



The Third Wave: Future Trends in International Education

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THE THIRD WAVE: FUTURE TRENDS IN INTERNATIONAL EDUCATION

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ABSTRACT

The international education industry, higher education administrators and managers and academic staff face very significant challenges in the next few years. The second half of the twentieth century saw the development of a global market in international education (Altbach, Kelly and Lulat 1985) that has changed many aspects of educational life. Following the Second World War, the flow of international students undertaking courses at all levels grew rapidly as developing countries sought to educate their populations (Scott 1994). By the end of the century, there were an estimated 1.5 million students studying internationally at the higher education level alone (UNESCO 1999). Driving this market expansion was a combination of forces that both pushed the students from their countries of origin (e.g. lack of suitable programs at home, rising per capita incomes) and, simultaneously, pulled them toward certain host nations (e.g. reputation of education systems, availability of courses, opportunities for employment and migration) (McMahon 1992). By the 1990s, the higher education systems of many host nations (e.g. Australia, Canada, US, UK and New Zealand) had become more market focused and institutions were adopting professional marketing strategies to recruit students into fee-paying programs (Mazzarol and Soutar 2001). For many education institutions such fees had become a critical source of financing.

Key words: international education, global trends, universities, offshore teaching programs.

THREE WAVES OF INTERNATIONALISATION IN EDUCATION

Three distinct waves of globalisation can be identified in the international education industry. The first involved students travelling to a host nation to study at a chosen institution. This was the usual model throughout much of the last century and remains common today. The second involved institutions moving forward into the export channel – usually through an alliance or coalition – and establishing a presence in international markets through ‘twinning’ programs (Smart 1988). This process of ‘forward integration’ became common in Asia throughout the 1990s, with many privately owned colleges providing an outlet for students to study a foreign degree in their home country (Prystay 1996).

New approaches have emerged recently. These involve the creation of branch campuses in foreign markets and the development of ‘on-line’ delivery of courses through information and communications technologies (ICT) (Mazzarol 1998). Whether this is a single third wave or two separate waves is unclear at this stage. The opening of branch campuses involves substantially greater investment and risk, but appears to be driven by

“home” governments that wish to enhance the quality of their local education infrastructure (World Trade Organisation 1998). Institutions may view ICT-based delivery as a lower risk, lower cost strategy to entering new markets. However, this medium is likely to be just as costly as conventional forms of delivery (Ives and Jarvenpaa 1996) and there may be limitations as to how widely it can penetrate global markets (Chandersekaran 1998).

THEORIES OF INTERNATIONALISATION AND MARKET ENTRY MODE

Research into the internationalisation of business organisations particularly that conducted in Scandinavian countries during the 1970s suggested an evolutionary and sequential build-up in foreign commitments over time (Johanson and Wiedersheim-Paul 1975; Johanson and Vahlne 1977; Juul and Walters 1987). Research in other countries, such as the United Kingdom (Buckley 1979), Japan (Yoshihara 1978), Turkey (Karafakioglu 1986) and Hawaii (Hook 1988) has supported this theory.

The incremental development approach to internationalisation, sometimes referred to as the “Uppsala Internationalisation Model” (Johanson and Vahlne 1977), suggests that a new foreign market entrant gradually becomes involved in a foreign market through a pattern of entry modes beginning with exporting, moving through the establishment of an international sales subsidiary and, finally, the establishment of offshore production facilities (Johanson and Wiedersheim-Paul 1975).

During the 1980s and 1990s, research into internationalisation suggested departures from such an incremental process as many firms sought to accelerate their entry into international markets (Norvell, Andrus and Gogumalla 1995; Sullivan and Bauerschmidt 1990; Millington 1990; AMC 1993). A contingency perspective emerged from this research, that included an eclectic paradigm and transaction cost analysis theory. These suggested that a business may decide to enter a foreign market through a variety of entry strategies, depending on their capabilities and/or the dynamics of the market environment (Williamson 1985; Anderson and Weitz 1986; Gatignon and Anderson 1988; Dunning 1988).

The change of pace in the internationalisation of businesses has been attributed to increased levels of competition within global markets, as well as the application of new technologies that enable more effective control of offshore operations (Badrinath 1994; Cavusgil 1994). It is also possible that government incentives and related initiatives have contributed to the acceleration of internationalisation (Yeo et.al. 1993).

Several theories have been suggested to explain firms’ choice of foreign market entry mode. The four most common foreign market entry modes are exporting, licensing, joint ventures and sole ventures (Agarwal and Ramaswami 1992). As all of these modes involve resource commitments (at varying levels), a firm’s initial choice of a particular mode is difficult to change without considerable loss of time and money. The foreign market entry strategy selected for particular countries is, therefore, a critical decision.

Dunning (1980; 1988) developed a framework for explaining the market entry strategy choice that discussed ownership, location and internalisation. Ownership relates to the possession of assets and skills. For example, an organisation’s asset power is frequently reflected in its size (Yu and Ito 1988; Terpstra and Yu 1990), multinational experience (Gatignon and Anderson 1988) and its ability to develop differentiated products (Anderson and Coughlan 1987). Location relates to such factors as market potential, which can be measured by size and growth (Khoury 1979; Terpstra and Yu 1990), and investment risk, which is associated with the economic and political conditions in a target market (Agarwal and Ramaswami 1992). Finally, internalisation is concerned with a firm’s ability to transfer ownership-specific advantages across national borders (Anderson and Gatignon 1986).

Larger organisations, with significant ownership advantages, have favoured sole or joint venture entry modes. Smaller organisations, that usually lack resources, have preferred direct exporting or joint venture entry modes, usually driven by a desire to reduce costs and risk. When there are high contractual risks, organisations with well-differentiated products are likely to prefer investment to exporting. However, when investment risk is high, export modes are preferred (Agarwal and Ramaswami 1992). The foreign market entry strategy decision requires an evaluation of four critical variables (risk, return, cost, and control) (Rugman and Verbeke 1992; Hill and Kim 1988; Goodnow 1985; Anderson and Coughlan 1987). This evaluation has been termed transaction cost analysis and it suggests that a firm will internalise activities it can perform at lower cost and will outsource activities when other providers have an advantage (Anderson and Weitz 1986).

THE INTERNATIONALISATION OF EDUCATION SERVICES

Erramilli (1990) suggested that there were *'hard'* and *'soft'* services and that this distinction was important in the development of marketing operations. Hard service providers can separate the production and consumption of their service (e.g. architecture), while soft service providers cannot (e.g. education). *'Hard'* services can be exported directly but *'soft'* services need some form of forward integration if an enterprise is to establish an international presence. Erramilli and Rao (1990; 1990) suggested services exporters can be divided into *'client following'* and *'market seeking'* firms. The first group exported because clients moved internationally and they were obliged to follow. The second group actively sought foreign market opportunities. On this basis, education can be classified as a *'soft'* service and most institutions engaged in international markets are *'market seeking'* organisations.

Cowell (1984) identified six foreign market entry strategies for service enterprises (direct export, licensing, franchising, joint ventures, acquisition and management contracting). Direct export can involve a service enterprise sending representatives abroad. However, in the case of education direct export has been a *'first wave'* approach, with students travelling from source to host countries. Licensing, franchising, joint ventures and management contracting strategies require an institution to move offshore or forward into its export channels, usually with an international alliance partner or as a coalition member. This is also often the case for acquisition strategies that, by foreign government regulation, usually require local coalition partners. "Forward integration" (moving offshore into an export channel) is a logical second stage (after direct export) in the internationalisation of education service providers. It can also offer considerable competitive advantage to institutions that embrace such strategies (Soutar and Mazzarol 1995).

In international markets, *'spatial pre-emption'* can be obtained through an appropriate foreign market entry strategy and, in turn, through the channel structure adopted. Because production and consumption are difficult to separate in services, the location of service delivery outlets is of critical importance (Allen 1988). For this reason, the *'pre-emption'* of strategic locations can be a source of competitive advantage within a service industry (Bharadwaj, Varadarajan and Fahy 1993).

According to Terpstra (1987: 333) market entry is *"one of the most critical decisions in international marketing"* as it sets the framework for channel structure and the level of control a firm will have over its marketing channel (Stern and El-Ansary 1982). Anderson and Coughlan (1987) noted that an *integrated* (i.e. joint venture) or an *independent* channel structure may be suitable. Determining which approach to take is a complex task, influenced by such factors as the level of intangibility within the service component and the age of the product category.

The inseparability of service production and consumption increases the need for service exporters to integrate forward into their marketing channel and establish *'foreign manufacturing facilities'* (Nicouland 1989). Because *'soft'* services, such as education, involve a high degree of *'consumer and producer interaction'*

producers need direct control and a presence, at least during the early phases of export development (Vanermerwe and Chadwick 1989; Erramilli 1991). Service exporters prefer to retain control over their export channel until their experience within a market increases. The degree of forward integration may also be a source of competitive advantage for service enterprises in international markets (Soutar and Mazzarol 1995). An empirical study using the Profit Impact of Market Strategy (PIMS) database found that forward integration increased service enterprises' market shares and had a significant positive effect on financial performance (Bharadwaj and Menon 1993).

Thus it would seem that education institutions seeking to achieve competitive advantages in international markets might benefit from forward integration. Not surprisingly, the offshore 'twinning' programs seem to offer benefits to education institutions (Mazzarol 1998). As already noted, forward integration through such coalitions has seen the establishment of 'twinning' agreements in which an institution enters a foreign market through licensing or management contracting modes. During the 1990s, such coalitions became highly popular internationalisation strategies for many Australian universities (Griggs 1993). However, this 'second wave' model can place significant pressure on an institution's internal resources, particularly staff (Mazzarol and Hosie 1997). Further, the quality control in such offshore programs can be difficult to maintain as such programs need to be run jointly by the partners. The licensee or joint venture partner must be 'respectable' within their home market and must provide high quality facilities and effective marketing support. Locally hired teaching staff must have similar qualifications and skills as the academic staff from the host institution and course content and teaching materials must be of equivalent standard as would be found in the host institution, which can be difficult to achieve (Nicholls 1987).

INTERNATIONAL EDUCATION IN ASIA – RECENT POLICY AND PRACTICE

A number of 'Third Wave' internationalisation strategies can be seen existing alongside 'First' and 'Second Wave' models within the Asia-Pacific region, particularly in Malaysia and Singapore. For example, in 2001 there were currently three branch campuses of international universities established in Malaysia with a further four in planning. In Singapore there were three such campuses with up to six in planning. Thailand had one branch campus with three under negotiation with similar developments emerging in Vietnam, Indonesia, China, Brunei, and Taiwan.

Over the first half of the decade it seems likely that Malaysia, Singapore, Thailand, China and possibly Vietnam will emerge as the main participants in the development of branch campuses. Education institutions seeking to develop such forward integration strategies will need to meet certain criteria in order to secure licensing rights from the education ministries of the respective host countries. Important will be the institution's commitment to developing the physical facilities and staffing resources of the campus, the quality and range of the academic programs, and number of students who are likely to enrol. Also important is the support that the campus can expect from local alliance partners who may provide land, facilities and cash investments.

In Malaysia, the Education Act (1998) permits foreign universities to establish branch campuses in-line with their policy to make that country a regional hub for education service provision. Neighbouring Singapore established similar policies in 1997 when the Economic Development Board (EDB) announced plans to attract the 'Top-10' international universities to set up in that country to create a regional education hub by 2008. Singapore's EDB also aims to enhance academic links with industry in order to assist the development of a 'knowledge-based' economy.

Although both Malaysia and Singapore were signalling interest in establishing themselves as regional education hubs from at least the early 1990s (Powell 1994), the Asian Economic Crisis of 1997 appears to have accelerated such considerations. For Malaysia the loss of both human and financial capital overseas as a result

of students studying overseas was becoming a serious drain on the economy. In 1997, there were nearly 35,000 Malaysians studying overseas, of which around one third were in Australia (UNESCO 1997). With only a small higher education sector, Malaysia had encouraged the development of twinning-college agreements during the late 1980s and early 1990s. By 2000 there were around 120 private colleges offering twinning programs and 30 with '3+0' programs in which all teaching was undertaken in Malaysia (Ministry of Education Malaysia 2001). Although these 'second wave' programs helped to alleviate some of the country's supply-side problems, there were concerns emerging over the quality and commercial focus of these programs. The government policy response was the Education Act (1998) enabling foreign universities to establish branch campuses. Australia's Monash University and Curtin University of Technology, and the UK's University of Nottingham reacted quickly to this policy change establishing branch campuses in Malaysia by the end of the century.

Malaysia and Singapore also appear motivated by the desire to compete actively in the Asia-Pacific region with existing education supplier nations such as Australia, Canada and New Zealand. The financial benefits of playing host to large numbers of fee-paying international students have been well demonstrated by such established players. It is therefore not surprising that new entrants to this lucrative international industry should emerge. Demand for education services within the Asia-Pacific region is forecast to grow strongly over the course of the 21st Century (Blight 1995). Despite the economic slowdown of 1997 international student enrolments in Malaysia-based institutions have increased steadily from a mere 5,635 in 1996 to 26,649 in 2000 (Ministry of Education Malaysia 2001). Such students were being drawn from over 134 different countries.

While these 'third wave' branch campuses represent minority players in the overall Malaysian education sector at time of writing, the outlook for them to grow over the next 5 to 10 years is significant. Much of this is likely to be driven by the superior quality of their programs and facilities. However, these campuses also have the strong backing of state and federal government agencies. For example, Curtin University's campus at Miri in the state of Sarawak was initiated by a group of private stakeholders, but later supported by the Deputy Chief Minister of State. This has become something of a 'pet' project for the Sarawak Government who have plans to expand the campus to around 10,000 students by 2010. The Curtin campus project is understood to have received a grant of RM500 million to assist with its development over the next ten years. The University of Nottingham branch campus in Malaysia has received strong support from the Malaysian Minister for Education who has personal links to that British institution, and Monash University's branch campus in Kuala Lumpur has the backing of a prominent group of Malaysian politicians.

All 'third wave' branch campuses in Malaysia have multiple stakeholders. The government and its agencies usually provide land and some financial support to assist in the initial start-up of the facility. Closely associated with this are local private investors. The foreign university partner is the other key stakeholder that usually provides its intellectual property, 'brand name' and human capital. The principal obstacle to the expansion of branch campuses in Malaysia is likely to be potential squabbling or rivalry between various influential stakeholders seeking to encourage the development of their own alliance partner. For example, while the Miri campus of Curtin University has received strong support from the Sarawak State Government, some rivalry has emerged with the Sarawak Swinburne Institute of Technology located in Kuching. Backed by the financially powerful Sarawak Foundation (which has been a major stakeholder in the Curtin project), the Swinburne campus has received government support in the form of around 300 student scholarships in 2000, and a lakeside location for its campus adjacent to the Sarawak State Library. It is understood that the Swinburne campus is to seek university status by 2002 with projections of up to 15,000 students by 2005.

While these Malaysian-based branch campus projects appear to have strong local government support they will still require a substantial period of time to fully develop and become financially viable. Unlike twinning programs, these branch campuses are not viewed as being primarily commercial in nature. The participating

institutions are expected to commit themselves to the long-term development of the campus, offering a comprehensive suite of teaching and research programs. Of particular interest to the Malaysian government are courses and research activities that serve to enhance the economic well-being of the country. At time of writing a strong focus was being placed on computer science, information technology, engineering and science, and business administration. The commitment to offering a full suite of academic programs is likely to place significant pressure on the resources of the foreign institution, particularly on teaching staff. Nevertheless, the trend toward such 'Third Wave' forward integration strategies appears to be motivating many Australian institutions to seek market access via this channel. The authors have been made aware of negotiations taking place during early 2001 between Malaysian partners and the Universities of Adelaide, Sydney, New South Wales, New England and South Australia.

Singapore's approach to this new wave of internationalisation in the education sector has been different to Malaysia's. As noted above, the Singapore EDB strategy has been to target the 'Top-10' world universities and seek to attract them to establish branch campuses in that country by 2008. This strategy appears to be working with seven leading institutions having established branch campuses in Singapore by 2001. These include John Hopkins University (offering Medicine and science); INSEAD (offering business administration); Wharton Business School (MBA programs); University of Chicago Graduate School of Business; Georgia Institute of Technology (Logistics management); Massachusetts Institute of Technology (Engineering); and the Netherland's Technische Universiteit Eindhoven. Negotiations are also underway with another US-based institution in the field of information technology, and a Germany university in the field of engineering. EDB has also approach universities in both India and China to consider establishing branch campuses in Singapore.

When compared to Malaysia, the approach taken by Singapore appears more strategically targeted and focused. Given the prestige of the existing range of branch campus alliance partners, it seems likely that Singapore will become a regional leader in this 'third wave' model. The participation levels of other Asian states in this process are less clear. Thailand is following a similar pattern to Malaysia and Singapore and may emerge as a significant market for twinning and branch campus activities. Under Thailand's Education Act (1999) foreign universities are permitted to participate in the education sector, thereby opening that country to both 'second wave' twinning agreements and 'third wave' branch campuses. China, while more controlled and potentially slow to emerge than some of its smaller counterparts, is also demonstrating a desire to embrace foreign education institutions establishing offshore programs and branch campuses. Vietnam too has indicated signs of governmental interest in opening up to foreign institutions, but like China may prove slow to develop. Both China and Vietnam remain relatively high-risk markets for foreign institutions seeking to establish viable 'second wave' twinning agreements. However, China may be more supportive of 'third wave' branch campus models, which are viewed as less commercially motivated and more likely to enhance the educational infrastructure of the country.

Taiwan offers the potential to travel a similar path to Singapore or Malaysia but is likely to be impeded by the lack of adequate English-language instruction. Political support for the opening up of the country's higher education sector to significant foreign competition remains polarised. Hong Kong, which once showed significant promise as a centre for twinning programs (Prystay 1996), has experienced only limited branch campus development. In 1998 the University of Western Ontario established a branch campus of its Richard Ivey School. Indonesia displayed some promise as a 'Second' and 'Third Wave' participant market in the early 1990s; however, ongoing economic and political instability may serve to impede development. Other obstacles apparent in Indonesia are compatibility of local education standards with those of Western systems, and relatively low levels of English language usage in the community. The development of Indonesia as a base for twinning and branch campus initiatives is likely to be slow over the next five years. Elsewhere India has begun to permit the establishment of foreign university programs with the formation of alliances between local and

overseas institutions. For example, the Indian School of Business, Hyderabad has commenced negotiations with the University of Pennsylvania's Wharton School of Business, and North Western University's, Kellogg School of Business.

IDENTIFYING THE DIRECTION OF THE "THIRD WAVE"

The maturing of the global education market can be seen in the slowing of the annual average growth rate for higher education students during the last two decades (Kemp 1990; Mazzarol and Hosie 1996). Although 'First Wave' recruitment continues and 'Second Wave' licensing and contracting remain important, there is a question over the future direction of international education. As already noted, the establishment of international branch campuses raises a question as to whether this represents a 'Third Wave' in education internationalisation (World Trade Organisation 1998). Possible strategic options for international education service providers include: 1) Opening branch campuses (usually in conjunction with joint venture partners), 2) partnering with private sector groups to provide 'corporate university' delivery models, and 3) Using ICT-based delivery to create 'virtual universities'. Each of these options, or some combination of the three, provides a potential 'Third Wave' internationalisation model.

The development of a branch campus is similar to the construction of a manufacturing plant in an international market. While it involves the greatest level of investment, and, therefore, risk, it may provide greater control and a better return on investment. There are many forces motivating the establishment of branch campuses but such an establishment often seems to be driven by the policies of the governments in the "home" country. Malaysia, for example, has long had a desire to become a net exporter of education services (Powell 1994). The lack of an adequate supply of higher education places during the 1970s and 1980s drove the demand for international education among Malaysian students, who are one of the largest national groups in the global market (UNESCO 1999). Faced with this 'brain drain' and a leakage of foreign exchange, the Malaysian government took action to build supply, initially through 'Second Wave' twinning arrangements (Ng 1995).

Parallel to the growth of branch campus models, has been the development of alliances between large corporations and universities or university consortia. These alliances provide such corporations with advanced training and education services, traditionally provided by internal training and development departments. The 'corporate university' appears to date from the 1980s, with the number of such institutions in America growing. The growth has been motivated by a recognition by many large companies that 'training' needed to be replaced by a more sustained investment in their intellectual and human capital. In 1999, Australia's Coles-Myer Limited formed an alliance with Deakin University to create a corporate university called the Coles Institute. This joint venture will offer Coles-Myer's 50,000 employees an opportunity to pursue higher education (Deakin University 1999).

Some alliances involve 'bricks and mortar' institutions, while others are virtual in nature. Large international firms, such as Toyota, Motorola, Dell Corporation, Sun Microsystems and Verifone, have established virtual institutions that deliver courses on-line. Given their global reach, these alliances offer the potential for university programs to be carried around the world into all the markets in which corporate partners are operating. The delivery of specialised courses, such as tailored MBA programs, to individual corporate clients is not new (Nicholls 1995). However, the model is likely to become more common as education institutions seek to secure financially beneficial contracts with corporate partners that can assist in opening new offshore markets.

The application of ICT to education is another major trend in the internationalisation of education services. One of the first major 'virtual university' models to be created was America's Western Governor's University. This organisation was established by the Governors of seventeen western State Universities and is allied to

such corporations as IBM, AT&T, Cisco, Microsoft and International Thomson (World Trade Organisation 1998). Its creation was motivated by a desire to provide university access to regional and remote groups within the United States that might otherwise have missed out on educational opportunities (Mazzarol, Hosie and Jacobs 1998). However, the Internet's ability to delivery courses globally has created an opportunity for such organizations to enter international markets without the risk of 'bricks and mortar' campuses. By the late 1990s, many leading American business schools were offering on line MBA programs and charging premium rates (Bartlett 1997) and this trend look likely to continue.

A further long term trend that is likely to emerge, at least within the Asia-Pacific region is the development of regional education 'hub and spoke' networks involving the branch campuses of Australian, North American and European universities based in countries such as Singapore and Malaysia. With a regional location that offers enhance accessibility; these branch campuses have the potential to develop collaborative synergies to serve as launching pads for the opening up of to some major markets such as China, Thailand or India. As the parent institution makes the investment into branch campus of research and teaching, the opportunity will exist for the faculty of these branch campuses to commence collaborative activities between each other. There is already evidence of this happening between INSEAD and Wharton Business School.

IMPLICATIONS FOR ADMINISTRATORS AND POLICY MAKERS

Several key issues emerge from this discussion that education administrators and host government policy makers who deal with education services must face. The first is that the internationalisation of education services appears to be developing in the same general pattern that has been found in other industries. As education institutions' international experiences increase and as they adapt to the pressures and policies of foreign governments, forward integration is likely to become a more common strategy. This is likely to take the form of an increasing investment into the export channel and an increase in control, or at least participation, by host institutions. Because 'Second Wave' twinning programs demand ever increasing commitment from academic teaching staff who have to visit international markets, 'Third Wave' branch campuses (with their own local faculty) offer a potential long-term solution. Alternative ICT based 'Third Wave' options may also offer long-term solutions but which is more appropriate may depend on how 'soft' an educational program is and on the costs of the development and maintenance of the ICT program.

It is also important to recognise that educational institutions that do not move beyond the 'First Wave' may not fail, but they will need to differentiate themselves to remain attractive to students who can undertake high quality, foreign supplied courses in their home country. Institutions that choose to remain on the first wave will have to find a niche position that can justify the extra costs of studying abroad. Such institutions are likely to have leading edge centres of research or teaching, which cannot be easily duplicated internationally. Institutions providing 'standard' programs are likely to find it increasingly difficult to attract 'export' students, as they are not providing enough additional value. Such a differentiation is consistent with international product life-cycle theory that suggested, as a market matures, low cost production moves to countries with cheaper infrastructure and labour, leaving high value-added production in the originating country. Institution's that retain a 'Second Wave' commercial twinning model may also find themselves squeezed by 'Third Wave' competitors (operating with a government imprimatur) that offer better quality programs at, or even below, the cost of the more commercial 'Second Wave' programs.

Institution's that adopt the 'Third Wave' branch campus model will need to invest substantially (in financial and human resources terms) before obtaining any return on that investment, an experience that some present providers know well. In the present climate of falling higher education resources, institutions will need to be very clear about their choices of location, alliance partners and market positioning. Further, they will need to

develop HR policies that will permit foreign branch campus staff to move freely into their domestic faculty. Such global HR policies have been major issues for many organisations and educational institutions are not likely to be any different. Further, as such branch campuses expand, it is likely that staff will move between a number of countries, leading to a need for the appropriate recruitment, development and support of a group of 'expatriate' staff. ICT-based delivery models seem likely to supplement, rather than replace, the branch campus model. It is unlikely that such media will remove the need for face-to-face (F2F) interaction, particularly in research and high quality teaching environments, where 'soft' service is the key. However, ICT can be excellent facilitating media and most institutions will need to invest in this technology if they are to remain internationally competitive.

CONCLUSIONS

It is clear that the internationalisation of education has created a new market place that is very different to the local markets of recent memory. Competition has changed, as have competitors and education administrators must come to grips with the risks and returns of complex international environments. Rapidly changing technology has also meant that educational institutions are faced with some very significant investment decisions, especially given the tight resource constraints most face. Further, the changing environment has led to significant changes in staff responsibilities and there is a real need for changes in HR policies to reflect these changes. Until this occurs, staff are likely to find traditional factors are used to decide such issues as tenure and promotion, even though their work loads and environment look very different. Third wave educational institutions will need to work carefully to address these issues if they are to survive the ride.

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