

***Managing professional intellect: A review
of the approach developed by Quinn,
Anderson, and Finkelstein, 1996.***

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Abstract

This paper reviews the article 'Managing professional intellect: Making the most of the best', by J. Quinn, P. Anderson, and S. Finkelstein, published in *Harvard Business Review*, March–April 1996, 71–80. The objective of the managerial approach presented by Quinn, Anderson, and Finkelstein is to leverage an organisation's professional intellect. The authors argue that this approach can give an organisation international competitive advantage. Foundational literature and theory leading to the Quinn et al. (1996) paper is traced. While the Quinn et al. approach is supported, implications for New Zealand management are discussed — including the need to depart from the traditional management approach commonly practised in New Zealand. Research needs based on the Quinn et al. approach are also highlighted.

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Introduction

Quinn, Anderson and Finkelstein (1996) assert that management of professional intellect has been given little attention by management researchers. This is despite their view that the most important executive skill is the capacity to manage human intellect and to convert it into marketable products and services. Quinn (1992) and Quinn et al. (1996) believe that the capacity to manage knowledge-based intellect (expertise) is rapidly becoming the critical executive skill of the current era. This view is also mentioned by Reich (1991) and Handy (1994). Quinn et al. (1996) postulate that an organisation's professional intellect operates on four levels. These are listed in increasing importance as

- cognitive knowledge
- advanced skills
- systems understanding
- self-motivated creativity.

Quinn et al. argue that self-motivated creativity, as the highest level of intellect, is vital to organisations. Without it, complacency can override intellectual leadership. A more recent publication, by Zajkowski, Dakin and Manley (2001), based on Kelley (1985), holds a similar argument. Kelley had identified the needs of knowledge professionals dissatisfied with pyramid management structures as 'independence, challenge, recognition and collegiality'.

Quinn et al. have also presented their observations of the most effective best practices used by professional organisations to develop professional intellect within a firm. Successful organisations are committed to recruiting the best professionals, and extensive resources are used for this purpose by leading firms. Recruited professionals are rapidly developed through intensive exposure to the real life problems faced by their organisation. Firms provide support in the form of planned mentoring, coaching, substantial performance rewards and on-the-job opportunities. This support is intended to encourage leading edge professionals through a period of very intensive learning. Once experienced, professionals are constantly and relentlessly exposed to increasing intellectual challenges forcing them to continually expand their knowledge base. Effective organisations regularly evaluate and selectively weed out those professionals who do not perform well enough.

Quinn et al. argue that companies must leverage intellect. When professionals are at the frontier, they are working on the most interesting problems associated with their field of knowledge. Professionals who are not at the cutting edge do not experience this. Thus it is important that organisations enhance professional intellect by boosting problem-solving abilities and adopting systems and software that support this. In addition, professionals must be encouraged to solve problems collaboratively and share professional knowledge in order to expand their organisation's collective professional intellect. Quinn et al. also argue that traditional central hierarchical management must be replaced with self-organising networks based around intellect. The traditional structures are useful for leveraging corporate assets rather than professional intellect. This aligns with the views of Handy (1995), Levitt (1991) and Senge (1990). Quinn et al. also support Mintzberg's (1994) inverted pyramid approach to leverage, which places the professional intellectuals at the top of an inverted pyramid and the chief executive at the bottom to ensure that organisations provide support for their professionals and maintain them and the company at the forefront of their fields. This structure is suited to an organisation that builds expertise by providing its professional staff with ongoing sufficient training, independence and constant updating on the latest and best practices to meet customer needs.

Quinn et al. also recommend that an organisation's most effective professionals should be involved in intellectual network webs. A number of organisations maximise leverage of their intellectual assets by using a form of networking described by Quinn et al. as the 'spider's web' (1996: 79). Examples quoted are NovaCare and Merrill Lynch's Mergers and Acquisitions Group. The latter involve teams of specialists from different geographical locations. The specialist teams are coordinated by client-relationship managers and each project becomes an intellectual focal point for the associated specialist team. The projects are generally quite complex and there is a real need for the sharing of specialist knowledge for project success. Merrill Lynch's project coordinators do not have direct hierarchical control over the specialist professionals. The current technology associated with Information and Communications Technology (ICT) provides excellent support for spider's web networking by organisations such as Merrill Lynch.

Managing professional intellect and knowledge management

The knowledge society strategies in the emerging knowledge-based economy are emerging disciplines of management that are of growing importance to New Zealand and are central to the work of tertiary education providers and those organisations wishing to form part of New Zealand's knowledge economy. An organisation's intellectual capital, consisting of employees' knowledge, mental ability (brainpower), skill knowledge (know-how) and continuously improving processes, is a source of competitive advantage to that organisation. Quinn et al. argue that their approach provides an organisation with principles that encourage and nurture the highest level of intellect and intellectual capital within it.

Critical evaluation

During the 1960s, Drucker (1967) was one of the earliest management academics to report that business organisations would evolve into 'knowledge creators'. In his 1993 publication, *Post-Capitalist Society*, Drucker suggested that we were entering the knowledge society and that knowledge would be the basic resource — not capital, natural resources or labour. Drucker emphasised the need for organisations to be continuously changing. This has been an ongoing concern of organisational learning theorists. Argyris and Schon (1978) referred to single loop learning (obtaining know-how) and double loop learning (establishing new premises, paradigms or perspectives) to replace existing ones. Nonaka and Takeuchi (1995) and others acknowledged that the creation of knowledge involves a dynamic interaction between these two approaches, which can be seen as a dynamic spiral involving the two forms. Senge (1990) argued that many organisations suffer from learning disabilities. He presented the learning organisation as a useful model. Senge proposed that the learning organisation has the capability for generative (active) learning and adaptive (passive) learning. He believed these were sustainable sources of competitive advantage for organisations. Senge argued that managers must

- adopt a 'systems' culture
- encourage personal mastery of their lives
- debate and challenge prevailing 'mental models'
- develop a shared vision
- encourage 'team learning' within an organisation.

Proponents of the resource-based strategy approach (Prahalad & Hamel, 1990 and Stalk, Evans & Shulman, 1992) argued that the structural approach to strategy as represented by Porter's competitive-forces model (1985 and 1990) was outdated. Apart from a Japanese approach presented by Nonaka and Takeuchi in 1995, the resource-based approach to organisational strategy, which implies that competitive advantage arises from an organisation's knowledge creation, has yet to provide an acceptable comprehensive theoretical management framework. In 1992, Quinn stressed the importance of directing strategy toward core intellectual and service capabilities or competencies, and leveraging of the organisation's intellect. He proposed a new management paradigm that might be described as 'the intelligent enterprise'. The objective of the intelligent enterprise is to manage — better than any other organisation

within its industry — a professional, innovative, service intellect (based on new knowledge) to produce a high service productivity for the benefit of the organisation and its clients. Quinn, Drucker, Toffler, and Reich are accorded high respect as prominent authors writing about the new 'knowledge society' (Nonaka & Takeuchi 1995).

Quinn's 1992 work, *The Intelligent Enterprise*, provided a considerable base for the 1996 paper, 'Managing the Professional Intellect: Making the Most of the Best, which he coauthored with Anderson and Finkelstein. The concept of the knowledge-based enterprise was, however, first published in Quinn, Doorley and Paquette's 1990 paper 'Technology in Services: Rethinking Strategic Focus', and Quinn and Paquette's 1990 paper, 'Technology in Services: Creating Organizational Revolutions'.

Each of these papers established the need for corporate management to acknowledge the maintainable strategic advantages derived from developing skill sets, experience, knowledge, market understanding, databases and distribution capabilities that other organisations cannot reproduce. These strategic advantages lead to demonstrable value for the organisation's customers. Quinn and Paquette also argued for the use of new organisation structures to empower organisations. These new structures included

- the use of an inverted hierarchy organisation
- fewer management layers
- a spider's web or network organisation.

Quinn and Paquette also predicted the difficulty many traditionally managed organisations would be likely to experience as they struggled to accept and implement the new organisation structures.

Mintzberg (1996) evolved the concept of the inverted pyramid even further to a circular concept comprising a number of sectors of inverted pyramids aggregated to make up a circle. Mintzberg suggested that professional organisations (a growing field) no longer have tops and bottoms, but inner and outer circles. He described his circles as having 'a middle of central management and around the outer edges those people who develop, produce and deliver the products and services — the people with the knowledge of the daily operations, (Mintzberg 1996 p.61). Mintzberg's circular organisational structure might be easily encompassed in the Quinn et al. approach to managing professional intellect.

Mintzberg (1998) also argues that most professionals (as knowledge workers, many of whom may have a PhD in their subject area) require little or no direct supervision from managers, as the professional structure and co-ordination, together with skills-training, reduce the need for overt leadership. Rather, covert leadership and inspiration are far more appropriate for professional organisations. This is in agreement with the Quinn et al. approach.

Imai and Itami (1984) had earlier proposed that the 'network' organisation operates with only minimal formal authority. This suggested that the network was not as focused as Quinn et al's spider's web approach, which proposed that each 'spider's web' network be unique in purpose and organisational power relationships (Quinn 1996: 79). In 1992, Quinn considered the spider's web an appropriate way to describe his approach because, metaphorically, the approach demonstrated the lightness and completeness of the web's interconnected structure. In this earlier work, Quinn was obviously influenced by the 1982 work by Peters and Waterman Jr, *In Search of Excellence*. An example of this influence is apparent on page 123, where Quinn refers to the 'skunkworks spider's web.' Quinn predicted the interaction of highly specialised individuals working on an ad hoc basis to innovate, without the control of formal organisational structures. This approach was posited by Peters and Waterman Jr (1982, p. 111) when they suggested that excellent companies 'use "skunkworks" to enable scrounging champions to innovate'.

Sakakibara, Numagami and Ohtaki (1989) described highly innovative companies as starburst or satellite organisations because they saw that these companies are able to constantly split off and sell off units of business. In a metaphorical sense, their approach was seen to be like shooting stars that peeled off from the core business competencies of their parent companies. Quinn et al.'s multiple contact points are very similar to Sakakibara et al.'s (1989) starburst organisations, which are in effect business centres or contact points for client needs. In the Quinn et al. approach, an organisation is depicted as a centre connected to clients at 'nodes' or multiple client contact points. However, with business mergers, global recession and corporate efficiency restructuring currently occurring, this bursting of the bubble management is no longer quite so fashionable. Quinn et al. now need to update this approach. (For examples refer: Japan Inc on the treadmill, 2001, June 9; Keep taking the medicine, 2000, November 18; Kunii, 2001, October 15.)

In addition, Quinn et al. appear to have been inspired by Itami and Roehl's 1987 publication, *Mobilizing Invisible Assets*, and refer to the 'leveraging' of professional intellect throughout their paper. In a business sense, the term 'leveraging' has a value creation association similar in some respects to the

Sakakibara et al. (1989) approach. Professional leverage is described as the value of the knowledge needs of individual clients multiplied by the number of contact points using that knowledge. Value creation is improved when experimentation at each centre increases systems understanding and stimulates self-motivated creativity. It is not surprising to observe a Japanese management theory connection in the Quinn et al. work, as in his 1992 work Quinn acknowledges sabbatical funding support from the International University of Japan. In particular, a number of case studies relating to Japanese corporations appear in the 1992 publication, in addition to studies of American corporations.

The Quinn, Anderson, and Finkelstein paper also appears to have been influenced by major contributions to the concept of the knowledge-based enterprise, particularly Senge's *The Fifth Discipline* (1992), Nonaka and Takeuchi (1991 and 1995), Mintzberg (1987), Schein (1993) and Garvin (1993). Mintzberg especially contributed to a major focal shift in management theory from strategic planning to an organisational learning approach. Although Mintzberg's approach is distinctly rigorous and contains considerable evidence, Argyris and Schon (1978) and Leavitt and March (1988) are distinguished classical management theorists whose works obviously initiated much of the initial thrust towards approaches that seek to manage professional intellect and organisational learning (although it is noted that the classical writers' arguments were not completely accepted by more recent management theory writers). Nonaka and Takeuchi (1995, p.6) are in agreement with Quinn (1992) and Quinn et al (1996) concerning leveraging professional activities to advantage business organisations. They argue that the key to Japanese company success is a dual internal and external activity that 'fuels continuous innovation'. Nonaka and Takeuchi suggest that the continuous innovation that arises from knowledge creation leads to corporate competitive advantage. This is what Quinn et al. expressed with their intellectual spider's web approach: organisations must be encouraged to leverage their professional intellectual assets to the limit.

Quinn (1992), Quinn et al. (1996), Drucker (1986 and 1993), and Toffler (1990) share the view that the economic and production power of modern corporations is based more on intellectual and service capability than on a firm's balance sheet assets of land, plant and equipment.

New contributions made by the Quinn et al. paper incorporate their four best practices for managing intellect:

- recruiting the best
- forcing intensive early development of professionals

- constantly increasing professional challenges
- evaluating and weeding-out underachieving professional staff.

The 1996 paper appears to have moved away from Quinn's earlier approach of leveraging knowledge and service-based strategies through strategic outsourcing. However, more recent publications by Quinn (1999, 2000) re-emphasise the need for outsourcing of intellectually-based systems, specialist knowledge and innovation from best-in-the-world suppliers. Yet Quinn maintains that an organisation's core-competence activities might well remain within the organisation.

Unfortunately, although Quinn et al. and others recognise that knowledge is the new competitive resource, they have not adequately addressed and examined the mechanisms and processes by which knowledge is created within an organisation to secure competitive advantage from its intellectual resource. The Quinn et al. approach is alien to traditional management styles. To realign an organisation to the Quinn et al. (1996) approach, the organisation, its management and its employees need to undergo complete adjustment and self-renewal. The process is imperative for all employees and directors, not simply for a selected few intellectual professionals within the organisation; that is, it is a normative ideal. Organisations that use traditional management approaches will need to unlearn their control style of managing and be willing to be more open to other means of managing professionals. To transform an organisation successfully, management must develop considerable support skills that utilise insight, intuition, innovation, knowledge, and cutting-edge experience.

Recent work by Zajkowski et al. (2001) prescribes that *knowledge workers* should be

- self-managing
- encouraged to set their own objectives and challenges
- able to organise projects that are compatible with their organisation's objectives

and that *Management* should

- provide encouragement for knowledge workers
- display collegial interest in the progress of knowledge workers' projects
- create an atmosphere of trust
- encourage self-evaluation of achievements.

This is an interesting normative development that is quite separate from Quinn et al.'s work yet makes comparable recommendations to those made in the Quinn et al. model. Both Quinn et al. and Zajkowski et al. recognise the need for organisations to resource conditions that support professional intellect/knowledge workers' performance, to the benefit of the organisation's intellectual (knowledge) output and business advantage.

To date there has been no real challenge to the Quinn et al. approach to managing professional intellect. The authors have presented examples of successful North American companies whose business practices support specific features of the Quinn et al. approach. For example, they state, 'Microsoft tries to force out the lowest performing five per cent of its highly-screened talent each year', and this supports their 'evaluate and weed' comment. More recent examples of organisations managing professional intellect include Dell and Cisco Systems.

Quinn et al. have provided anecdotal support and illustration for their approach, rather than using rigorous empirical testing and analysis. In reality, the acceptance of management constructs is far more problematic than simply appealing to scientific evidence. While it is recognised that creativity plays an important role in developing the knowledge-based intellect of an organisation, management progress can be achieved only by advancing challenging theories that can be tested in practice and either rejected outright or accepted in the form of common paradigm positions — Stablein (1996).

Quinn's more recent work (1999, 2000) has emphasised the need for organisations to stay current, to outsource innovation and to interact with best-in-the-world knowledge sources. This may be considered to be a fifth best practice variable within Quinn et al.'s managing intellect model. The paradox of this fifth factor, however, is that once an organisation develops best-in-the-world core competencies, it never outsources. The organisation may even take measures to defend and protect their essential competencies. For example, Honda does not outsource design, parts or key equipment.

The New Zealand context

Although the Quinn, Anderson, and Finkelstein theory has been developed from North American and Japanese business examples, in New Zealand the loss of authority and control could be seen by line managers as a potentially serious problem, particularly by those who are used to traditional authority and control. Such managers may not be prepared to support the concept of pyramid inversion. Professional employees may feel this lack of support interferes with their skunkworks spider's web of uncontrolled leading edge business initiatives.

New Zealand firms are much smaller and employ fewer professionals than most North American, Japanese and European businesses. In theory, an organisational culture change from a traditional approach to that espoused by Quinn et al. would be easier to implement in smaller New Zealand organisations than in larger overseas organisations (Robbins and Barnwell 1994).

However, a downside of having a preponderance of small businesses in New Zealand is that they tend, in the main, to be run by people without formal management training, creating a different organisational climate from that created by the multinational corporations cited by Quinn et al. In 1991, the Crocombe, Enright and Porter report found that some 65.5 per cent of New Zealand business managers had no formal (tertiary education) qualifications whatsoever, and many believed that management education was irrelevant to their business. There have been many changes in business management approaches since the time of that report. However, it is likely that managers who have adopted self-opinionated management styles or who do not have formal management training will have difficulty with the Quinn et al. management approach if it is introduced to New Zealand. The Crocombe, Enright and Porter (1991) report was also extremely concerned about the motivation, personal goals, limitations and commitment of managers employed in New Zealand businesses. The report expressed alarm at the limited incentives for individuals to seek training or to upgrade their skills. These factors would limit the adopting of an inverted organisational structure in many New Zealand businesses. The most difficult steps would be the Quinn et al. approach to

- informing managers (particularly self-trained or traditionally trained managers) of the Quinn et al. approach
- acceptance and adoption of the approach by managers
- retraining of all organisation personnel in the new approach.

Following 15 years of reform that has included deregulation, liberalisation and restructuring, New Zealand business organisations are aware of their primary economic role: to provide society with its needs as competitively and efficiently as possible (Deeks & Enderwick, 1994). Campbell-Hunt and Harper's (1993) study of the extent of management change to adjust to deregulation considered this had been basically limited. A later study by Campbell-Hunt and Corbett (1996) arrived at a more optimistic conclusion. Few firms displayed international brand or product leadership, but many are close to achieving strategies for sustainable advantage. One of the key determinants is that managers adopt involving and empowering relationships with employees within their organisations. The Quinn et al. model for managing and leveraging professional intellect has conceptualised the leveraging of professional intellect and an organisation's ability to advance problem solving and to develop leading edge knowledge. New Zealand firms interested in focusing on change for international competitive advantage would most likely welcome the adopting of the Quinn et al. approach.

There are obvious differences between New Zealand and Northern Hemisphere workplaces. For example, there is a distinctive cultural mix in the New Zealand labour force and it cannot be presumed that Northern Hemisphere workplace models will automatically be able to be applied or accepted in New Zealand. It is possible that there are as few Maori at managerial/professional levels as there are Hispanics or Afro-Americans at similar levels in the United States, Statistics NZ (2001) argue, however, that this proportion of Maori in management will increase in the near future.

The size and structure of New Zealand firms must be taken into account in any workplace reform (Ryan, 1994). Ryan indicates that 85 per cent (currently 87 per cent) [Statistics New Zealand, 2001] of organisations in New Zealand employ fewer than five employees. However, half of New Zealand's employed work for organisations that employ more than 50 staff.

Yet Beal (2000) reports that the US Small Business Agency claims that in the United States small businesses represent over 99 per cent. Whatever differences there are between New Zealand and the United States (for example) may be merely in definition. In both countries SMEs are a particularly valuable part of the economy.

In characterising New Zealanders, Ryan argues that they are hard-working and pragmatic. She expresses concern that New Zealand organisations have low levels of investment in training and developing employees. Ryan suggests that command structures within traditional New Zealand organisations have been based on the notion of management prerogative. This notion has empowered

management to initiate organisational changes without consulting employees. Traditional managers believe they can choose and appoint their own team leaders for any working groups involved in bringing about organisational change. There is potential for abuse of employees under this system. On the other hand, employees may regard their involvement in management-appointed problem-solving groups as a way for management to get employees to perform what should be management's role. Management, however, may regard the involvement of employees in organisational problem-solving as a waste of management time and employee resources. These are only some of the sensitivities, and each is a major study in itself. It seems that managers may need to make greater efforts to communicate with, and understand, their employees and to treat them more fairly, if the Quinn et al. approach is to be introduced into New Zealand.

The Quinn model is seen as a useful approach for organisations to adopt to encourage the development of their own professional intellect. It is a timely contribution to those organisations seeking direction for improving the New Zealand knowledge economy. The New Zealand Knowledge Wave Conference in 2001 was a crucial turning point as participants wanted to ensure that New Zealand's progress did not fall too far behind that of similar-sized countries such as Ireland, Singapore and Finland in the global knowledge wave.

Implications for New Zealand managers

How to raise business awareness

If the Quinn et al. approach to management of professional intellect is to be successfully introduced to commerce in New Zealand, corporate management will need to be thoroughly convinced of the merits of the approach and to be made aware of how the concepts are supposed to work in practice. One way to achieve this would be to invite Quinn to present the approach to New Zealand corporate directors chief executives and senior managers. A visit could possibly be sponsored by Industry New Zealand and the New Zealand Institute of Management or another professional management body, in association with a New Zealand university's management studies department and/or The Open Polytechnic of New Zealand's School of Management.

Potential interest groups

Having regard to New Zealand's need to develop its knowledge economy, potential interest groups for the adoption of the Quinn et al. approach would include: the IT industry, legal and accounting firms, hospitals, education providers, architecture and engineering consulting firms (and other large consulting practices), Government departments such as the Treasury, Reserve Bank, Department of Conservation, Ministry of Foreign Affairs and Trade, and Industry New Zealand, as well as large corporations such as the Fonterra Cooperative Group Ltd and other manufacturers that depend on the development of professional intellect, innovation and leading edge knowledge.

Industry New Zealand may have an interest in improving professional business best/smart practices as a means of supporting industry and regional development.

Requirements

The following need to be implemented if the Quinn et al. approach is to be successfully introduced into New Zealand organisations:

- clear and precise objectives that are politically acceptable to stakeholders, including management and staff.
- effective communication (Enderwick & Akoorie 1996). The Quinn et al. management approach is unlikely to be effectively realised if it is not clearly understood by those who are responsible for its implementation. To maximise the effectiveness of communication, dialogue should be encouraged between employees and those responsible for implementing the new approach to managing professional intellect.
- dedicated support for the change from top management, made apparent in words, actions, resources and commitment to implementation (Enderwick and Akoorie 1996). The resources may include financial support, human resources specialist training, and time. The organisation's reward system may need to be changed.
- employee involvement and consensus at the objective setting and implementation stages (Enderwick and Akoorie 1996). Unless employees accept ownership for the change then it may be fraught with difficulties.
- as firm a commitment by managers to a change in the organisation's goals as they expect from their staff (Ryan, 1994).
- effective control measures to support the change.

When an organisation is inverted, professionals need to be made aware that customers will regard the most important person in the company as the person with whom they have contact (Quinn & Paquette, 1990). Thus, professionals need to be skilled in customer relations, and management must ensure that all systems and staff support the work of the professionals. Even if Quinn et al. adopt Mintzberg's (1996) circular management concept instead of the inverted pyramid approach, front-line professional staff will need full corporate systems and staff support, directed by senior management.

Direction of management research

There is a definite need to proceed with longitudinal research to determine what major benefits accrue to New Zealand companies that adopt the Quinn et al recommendations for managing professional intellect, as distinct from those companies that continue with a more traditional management approach.

Empirical research, replication, and extension need to be undertaken to explore the limits of the theory. Such research can compare each of the Quinn et al. best practice statements with traditional management approaches. As well, studies associated with the following will be useful:

- the definition of professional intellect
- contributing theory
- intellectual spider's webs
- sharing of information
- measuring inverted or circular management structures against traditional pyramid structures
- restructuring organisations around their intellectual capabilities
- outsourcing of, and interaction with, the best information sources in the world.

These studies will provide comparative information about the usefulness of features of the Quinn et al. model as distinct from those organisations which do not encourage self-motivated professional intellect management. The Quinn et al. model may need some refinement to fit the New Zealand corporate context.

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