn (1980; 1985), successful innovation requires a market orientation, an internal management style (structure and culture) that fosters innovation and a “non-linear” planning process that is flexible and permits all functional areas to contribute to the process (Takeuchi and Nonaka, 1986; VanDenVen, 1986). Indeed, culture seems to be a critical variable in the innovation process (Baran *et al.*, 1986; Lorsch, 1986). Gresov (1984) suggests that culture and organisational structure are linked and that there is an inverse relationship between the homogeneity of an organisation's culture and innovation within that organisation. Of critical importance is the need to develop a balance between chaos and control (Quinn, 1985). To achieve innovation, the planning process (strategy formulation) needs to be “non-linear” or “holistic” (VanDenVen, 1986; Ansoff, 1987). This is consistent with Takeuchi and Porter's (1986) suggestion that marketing strategy must coordinate and link all aspects of an enterprise's activities.

Bharadwaj *et al.* (1993) noted the importance of the complexity of assets and the number of co-specialized assets. The more complex the assets needed to market a service, the more sustainable an innovation will be as a source of competitive advantage. This is also true for services in which the number of co-specialized assets is high. Competitors will find it difficult to emulate an innovation if the process is complex.

Information technology

Technology can be thought of as the “information, equipment, techniques, and processes required to transform inputs into outputs in the organisation” (Robbins, 1987, p. 125). Early research into the effect of technology on business performance focused on the impact it had on organisational structure (Woodward, 1965; Harvey, 1968), although Thompson (1967) suggested a link between technology and organisational

effectiveness. Since the emergence of modern information technology, the value of computers to the development of competitive advantage has been highlighted (e.g. Gerstein and Reisman, 1982). Information technology has been viewed as offering enterprises the ability to adopt “generic” positioning strategies. Within manufacturing, Computer Aided Design (CAD) and Computer Aided Manufacturing (CAM) have assisted in achieving cost leadership or differentiation positions (Parsons, 1983). For education institutions, information technology is emerging as a critical source of competitive advantage as the Internet allows them to offer their services globally (Ives and Jarvenpaa, 1996).

Porter and Millar (1985) pointed to the impact that information technology can have on the “value chain” and on buyer and supplier power, substitution threats and barriers to entry. The ability of information technology to make significant impact is contingent upon the level of information intensity within the value chain and the information content of the product or service being marketed. Cement manufacturing, for example, has low levels of information intensity within both the product and the value chain producing it. By contrast, banking has high information intensity within its product and value chains.

Earl (1988) emphasized the importance of management commitment to the effective use of information technology. Unless senior management is willing to support the implementation of new technologies and accept the risks associated with it, the value of such technologies may be reduced (Leonard-Barton and Kraus, 1985). Research into technology and innovation suggests that enterprises that adopt new technologies when faced by external threats can be more successful if they recognize the different strategic requirements associated with the new field (Cooper and Schendel, 1976). The effective use of information technology can be a source of sustainable competitive advantage, particularly when information is a critically important asset (Clemons, 1986).

This discussion suggests the following research propositions:

P7: The variables that strengthen the competitive advantage of an education institution within an international market are:

- the institution’s quality of image;
- the institution’s market profile;
- coalition formation;
- the degree of forward integration into the export channel;
- the organisational expertise and quality of staff;

- the possession of a client oriented/innovative culture; and
- the effective use of information technology.

Market success and barriers to imitation

The proposed model assumes that it is not possible to directly measure competitive advantage or sustainable competitive advantage. What can be observed are the manifestations of the factors that are usually translated into market success. The nature of market success varies from enterprise to enterprise. Bharadwaj *et al.* (1993, p. 87) suggested that the two major measures of success are “market place performance” (e.g. market share, customer satisfaction), and “financial performance” (e.g. return on investment, shareholder wealth creation).

An important aspect of sustainable competitive advantage is the ability of an enterprise to develop strategies that cannot or will not be imitated by competitors (Bharadwaj *et al.* 1993). Whereas market entry barriers are generic to the industry within which the enterprise operates, barriers to imitation offer the enterprise the ability to sustain competitive advantage in the long term (Lippman and Rumelt, 1982; Rumelt, 1984; Coyne, 1985; Dierickx and Cool, 1989; Reed and DeFillippi, 1990).

One barrier to imitation is “causal ambiguity” (Bharadwaj *et al.* 1993). This is the degree of ambiguity that exists over the causes of competitive advantage within an enterprise. According to Reed and DeFillippi (1990), the main determinants of causal ambiguity are “tacitness”, “complexity” and “specificity”. Tacitness relates to the accumulation of organisational knowledge and experience that is non-codifiable (Polanyi, 1962) and therefore difficult for competitors to understand and imitate. Complexity results from the nature of the interrelationships between the enterprise’s skills and assets (Nelson and Winter, 1982; Barney, 1991). Finally, specificity relates to the skills and assets that are specific to the transactions used in the production and delivery of a service within an enterprise for specific customers (Williamson, 1985).

Another barrier to imitation is “uncertain imitability” (Bharadwaj *et al.*, 1993), which assumes an enterprise’s resources and skills can be so complex as to be difficult to imitate with certainty (Lippman and Rumelt, 1982). A competitor may seek to imitate the behaviour of a successful enterprise but, if the scale and scope of the sources of competitive advantage are great, its ability to do so is uncertain.

A further barrier to imitation is an enterprise's "resources and skills stock" (Bharadwaj *et al.*, 1993). The accumulation of such stocks may offer an enterprise an advantage over competitors, while making imitation difficult if there is considerable time involved in building equivalent stocks. Dierickx and Cool (1989) identified three characteristics of this barrier, namely:

- 1 *Time compression diseconomies* – an enterprise may develop a reputation for quality that competitors will be unable to match in a short time period.
- 2 *Resource and skill mass efficiencies* – once an enterprise has accumulated a stock of resources and skills for competitive advantage, it is generally able to add to that stock more easily than its competitors.
- 3 *Interconnectedness of resources and skills stock* – if resources and skills are interconnected in providing competitive advantage, it is more difficult for imitation to occur, even if certain resources or skills are copied.

From this discussion the following proposition about the role of barriers to imitation in the development of competitive strategy can be suggested:

P8. Barriers to imitation impact on the sustainability of an institution's competitive advantage and the most likely barriers are:

- causal ambiguity;
- uncertain imitability;
- resources and skills stock.

Future research and managerial implications

The model outlined in this paper is significant because it offers an opportunity to fill a void in our understanding of how education institutions might successfully develop a competitive advantage in international markets, an area in which there has been only limited research. This is perhaps not surprising, as services and international marketing are relatively new academic fields and were not given serious consideration prior to the 1970s (Terpstra, 1987; Berry and Parasuraman, 1993) and academic interest in international education marketing is even more recent. Indeed, research into the sustainable competitive advantage of service industries in general is still at a rudimentary level and little applied research has been undertaken (Bharadwaj *et al.*, 1993).

The proposed model provides potentially valuable insights into current perceptions and marketing practices in the international education sector. Future research should test

the model using large-scale surveys and would seem to require the use of structural equation modelling procedures. Such analysis will need to be supported by case studies designed to explore examples of different types of institutions engaged in the industry. The proposed model offers a framework for strategic marketing planning for education institutions seeking to expand internationally. It also has potential applications for other professional services exporters.

For education institution managers and administrators engaged in international marketing, the model has several implications. It suggests that careful attention needs to be given to external industry and foreign market environments before selecting a generic positioning strategy. Recent political and economic upheavals in Asia that have threatened many of the export markets where education institutions sought to recruit students, reinforce the importance of such analysis. Further, the basis of developing a competitive advantage lies with the development of marketing strategies at a number of levels that will generate or enhance distinctive competencies. Key outcomes in this regard are likely to be the creation of an image of quality, the generation of a high market profile and development of offshore teaching operations, usually in coalition with overseas partners. The assembly and employment of suitably expert staff, supported by information technology and an innovative culture, are also likely to be vital parts of international strategy implementation.

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