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Evolution of IWI Organisations for the  
Management of Commercial Fisheries  
Assets

Marama Findlay  
University of Auckland, [Marama.Findlay@jcu.edu.au](mailto:Marama.Findlay@jcu.edu.au)

# Evolution of Iwi Organisations for the Management of Commercial Fisheries Assets

**Marama Findlay**

Department of Economics,  
University of Auckland  
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## Summary

The following literature review is intended to provide a framework for a qualitative analysis of the factors influencing the evolution of the iwi organisations that own and manage commercial fisheries assets. The analysis will compare the empirical results with the factors that institutional economics suggests influence institutional design. The proposed research is intended to fill two gaps: firstly, it will enlarge the set of analytical tools that have been applied to understanding the development of the new iwi organisations; secondly, it will appraise a new, highly distinctive institutional form with a selection of theories from contemporary institutional economics.<sup>1</sup>

The paper contains an introduction to the new iwi organisations, a note on method and then surveys selected material from the institutional economics literature that seems most promising for exploring the evolution of iwi organisations. Although the paper is primarily a literature review, the notes on the new iwi organisations and research method are included to assist the explanation of how appropriate literature was selected. This stems from the view that successful research matches subject matter, method and theory. The paper closes by presenting a set of questions generated from the survey literature which will be used to guide the fieldwork.

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<sup>1</sup> The meaning of the word 'iwi' has been the subject of a number court cases. To date, the Courts and the Commission agree that in the context of the fisheries settlement iwi means traditional Maori tribe and that is how is used in this paper. (This decision is in the process of being appealed to the Privy Council.) The terms institutions and organisations are used interchangeably in this paper. In the literature, where a distinction is made, organisations are used to refer to the real world embodiment of one or more abstract institutions. 'Institutions are the rules of the game [and] organizations are the players'; North (1996:345).

## **Introduction to the subject matter of the research: the new iwi organisations which own and manage commercial fisheries assets**

The settlement of claims made by Maori against the Crown under the Treaty of Waitangi Act (1975) is stimulating the creation of new forms of institutions. Iwi are developing these institutions to hold and manage the assets that are being returned as a consequence of Treaty settlements. Assets are being transferred to Maori, by the Crown, in an attempt to settle grievances arising from Crown breaches of its Treaty of Waitangi obligations. The settlements are intended not only to remedy an injustice, but are also part of a strategy aimed at transforming Maori from protesters into enthusiastic and successful participants in the New Zealand economy. The development of organisations to manage returned assets effectively, in the owners' interests, will be critical to the strategy's success.

Significant resources are being transferred to iwi organisations as a consequence of Treaty settlements. The 1992 Treaty of Waitangi (Fisheries Claims) Settlement Act embodies the single largest settlement to date. The 1992 Settlement created The Treaty of Waitangi Fisheries Commission: Te Ohu Kai Moana, to hold the assets transferred by the Crown. Te Ohu Kai Moana was charged with developing a scheme for the further allocation of the assets to Iwi which it was agreed would be 'ultimately for the benefit of all Maori'.<sup>2</sup> The current book value of Te Ohu Kai Moana is \$415 million (net assets).<sup>3</sup> Te Ohu Kai Moana exercises control over more than 40% of New Zealand's individual transferable quota. The objectives, structure and operation of the organisations that will manage these fisheries assets will influence the future development of the fisheries sector in New Zealand.

Iwi are answering questions on the design of the new organisations as they recreate their structures. There is limited documentation however of either the practical or conceptual issues involved. Of the documentation that does exist only a small proportion is being undertaken by academics and none that I have encountered has been produced by economists. The current research was motivated by an interest in investigating the evolution of the institutional forms that iwi are developing to manage settlement assets and comparing it with the theories of institutional evolution presented in the economics literature. Fisheries were chosen as one example of the variety of assets that the new iwi organisations will own and manage.

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<sup>2</sup> The nature of this allocation model has been the subject of lengthy deliberation, consultation and litigation, which, as of June 2000, showed only tentative signs of resolution.

<sup>3</sup> Statement of Financial Position of the Treaty of Waitangi Fisheries Commission Group, Annual Report to Parliament for the year ended 30 Sept 99, page 34. There are considerable problems with valuing the settlements, as they include non market assets such as rights on statutory boards, and future commitments e.g., 20% of all quota species newly introduced into the QMS.

The new iwi organisations embody some unusual features in comparison with institutions more familiar to economists.

1. Membership of an iwi organisation is a right that comes with whakapapa (genealogy). It brings with it rights to participate in the political processes and to access benefits, where the nature of those benefits is determined in through a collective decision making process.
2. Exercise of membership rights is optional but rights are not transferable.
3. Although Iwi are associated with traditional land areas, the majority of tribal members now reside outside their traditional lands.
4. Iwi organisations have multiple objectives which embrace political, cultural, social and commercial dimensions. Responsibility for delivering on these multiple objectives are located in separate subsidiary units within the organisation. This gives rise to multiple layers of communication and accountability.<sup>4</sup>
5. Iwi organisations have a legal identity recognised by New Zealand law but this is built on a base of Maori cultural institutions and developments in one sphere will have repercussions in the other.
6. The ‘products’ of iwi organisations are, with few exceptions, collective not private goods. Even where an individual receives a private benefit such as an educational scholarship, this is not an automatic right, but rather is a result of a collective decision making process. I have encountered no iwi organisation that issues anything resembling a shareholder dividend (in contrast with land trusts formed under the Ture Whenua Act 1993 where individual shareholding and dividends are provided).

## **A note on the research method**

Subject matter, methodology and theoretical literature are closely interrelated in successful research. Delorme (1997:113) suggests that a good method is one that balances syntax (the relationship of the components of a model to each other), semantics (the relationship of the components of the model to the objects they are held to denote) and pragmatics (the relationship of between the model and its interpreters). Thus he proposes that:

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<sup>4</sup> The internal organisation is generally a pyramid structure, with a peak political body made up of elected representatives, who have a strategic oversight over subsidiary commercial and social development activities. The research will focus on two sub-entities, the commercial fisheries body, and the political body which provides strategic governance for the commercial fisheries. The political body is likely to have a similar oversight relationship to other commercial activities, but the detail of how these other activities are managed can be expected to vary across different kinds of assets e.g. land management strategies are likely to be different from fisheries management strategies.

'In the study of a phenomenon perceived as complex, for which there exists no available substantive theory or model, empirical investigation comes first together with abduction and the attempt at theorizing. Hence the priority is given to the object of study and to the semantics over the syntax in a first step.' (1997:117)<sup>5</sup>

My choice to use a qualitative, abductive, case study approach is consistent with Delorme's advice. The subject matter is complex and there is no theory in economics that has been specifically developed to explain the evolution of new iwi organisations. This suggests that the research should work from subject matter to theory.

I started my research with a background empirical knowledge and a history of participation with new iwi organisations in the management of their fisheries assets. This background led me to an initial investigation of the economics literature to identify theories of institutional design and change that might have relevance for the study of the new iwi organisations. My initial investigation revealed theories of a tentative nature, and an absence of theories with initial conditions close to the empirical situation I was researching.

The next step was to undertake a survey of methods and methodology relevant to the subject matter and literature I was working with. This survey reinforced my decision to approach the field work with the aim of staying close to the subject matter and to balance guidance from the theoretical literature with an openness to the issues that might arise in the course of the fieldwork. Such an approach requires open ended questions, as well questions seeking information with a bearing on theories judged most promising.

The results of the field work will be analysed to see what patterns emerge with respect to the factors shaping the evolution of the institutions. Knowledge of existing theories will influence the process of finding regularities in the chaos, without determining those findings. In keeping with the standard practice of qualitative research in the social sciences, the process of theory generation will consciously proceed in tandem with theory justification.

Specific outcomes of this work will be twofold: firstly, the research will produce a tentative theory of the factors shaping the design and evolution of iwi institutions for the management of commercial fisheries assets, and secondly, it will explore the usefulness of selected theories in institutional economics for understanding this design and evolution process.

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<sup>5</sup> The concept of 'abduction' is distinct from the philosophically problematic process of 'induction'. Since Hume, it has been accepted that it was not possible to logically prove a generalization by induction. As Blaug (1990:16/17) reports, 'Such [inductive] arguments may be called "nondemonstrative" in the sense that the conclusions, although in some sense "supported by the premises, are not logically "entailed" by them.' Blaug suggests that what is 'vulgarly labelled as "induction"' should for clarity sake be termed abduction: 'the non-logical operation of leading from the chaos that is the real world to a hunch or tentative conjecture about the actual relationship that holds between the set of relevant variables.' Peirce called this same process 'abduction'; see Hodgson (1997:145).

## **Choosing a literature for exploring the evolution of the new iwi organisations**

The nature of the subject matter and methodology chosen for the research suggest some broad guidelines for the types of theories that might be useful. These guidelines, which are outlined below, were used in my sifting of the literature.

Firstly, as noted above, the characteristics of the organisations I am studying are significantly different from anything encountered in either the theoretical or empirical literature. This suggests a need for high level theories or concepts which are formulated for organisations in general, rather than detailed, tightly specified formal models, which are assumed to resemble closely the research subject matter. A second point about new iwi organisations that is important when sifting the literature is that they are multi-functional. This also suggests theories that are held to have relevance for organisations in general, or the use of narrower theories for exploring sub-entities within the overall organisation. For example, theories that assume a profit motive might not be relevant for the whole organisation (which is not profit motivated) but they may be useful for looking at that sub-entity which is explicitly charged with making a profit. A final criterion indicated by the subject matter, is the need to identify theories about organisational design and change. While discussion about norms, property rights, or contracts might provide insights to aspects of the internal functioning, what the research is primarily concerned with is theories that offer explanations about the evolving design of whole organisations.

### **Institutional economics**

Commenting on the growth of the economics of institutions, Mathews (1986: 903) noted that:

‘A body of thinking has evolved based on two propositions:

- (i) institutions do matter, [and]
- (ii) the determinants of institutions are susceptible to analysis by the tools of economic theory.’

Mathews was correct in his observation that economics now encompasses a substantial amount of work concerned with the origins, nature and impacts of institutions. The body of institutional economics literature is, however, one of diverse and uncoordinated limbs. It includes game theories of the evolution of norms; analyses of the emergence of property rights and common law; public choice analysis; contract and agency theories; the economics of co-operatives; transaction cost economics; institutional economic history; Austrian and neo-Schumpeterian evolutionary theories; and competency models of institutions.

North argues, in defence of Mathews first proposition, that institutions matter because they determine the incentives facing economic actors and because of this they alter

economic outcomes. From an historical viewpoint, North considers that '[t]he culmination in the stock of knowledge has largely been irreversible throughout history, but human economic progress has not ... it is the successes and failures in human organisation that account for the progress and retrogression of societies' (1981:59). North suggests that institutions are critical to productivity because increased production requires specialisation and exchange, exchange requires rules and rules require enforcement (at least to the point where the costs of enforcement are outweighed by the benefits).

Given the diversity of the institutional economics literature there is considerable debate about how it should be organised. For example, in September 1997 the 'International Society for the New Institutional Economics' held its inaugural conference. A report on the conference announced that 'the Society seeks to bring together scholars from many disciplines and from countries all over the world who are working on transaction costs, contracting, political rules of the game, the rules of law, norms and culture, and who pursue these interests using standard scientific methods. ... [but that] despite this rather broad outline, the center of interest of the Society will remain the approach to economics associated with transaction-costs, property-rights, and public-choice analysis.' [Furubotn, E. G. and R. Richter (1997a: 780)]

At the outset of the literature review, the intention was to use the work within the rubric of new institutional economics. As reading progressed, however, the theories that appeared most promising were frequently classified outside the ambit of the new institutional economics. Eschewing a habit of doctrinal purity, the literature review has been prepared to consider any economic theory that is concerned with institutions and the term 'institutional economics' is used to refer to this diverse body of work.<sup>6</sup> After a broad and shallow trip through the institutional economics literatures, the review pursues in depth those theories that seemed most promising: neo-Schumpeterian evolutionary theories and competence models of institutions. These will be the primary guides in traversing the empirical material gathered in the course of the fieldwork. The results are presented below.

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<sup>6</sup> This is not the way 'institutional economics' is generally used in the literature, where it refers to the work on the 'old American institutionalists' such as Veblen, Mitchell Commons, and Ayres (Rutherford 1994:1). Indeed, the 'new' institutional economics adopted the adjectival qualifier in order to distinguish itself from this literature. Given the current turmoil in the terminological debate however, I feel forced and justified in falling back on my own definitions. I came across no term that was used to refer to all the economics literature concerned with institutions, so I use 'institutional economics' for this purpose despite its other uses. I do not imply by this use any great commonality in approach, apart from a broadly defined subject matter.

As an example of the current confused state of the terminology, the only thing that seems to be unequivocally included in 'new institutional economics' is Oliver Williamson's work, presumably because he coined the term. Groenewegen and Vromen (1997:34) note that when Williamson used the title 'new institutional economics' in his 1975 book, the term 'neo-institutional' had already been used to refer to the followers of the 'old' institutionalists (Galbraith and Myrdal following Veblen, Commons, and Mitchell) who were decidedly further from neo-classical economics than Williamson was prepared to go. Eggertsson (1990:6) however, contrasted Williamson's work with neo-institutional economics using the latter to refer to literature that fully retains neo-classical core assumptions (which Eggertsson did not consider that Williamson did, most notably because he assumes bounded rationality).

## **Defining Institutions and Characterising Theories of Institutional Change**

Most common in the literature, is the conceptualisation of institutions as repeated patterns of behaviour. Langlois (1995:1) argues for example that ‘the fundamental concept of an institution ultimately boils down to the idea of recurrent patterns of behavior – habits, conventions and routines.’ Sjöstrand (1995:35) considers that institutions do not simply provide the structure for action ‘they constitute generalized regularities in the organising activities themselves’. North (1986:231) suggests that institutions are ‘regularities in the repetitive interactions among individuals. They provide a framework within which people have some confidence as to how outcomes will be determined. ... they are the customs and rules that provide a set of incentives and disincentives for individuals’.

The term institutions is commonly used both to refer to behavioural regularities and to the rules that give rise to the regularities. I consider it more intuitive to restrict the term to the actual pattern of behaviour. Thus, where a rule is being continuously ignored, the institution is the repeated action of non-observance (rather than the rule, which is being ignored).

A feature of institutions conceived of in this way is that they are not just constraints, but also enabling, because they increase predictability by co-ordinating and simplifying interaction. The dual nature of institutions as both constraints and enabling factors is evident in some theories of institutional change where existing institutions form the building blocks from which new ways of acting can be crafted. Campbell (1997:26) provides an example when he argues that ‘On the one hand, actors creatively recombine and extend the institutional principles at their disposal to devise institutional solutions to their problems. In this sense, already existing institutions are enabling because they provide the technical and symbolic means with which actors build new institutions as active subjects. On the other hand, the relative availability of different principles also constrains in a probabilistic sense the range of solutions that actors are likely to envision.’

The term institutions is used to include a very broad range of phenomena, and it is frequently sub-divided in an attempt to give greater clarity to discussions. An example is the distinction made by North between formal and informal institutions. Informal institutions are patterns of behaviour such as norms, customs and habits, which are either self enforced (internalised) or enforced (encouraged) by a second party. Formal institutions are behavioural regularities resulting from laws, regulations and legal arrangements which are enforced by a third party (cited in Sjöstrand 1995:32). Another widely utilised distinction made by North is between institutional arrangements and the institutional environment. The institutional environment comprises the ‘fundamental political, social and legal ground rules that establishes the basis for production, exchange and distribution’. A specific institutional arrangement is ‘an arrangement between economic units that governs the ways in which these units can co-operate and/or compete’ (cited in Williamson 1993:53).



Despite the broad definition of institutions outlined, most theories restrict themselves in practice to a smaller, less diverse subset of institutions. They also make different assumptions about the relationship between institutions and human actors. Rutherford (1994) provides a useful framework for characterising different kinds of institutional theorising, in a comparative study of new and old institutional economics. The five contrasts he discusses are;

- individualism and holism;
- evolution and design;
- rationality and rule following;
- efficiency and reform;
- formalism and appreciative theorising.

### ***Individualism and holism***

A key characteristic that differentiates institutional theories is whether they see a one directional relationship, with individuals creating institutions, or whether they also allow institutions to influence individuals motivations and preferences in a process of socialisation, in addition to acting as constraints. While the one way influence is characteristic of more orthodox parts of the institutional economics literature, writers such as North acknowledge the reciprocal relationship. Rutherford suggests that a realistic theory has to allow for both possibilities even though this complicates the theorising considerably.

Knight provides the following metaphor of the reciprocal influence of individual choices (which arise from 'wants') and institutions (where 'economic activity' can be taken to include economic institutions): 'Wants are usually treated as the fundamental data, the ultimate driving force in economic activity, and in the short term view of problems this is scientifically legitimate. But in the long run it is just as clear that wants are dependent variables, that they are largely caused and formed by economic activity. The case is somewhat like that of a river and its channel; For the time being the channel locates the river, but in the long run it is the other way round.' (Knight cited in Hodgson 1989: 262/3)

### ***Evolution and design***

There is a distinction made in the literature between institutions that are the result of deliberate human choice and those that arise spontaneously 'as the result of human action but not of human design'.<sup>7</sup> Most theorists deal with only one kind (or at least, only one kind at time), although many acknowledge that both exist. The important implication of the dual origins of institutions for empirical work is that 'how an organization actually operates and the results it does achieve will depend on much more than the components that are deliberately designed. Organizations, too, develop their own informal rules,

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<sup>7</sup> This phrase is attributed to Hayek, paraphrasing Adam Ferguson. Hayek's view was that '[t]he structure of prevailing institutions is far too complex for human beings to comprehend, hence there is no way people could actually have designed them.' Nelson (1995:82).

traditions and customs. Corporate “cultures” can vary widely. The informal rules that make up these cultures may be extremely important in the functioning of the organization, but were not designed by anyone.’ (Rutherford 1994:90)

Agassi’s (1975) ‘institutional individualism’ is a useful example of how one might conceive of a reciprocal relationship between institutions and individuals, and the possibility of both designed and spontaneous institutions. In institutional individualism both society’s institutions and the individual are considered primary, in the sense that neither is reducible to the other. Only individuals have aims and only individuals can act purposefully, but they are both constrained and conditioned by the institutional environment. Collective institutions (firms, the state, culture) do not have aims and interests of their own, but they do have their own dynamics which cannot be reduced to the intentional actions of individuals, but are the cumulative result of the intended, unintended and indirect outcomes of individual actions.

### ***Rationality and rule following***

Another characteristic which distinguishes theories is their conception of choice. None of the institutional economics theories I have come across assume a ‘perfectly rational’ actor, in the sense of an individual who has a complete information set and unrestrained computational capacity. Indeed, one of the few widely agreed matters in the literature is that institutions are useful because human rationality is bounded. Institutions are needed because there are limit to the amount of information an individual can acquire and process so that the range of probable futures has to be reduced to a manageable number in order to make choice possible. In a world of infinite possibilities the boundedly rational actor can pick but not choose.<sup>8</sup>

The extent to which rationality is limited and the methods of choice that individuals employ varies considerably between the different parts of the institutional economics literature. In the competency and evolutionary theories that I consider most compelling, much of what individuals do follows routines where action is partially automatic. The model of rationality is linked to the balance between holism and individualism. Where individuals follow routines, these may be practices they have chosen to learn in order to function more efficiently, they may be customs and habits they have absorbed unconsciously, or they may be some combination of both.

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<sup>8</sup> It has been argued that the use of routines are fully rational, given uncertainty and limited cognitive capabilities. It is true that the underlying explanation that economists give for routines refers to their role as economising devices. The difference between boundedly rational and perfectly rational decisions, however, is that the former lead to outcomes which are satisfactory, whereas the latter lead to outcomes which are optimal. To make an optimal decision in a world of costly information and thought, one would stop collecting new information, or stop deliberating, when one *had calculated* that the costs of further efforts would outweigh the benefits. However, in a world of bounded rationality, one cannot know for certain what the costs and benefits of further information or deliberation would be. Rather, the boundedly rational actor makes a *judgement* about the costs and benefits (implicitly or explicitly), and makes their decision to halt search or deliberation based on this judgement. A judgement may be better or worse, but it is never optimal. Nelson and Winter (1982:255) summarise this by saying: ‘Our basic point is that firms cannot hope to find optimal strategies...[s]ince all the alternatives cannot be considered...’. See also Rutherford (1994:70).

## ***Efficiency and reform***

Rutherford uses this title to discuss normative views on institutional change, that is, how one should evaluate institutional change and how real world institutions measure up. There is divergence and controversy in institutional economics on this matter. There are institutional economists who attempt to use a Pareto optimum type efficiency criterion, but because institutional change usually involves redistribution of costs and benefits, and because compensation is costly, Pareto optimality is ill suited to the evaluative task. (The factors which make institutions important are the same factors which make redistribution costly.) This paper avoids discussing normative issues explicitly. In my research I may comment on the adequacy of particular institutions to particular ends, but debate on their social optimality is outside the scope of the study.

## ***Formal and appreciative theorising***<sup>9</sup>

There is a wide variation in the methods and methodological underpinnings in the institutional economics from the fully formal methods used by some game theorists, to the assertively holistic, qualitative methods of some of the old institutionalists. In comparing formal and appreciative theorising Nelson and Winter (1982:46) suggest that '[i]n its role of providing a framework for appreciation, a theory is a tool of inquiry, and in skilful applied research that tool is used flexibly, bent to fit the problem, and complemented by any other tools that happen to be available and that appear to be useful. *The focus is on the endeavour in which the theoretical tools are applied.* In contrast, when economists or other scientists are pursuing the formal development of a theory, or undertaking empirical work as a specific check on theory, the focus is on improving or extending or corroborating *the tool itself...*[and] in a well-working scientific discipline, the flow of influence is not only from formal to appreciative, but in the reverse direction as well.' [emphasis added]

Nelson and Winter suggest that it is possible to find examples of useful and irrelevant theorising of both formal and appreciative styles and that both styles have a place. It is implied in the above quote (and explicitly argued by many) that appreciative theorising has more chance of being empirically rigorous and relevant and more difficulty being logically rigorous and coherent. The choice of method involves a trade off which should be guided by the aims of the research and the advice quoted earlier from Delorme, that in complex situations where there is no demonstrably applicable model, priority should be given to subject matter and semantics.

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<sup>9</sup> Rutherford's heading is actually 'Formalism and anti-formalism', but I consider it unnecessarily dismissive to 'informal' methods to define them in contra-distinction to formalism. The term 'appreciative' is due to Nelson and Winter (1982:46). A full discussion of methodology and methods is outside the scope of this paper and will be covered in a separate chapter of the thesis.

# A Competency View of Organisations and an Evolutionary Model of Institutional Change

## *Boundedly Rational Individuals and Routines*

Evolutionary models of institutional change are built on boundedly rational models of human behaviour. In economics, the concept of the boundedly rational actor is associated with Herbert Simon (1955, 1957, 1959). Simon argued that in the real world, decision makers could not acquire all the information they needed to make perfectly rational decisions and that even if they could assemble it, they did not have the computational capacity to process it all. In a world of incomplete information, where the mind is a scarce resource, bounded rational individuals employ routines for making decisions and performing tasks. Routines are employed because, '[t]o gather the information and to do the calculation implicit in the naïve description of the rational choice model would consume more time and energy than anyone has. ... Anyone who tried to make fully-informed, rational choices would make only a handful of decisions each week, leaving hundreds of important matters unattended. With this difficulty in mind, most of us rely on habits and rules of thumb for routine decisions.' (Rutherford, 1994: 68, citing Frank 1987).<sup>10</sup>

Nelson and Winter (1982:73) describe a routine as 'a capability for a smooth sequence of co-ordinated behavior that is ordinarily effective relative to its objectives, given the context in which it normally occurs'. Many of the action steps in the routine are essentially automatic according to Nelson and Winter and involve a high degree of tacit knowledge. An actor is employing tacit knowledge when the action is being carried out faster than it can be consciously directed, causation is unknown, or causation is too costly to be fully articulated. Where tacit knowledge is being used choices are being made without being articulated and indeed, a shift to making choices consciously may impair performance. Driving a car on 'auto-pilot' or playing sport are examples of the use of routines with a high degree of tacit knowledge. A characteristic of tacit knowledge is that it is acquired and retained by 'doing'.<sup>11</sup>

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<sup>10</sup> Although Simon is the name most commonly associated with bounded rationality, the concept is used by other writers. For example, as early as 1950, Alchian (p218) suggested that in situations of uncertainty 'modes of behaviour replace optimum equilibrium conditions as guiding rules of behaviour'. Simon's view on boundedly rational decision making draws heavily on the development of cognitivism in psychology, where an individual has inborn interpretative frameworks through which phenomena in the external world are viewed. Frameworks are adapted as new external phenomena are encountered (Rizello, 1997:106).

<sup>11</sup> Nelson and Winter (1982) actually use the word 'skill' when referring to individuals, as distinct from 'routine' which they use in the context of organisations, where '[i]t may refer to a repetitive pattern of activity in an entire organization, to an individual skill, or, as an adjective, to the smooth uneventful effectiveness of such an organizational or individual performance'(p97). I use the word routine for both individuals and organisations to emphasise the similarity in both contexts (while acknowledging that they are not identical). As discussed here, routines are a subset of institutions generally (recalling that institutions are 'regularities in behaviour'). Routines can be ascribed to an identifiable individual or group and are employed to carry out a particular task. The word 'competency' is used here to emphasise the outcome of the routine, or what it is that the routine enables the group to achieve. Nelson and Winter's (1982) discussion of skills and routines draws heavily on the work of Michael Polanyi.

Routines may be learnt from others, in which case they will come with prior social testing and they are also subject to personal testing and revision. If a routine no longer delivers a satisfactory outcome because the individual has revised their standards or because external circumstances have changed, the actor will seek to modify the routine by innovating or by imitating routines used by others. Modified routines that are successfully employed in meeting the standard will be retained. The incremental revision of routines in the light of revised objectives, new information about an easier way of achieving the standard, or poor performance, constitutes a process of adaptive learning.

Routines deliver outcomes which are judged satisfactory, rather than optimal, and their use is sometimes referred to as 'satisficing behaviour'. With optimal behaviour, all alternatives are known and ranked and the best is chosen. With satisficing behaviour, criteria exist to define a satisfactory outcome and the option chosen will meet these criteria (Kay 1997:12).

### ***Organisations, Routines and Competencies***

The shift from boundedly rational actors, to a competency view of organisations and an evolutionary model of institutional change, is based on the argument that groups of actors also employ routines and use adaptive learning processes to modify these routines. Thus, '...the individual acts in situations of problem solving by enacting processes of imitation of already tried procedures, or generating new routines. Simplifying, we can state that firms, too, act using more or less the same mechanism.' Rizello (1997:98)

The routines that an organisation employs involve a high level of tacit and social knowledge. As with individuals, tacit knowledge exists when a group has learnt to perform a task, but knowledge of the interactions required are not fully articulated or consciously employed. Social knowledge refers to that which is held in common, and like language, is valuable because it is shared. Tacit and social knowledge assist with both co-ordination and incentive alignment and are worth more than the sum of individual knowledge because they are shared and agreed within the group. Routines are described as embodying the organisational memory and the internal political equilibrium of an organisation.<sup>12</sup>

The competency view considers that an organisation is defined by the routines it is able to perform to carry out particular tasks, whether the organisation is a firm, a sports team or a community group. The shared character of group routines makes change more difficult for a group than for an individual because knowledge and control is dispersed. In both firms and individuals routines can be viewed as economising devices, where the flexibility of deliberate choice is traded for ease in carrying out the routine. Indeed, for some authors it is the routinization of activities which is critical to expansion, as it frees

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<sup>12</sup> Nelson and Winter (1982:105) offer the following example of the value of a routine arising from its being shared and agreed. 'Without the crane operator's ability to interpret the hand signal for "down a little more" and to lower the hook accordingly, the abilities to perceive the need for the signal and to generate it are meaningless.'

up deliberative managerial resources. Dispersion of control in the firm means that the balance between deliberative and routinised activity is more heavily weighted toward the latter, compared with the individual (Nelson and Winter 1982:125). This means that reintroducing deliberation, as is required when routines are to be altered, is correspondingly more expensive.

The tacit knowledge embodied in an organisation's routines makes the routines difficult for others to imitate or trade and this accounts the organisation's persistence in the competency view. The competencies that result from the most difficult to imitate routines are sometimes referred to as the 'core' of the organisation, in contrast those more easily imitated which are 'ancillary' [Langlois 1995; Foss and Knudsen 1996:10]. Routines may be the target of replication by the same firm, or imitation by another, but their high component of tacit knowledge and automaticity make imitation a difficult and uncertain process.<sup>13</sup>

### ***Nelson and Winter's evolutionary model of economic change***

Nelson and Winter's (1974, 1982) evolutionary model of economic change is an example of a competency model of the firm and an adaptive model of firm learning. In Nelson and Winter's model firms have operating routines for producing goods, routines for modifying the level of capital stock in response to profit levels, and routines relating to innovation. The decision rules embodied in routines are not optimal but they generate improvement with respect to the underlying firm objective which is to generate profits. Firm routines involve a double loop feed back system with a search rule governing technological change, which is itself subject to adaptive learning and modification over time.

Learning and improvement result from the routine relating to innovation. Motivated by a desire to make profits, firms stick with existing production routines and the technological processes they embody, provided these generate profits above the target level. If returns fall below the target level, firms begin a probabilistic search for new technological processes. As they come across new technological processes by innovation or imitation, these are assessed and adopted if expected returns exceed the target. The new routine is retained if the expected returns are realised.

Firms capital stock is reduced by depreciation and augmented by profit so firms with successful routines expand and their routines become more widely used internally. By contrast, firms with unprofitable routines are unable to maintain their capital base in the face of depreciation and are eventually driven from the market. The use of a firms successful routines may also increase if they are observed and successfully imitated by

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<sup>13</sup> Langlois argues that the 'core' of the firm consists of capabilities which cannot be duplicated, bought or sold. At the core of the firm the 'make or buy' decision of transaction cost economics is irrelevant. '[T]he business firm arises because it can more cheaply redirect, co-ordinate, and where necessary create the capabilities necessary to make innovation work.' Langlois (1995:3) Langlois concedes that whether the ancillary functions are carried out inside or outside the firm may depend on the relative production and transaction costs (1995:7).

other firms. The Nelson and Winter model only talks explicitly about selection processes internal to the firm. There are implicit external selection forces working however, through supply and demand impacts on profits, and because capital is not available to replenish the capital stock of unprofitable firms. The relationship between internal and external selection processes is an important issue in both Nelson and Winter (1982) and in the literature more generally.<sup>14</sup>

The bulk of Nelson and Winter's work concerns firms, but they include a brief discussion of 'nonmarket selection environments' which is where new iwi organisations are found. In comparison with consumers and firms operating in a market selection environment, they suggest that the separation between 'clients' and the 'organisation' is typically less clear cut in nonmarket selection environments. Lack of separation means that 'the question of how legitimate values are to be determined is much more complex in nonmarket sectors...[because the]... public agency is expected to play a key role in the articulation of values and to internalize these and work in the public interest of its own volition.' (1982:269). Characterising the objectives, performance standards and selection criteria for innovations is more difficult in nonmarket selection environments. Objectives are unlikely to be restricted to profit, and may relate not just to outcomes but to process.<sup>15</sup> External pressures may be less exacting in nonmarket selection environments, but they are also likely to be more arbitrary with a number of organisations having influence over a whether an innovation is permitted.<sup>16</sup> Finally, if organisations are not directly competing with one another there are no incentives to deter imitation of successful innovations.

In considering the differences between market and nonmarket selection environments it is also useful to consider the work of Hirschman (1970) which examines the different ways that clients or members can influence an organisations behaviour. He notes that in markets the right of 'exit' (withdrawing custom) is favoured as a discipline, while 'voice' is favoured in political or nonmarket contexts. Hirschman is concerned on the efficacy of the two mechanisms, and notes that a compatibility problem arises if an institution has processes for responding to one form of discipline, but the other is actually the one being employed [chp 9].

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<sup>14</sup> A key point in Alchian's (1950) paper for example, was that selection could be both internal (i.e., a matter of choice by the participants) or external (systemic). More particularly, Alchian suggested that deliberate profit generating behaviour was not required if systemic selection for profit generating behaviour was strong enough.

<sup>15</sup> This possibility: that performance standards relate not just to the outcomes of routines, but to acceptable processes within routines, exists for all institutions, but it may be particularly marked in non profit, mixed objective organisations where principles such as 'a right for all to input into decisions' operate.

<sup>16</sup> The question of how effective markets are in eliminating firms whose performance is sub-optimal is a matter of debate. Kay's (1997: 78) view, for example, is that large firms operate in a 'soft' selection environment where they have some discretion over their expansion strategy, where there is some scope for error and empirically, elimination is rare.

## ***A Generic Model of Evolutionary Change***

Nelson (1995) generalises the theory of evolutionary change based on competencies and adaptive learning. The building blocks of the general theory are units of information or knowledge which are subject to random variation, a selection process which operates on the diversity of units, and the persistence of the units that are selected. Nelson proposes that any adaptive learning process: individual, organisational or societal, can be viewed through this framework and that adaptive learning processes are at the heart of social evolution. The explanatory power of the evolutionary model in any particular situation rests on a convincing empirical account of each of the theoretical building blocks, and in particular ‘...the theory has limited explanatory power until the question of selection criteria gets answered.’ Nelson (1995:55). Nelson discusses the use of evolutionary models in the context of biology, socio-biology, and various aspects of culture (science, technology, business organisations and law).

The three building blocks of the general theory are present in the models of individual and organisational learning outlined above. Routines are the basic unit of information and these are carried out to achieve a particular end. The process of search is undertaken by individuals or organisations when the ends are revised, or the routine no longer achieves the desired ends. Search involves identification of new routines through either innovation or imitation. The search process is intended to generate change, but it qualifies as random because it is a process of trial and error, where there is uncertainty as to what will be uncovered. The selection process involves identification and adoption of new or modified routines that are expected to meet the revised standard. New routines that are successful in meeting expectations persist because they continue to be used by the group or individual and may also be imitated by others.

### ***Evolutionary Models – persistence and change***

The term ‘evolutionary’ is used to denote a dynamic process involving change, but also substantial persistence of conditions from one time period to the next. There are a number of reasons for this. Institutions persist because they influence the way interests and problems are defined at both a personal and a group level. They also form the building blocks from which new models are constructed and justified. Campbell (1997:22) follows Douglas for example, in suggesting that ‘the institutions within which actors innovate are also *enabling* to the extent that they provide a *repertoire* or already existing institutional principles (e.g., models, analogies, conventions, concepts) that actors use to create new solutions ... by recombining these principles through an innovative process of *bricolage* whereby new institutions differ from but resemble old ones. [Furthermore] in order for new institutions to take hold they must be framed with combinations of existing cultural symbols.’ [emphasis in original] Nelson and Winter (1982:130) agree that ‘innovation ... consists to a substantial extent of recombination of conceptual and physical materials that were previously in existence.’<sup>17</sup>

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<sup>17</sup> I use the term evolutionary to denote the general idea of persistence of conditions from one period to the next, such that change is overwhelmingly incremental. At times in the literature, evolutionary is used interchangeably with ‘path dependent’, although the latter is also used to refer to the specific case where



At a more prosaic level, institutions persist because change is expensive. This is because change requires that new co-ordination processes be developed, new information be disseminated and understood, and physical alterations made. The more densely that a particular institution is inter-linked with surrounding institutions the more expensive change will be. North (1990:61) observes that institutions are nested and become increasingly resistant to change as one moves to higher levels of generality.<sup>18</sup> Institutional changes will usually have to be negotiated and the more complex and redistributive the changes, the more difficult will be the negotiations. Finally, the status quo may persist because the alternative options are 'weak', meaning that they and their consequences are difficult to discern. (Groenewegen and Vromen 1997:48)

### ***Characteristics of the Evolutionary Model***

The evolutionary model presented above represents a subtle combination of spontaneity and design; holism and individualism; deliberation and rule following. Institutional design is evident in the deliberate search processes for new routines, the deliberate selection of those expected to perform favourably, and the deliberate repetition of routines that meet expectations. The unintentional or spontaneous elements to institutional form arise because there is an element of luck in discovering a particular new routine, whether it is result of deliberate search, the development of tacit knowledge, or in the evolution of organisational culture. These spontaneous processes are influenced but not directed by deliberate decisions.

An individualistic outlook is present in the focus on the intentional aspects of institutional change. The importance of institutions not just as constraints, but in shaping the definition of interests, problems and solutions demonstrates that holistic forces are also at work.

Thirdly, routines involve an explicit combination of deliberate choice and rule following behaviours. Thus, a choice is made to employ a particular routine, but its performance is substantially automatic. Nelson and Winter (1982:85) point out that the same action may be either automatic or consciously controlled depending on particular circumstances (e.g., regulating speed while driving is generally unconscious, but may become conscious in the vicinity of a speed camera). They also note that sometimes the intention may be to control ones speed, but it may switch back onto auto-pilot. They conclude that

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institutions that appear inefficient with the wisdom of hindsight, become 'locked-in'. I do not use the term evolutionary to mean 'pre-determined', although the idea of persistence clearly involves an influence of the past on the present and future. Institutions are sometimes referred to as frameworks, which carried with it the implication of persistence. Mathews (1986) states for example, that 'institutions provide the framework for economic life and a completely flexible framework is a contradiction in terms.' On an individual level, Loasby (1986:46) cites the psychologist Kelly as suggesting that 'at the level of human relationships, if a person were to be capable of instant rearrangements of his or her own interpretative framework, it is not clear that he or she would be recognisable as an individual.'

<sup>18</sup> For example, particular legal personalities are constructed within the framework of statute law, statute law is framed by constitutional law, constitutional law constrained by common law, and common law is informed by informal cultural institutions.

'[d]eliberate choice plays a narrowly circumscribed role, limited under normal circumstances to the selection of the large-scale behavior to be initiated. ... The modification of skilled performance by deliberate choice greatly expands the potential diversity, flexibility and adaptability of behavior – but always at an opportunity cost in terms of foregone uses of conscious attention'.

Nelson and Winter (1982:266 - 271) consider that one of the most critical and difficult tasks in successfully employing the evolutionary model is to adequately characterise the selection environment. This requires examining the internal selection pressures (e.g. who sets the objectives internally and what are they?) and external selection pressures (e.g. who or what external forces influence survival and what are their objectives?). Adequate characterisation also requires an explanation of how these two influences interact (e.g. do the internal objectives reflect the external objectives, or are they operating independently and which dominates and in what circumstances?). Lastly, adequate characterisation requires and a story about how the selection of successful innovation internally leads to persistence and if and how successful innovations are imitated by other organisations. The dual influence of internal and external forces generates a matrix of potential triggers for search and selection of a new routine. Thus the performance standard may change from either internal or external origin, or the capacity to carry out the routine to meet the standard may change for either internal or external reasons while the performance standard remains the same.

The combination of spontaneous and deliberate design means great care must be exercised in empirical explanations in accounting for the existence of organisations in terms of what they do. The use of such a functionalist explanation may be justified by the intentional aspects of institutional change – search, selection, repetition and imitation. A functionalist explanation will not be appropriate in accounting for the spontaneous elements of institutional evolution: the serendipitous discovery of particular new routines; the development of tacit knowledge in learning by doing; or evolution of organisational culture. These latter elements are not disallowed, but they are left unexplained in the model outlined above.

Nelson (1995:82/3) considers that with respect to changes in economic institutions generally 'it is almost certainly necessary to think of evolutionary "processes" in the plural...[because]... [i]n many cases the evolutionary processes at work seem to involve a blend of market, professional, and political processes, and it is likely an enormous task to sort these out and get an accurate assessment of operative "fitness" criteria and selective mechanisms. ... We have very little understanding of how this kind of selection environment works, and how it defines "fitness"'.<sup>19</sup>

## **Theories about firm boundaries and expansion paths**

The competency and evolutionary models outlined above are concerned with the reasons firms exist and the processes in which firms evolve. Before using these models to develop some questions to guide the empirical work on new iwi organisations it is useful to consider two theories which address a different but complementary question: 'What explains the boundaries and expansion paths of firms?'. Kay (1997) outlines a competency based explanation of expansion. Williamson (1975, 1985) explains the decision to expand in terms of reducing risk when making investments particular kinds of assets.

### ***Kay's competency based model of firm expansion***

Kay (1997) develops a competence, path dependent model of firm development which has elements in common with Nelson and Winter's, but which is particularly concerned with firm expansion patterns. Kay considers that firms are bundles of resources, that are used to generate competencies, and that it is the way that competencies are combined that generates a distinctive competitive advantage (1997:16). He views the firm as 'a hierarchically-organised collection of resources, making imperfect decisions, in which technological change is typically the critical strategic variable.' (1997:29).

Kay characterises firms as being growth orientated, seeking to expand into areas where they can capitalise on the use of their core competencies. For example, if a firm has a successful marketing infrastructure for rapid delivery of one product, it could exploit this competency by expanding the range of products it delivers. The basic imperative is to expand along a path which maximises the sharing of successful core competencies between existing and new business units. Kay considers that scope for this type of expansion will eventually become limited, if not by market demand, then by anti-trust legislation. More fundamentally, Kay says that while this specialised expansion maximises the use of a limited set of core competencies, it also increases vulnerability should these core competencies become obsolescent. This vulnerability provides a counter argument for more diversified expansion.<sup>20</sup>

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<sup>19</sup> Nelson conjectures that the areas where evolutionary theory is struggling are the areas where neo-classical economics has also had the greatest difficulties. 'They are the areas where there is no real market, or where market selection is strongly mixed with political or professional influences. The problem in theorizing here clearly lies not in the evolutionary art form, but in the complexity of the subject matter.' Nelson (1995:85)

<sup>20</sup> There is an implicit assumption in Kay's model that once a competency has been developed its use can

Diversified expansion can take three possible forms according to Kay. The first is where all units have one competency in common e.g. a particular marketing style. The second is where the two units share a competency such as marketing style, but the second and third share a different competency e.g., a production process. The third is conglomerate expansion where there are no shared competencies between different units. Kay's basic thesis is that sharing successful competencies increases efficiency, but also increases vulnerability. Thus, there will be a shift from dense sharing to no sharing as the environment becomes more uncertain and the risk of competencies becoming obsolescent increases.

The two features of this expansion process that Kay considers noteworthy are that it is 'patterned' and 'path dependent'. By patterned, Kay means that it follows discernible rules e.g., a shift from dense sharing to no sharing as the environment becomes more uncertain. Path dependency arises because opportunities for expansion tomorrow are governed by the competencies developed in the past and the nature of past linkages.

An aspects of Kay's work that may be relevant for new iwi organisations, is his consideration of synergies based on cultural links (c-links). Kay (1997:160) raises the issue in the context of multi-national expansion and states that 'for the most part exploitation of c-links is bundled up with the exploitation of other linkages and cannot be easily disentangled.'

### ***Williamson's transaction cost economics***

Transaction cost economics encompasses a range of literature, but the Oliver Williamson's work is most commonly cited in connection with contemporary transaction cost theorising. Williamson (1993:40) agreed with Commons that the basic unit of analysis in studying contractual forms should be the transaction and that this 'invited a further query: What are the critical dimensions with respect to which transactions differ.' Identifying these differences between transactions is a prerequisite to applying the 'discriminating alignment hypothesis ... according to which transactions, which differ in their attributes, are aligned with governance structures, which differ in their costs and competencies, in a discriminating – mainly, transaction cost economizing - way.' More exactly, Williamson suggests that '[t]he criteria for organising commercial transactions is ... to economise on the *sum* of production and transaction costs.' (1979:245)<sup>21</sup>

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be expanded internally without difficulty (even though it is distinctly difficult to imitate externally). One might be concerned that given the more detailed description of routines outlined in the previous section, and the fact that they involve a substantial element of learning by doing, there will be limits to the rate of successful expansion due to the need for new workers to be inculcated into the successful routines. Another feature of Kay's model that would benefit from elaboration is the assumption that firms are growth orientated. Although not particularly controversial, it is central to his stories about patterned expansion so an explanation would seem desirable.

<sup>21</sup> This proposition echoes Coase (1937, 350) who suggested that '[a]t the margin, the costs of organising within the firm will be equal either to the costs of organising in another firm or the costs of leaving the transaction to be "organised" by the price mechanism.'. Williamson (1985:1) suggests that a 'transaction occurs when a good or service is transferred across a technically separable interface. One stage of activity

Williamson (1985:55) argues that the dimensions of transactions which have a critical influence over costs are uncertainty, frequency of recurrence and asset specificity. Of these, he considers asset specificity to be the most important. '[A]sset specificity refers to durable investments that are undertaken in support of particular transactions, the opportunity cost of which investments is much lower in best alternative uses or by alternative users should the original transaction be prematurely terminated...in these circumstances...continuity of relationships is valued ... [and] ... contractual and organizational safeguards arise in support of transactions of this kind.' Williamson (1993:40) considers that unilateral or bilateral dependency, where investment in highly specific assets mean that one or both parties suffer significant losses if the contract is terminated, is a widespread feature of contracts.

In his transaction cost economics, Williamson adopts two critical behavioural assumptions: bounded rationality and opportunism. Limits on individuals knowledge and analytical powers mean that long term, complex contracts are irretrievably incomplete. In addition, the assumption of opportunistic action means that '*contract as promise, unsupported by credible commitments is hopelessly naïve.*' (1990b:11/12; emphasis in original).

Contracting in the face of bilateral dependency, bounded rationality and opportunism is, Williamson argues, a risky business. As circumstances change the contract needs to be adapted but its incompleteness creates the space for one party to exploit the dependency of the other party. Williamson suggests that a hierarchical relationship, characterised by common ownership and governance, can reduce this risk by providing a framework within which the contract can be modified to meet changing circumstances. Thus, 'hazard mitigation through the ex-post governance of incomplete contracts is the general rubric'(1998:76). When considering governance structures, Williamson proposes a basic dichotomy between markets, which have high powered incentives and hierarchical arrangements which allow adaptability (1993:49). Hierarchical structures will be favoured where the need for adaptability is paramount, as is the case with long term transactions involving highly specific assets.<sup>22</sup>

### Elaborations on Williamson's transaction cost economics

There is a large volume of literature that takes Williamson's work as a starting point for critique, both constructive and destructive. Kay (1997) proposes a modification of Williamson's proposal which suggests that what is most likely to lead to integrated ownership is not bilateral, but unilateral dependency. Thus:

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terminates and another begins.' This definition doesn't give much away. One is left to infer from the way Williamson uses the term transaction, that it is loosely synonymous with a trade or exchange. This is evident for example when he states that '[v]irtually any relation, economic or otherwise that takes the form or can be described as a contracting problem can be evaluated to advantage in transaction cost economic terms.' (1985:387)

<sup>22</sup> Williamson suggests that markets and hierarchy are the extremes and proposes more lengthy taxonomies (1979:247) involving intermediate contractual forms.

- 1 If investment is made in asset A and its value is dependent on a relationship with party B, and
- 2 party B has low specificity (other options) and departs, then
- 3 the owners of asset A need to be able to replace the relationship with party B, or
- 4 they need to be able to relocate asset A to a valuable use (either internally or by sale).

It is the *combination* of the difficulty in either replacing the relationship with B, if B has other options and departs, or usefully relocating asset A, which would drive those investing in asset A to create a hierarchical relationship with party B. Thus, it is the specificity of asset A (Williamson's concern) and the lack of specificity of party B (Kay's addition) that is particularly risky for the owners of A, because it makes them open to ex-post opportunistic behaviour by party B.

Kay draws a distinction between the factors that determine the boundary of the firm and those that influence the choice of governance structure. While common ownership is a response to asymmetric risk, Kay considers that the most appropriate governance structure depends on the nature of the decisions that will be made. Markets, Kay (1997:53) argues embody past decisions, while contracts provide a framework where uncertainty requires that some decisions be left for the future. Kay suggests that where future decisions are required between two parties that do not involve asymmetric risk a contractual relationship would emerge, not common ownership.

Another useful modification to Williamson's transaction cost economics is provided by Granovetter. He (1985:487) argues that 'attempts at purposive action are embedded in concrete ongoing systems of social relations' so that transactions often take place between parties who know each other. In light of this, Granovetter considers that how participants behave when they transact will depend on the particular relationship they have with the other party. If they have a relationship that involves a high degree of trust then the safeguards that Williamson argue come with a hierarchical governance structure may not be necessary. Granovetter (1985:503) suggests that 'other things being equal, we would expect pressures toward vertical integration in a market where transacting firms lack a network of personal relations that connects them or where such a network eventuates in conflict, disorder, opportunism or malfeasance.' He concludes that 'what the viewpoint proposed here requires is that future research on the market-hierarchies question *pay careful attention to the actual patterns of personal relations* by which economic transactions are carried out.' [p504, emphasis added]<sup>23</sup>

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<sup>23</sup> A considerable amount of iwi business takes place between people who know each other, so Granovetter's embeddedness concept may be useful when looking at what new iwi organisations do. Williamson (1985:22) explicitly acknowledges Granovetter's contribution, although Williamson refers to the importance of social context (customs, mores, habits) whereas Granovetter is more concerned with specific social relationships i.e., whether the participants know each other, and whether this knowledge generates trust or distrust.

## Empirical work in transaction cost economics

A significant amount of empirical work has been undertaken within the transaction cost economics rubric. Reporting on this work, Shelanski and Klein (1995:338) note that the discriminating alignment hypothesis is normally tested in the following general form: 'the probability of observing a more integrated governance structure depends positively on the amount or value of the relationship specific assets involved and, for significant levels of asset specificity, on the degree of uncertainty about the future of the relationship, on the complexity of the transaction, and on the frequency of trade.' 'Operationalising' the discriminating alignment hypothesis therefore requires identifying what transactions are taking place inside what governance structures, and then attempting to categorise both the transaction (in terms of asset specificity, complexity, frequency and uncertainty) and the governance structure (in terms of the market – hierarchy continuum).

The task of empirical work is to find adequate proxies for the components of the hypothesis, which Shelanski and Klein (1995:339) observe, is not always straightforward when testing the discriminating alignment hypothesis. They also report confusion over the definitions of the explanatory variables, and a concern that as 'in empirical work more generally ... alternative hypotheses that could fit the data are rarely stated and compared.' (1995:340) In general though, they view favourably the results of the survey concluding that: 'Studies that examine the make-or-buy decision and the structure of long term-contracts, in particular, overwhelmingly confirm transaction cost economic predictions.'

## Relationship between transaction cost economics and competency theories

The relationship between transaction cost economics and competency approaches is not dealt with clearly in the literature. The competency approach seems to suggest that the distinction between transaction and production costs may not always be useful. The costs associated with a group of people learning a particular productive routine for example, will include those associated with making a large number of incidental interactions run smoothly. Given the lack of clarity in the definition of a transaction, it is unclear whether these costs should be thought of as production or transaction costs. The term 'co-ordination costs' is sometimes used and avoids the need for this distinction.

Williamson uses the concept of transactions to refer to large, discrete, and potentially formal exchange agreements rather than the numerous small interactions that occur in team production. Nonetheless, while major transactions and minor interactions may be distinctive at their extremes, they are on a continuum, and in the transition where they are difficult to distinguish the distinction between production and transaction costs may also prove elusive.

## **Exploring the evolution of new iwi organisations : questions suggested by the literature**

### ***Questions about firms and questions about organisations***

Kay (1997:5) suggests a list of questions which a theory of the firm should be able to answer.<sup>24</sup> The questions are:

- 1 Why does the firm exist?
- 2 How does a firm survive in the face of the forces of creative destruction?
- 3 What determines the boundaries of the firm?

In order to use the literature surveyed above to guide the investigation of new iwi organisations, it is necessary to develop a set of questions that can be asked not just of firms, but of organisations generally. Below, I develop Kay's list to make it more suitable for new iwi organisations, taking into account the theories discussed above. The competency and evolutionary models offer answers to the first and second questions. Kay (1997) suggests competency based answers to the third question, but his answer is partial and allows room for other theories such as Williamson's transaction cost economics (1975, 1985). In addition to evolving competency and transaction cost economics, a brief reference is made below to Ostrom and Walker's (1997) work on collective action in considering question one.<sup>25</sup>

The list of questions developed to apply to organisations generally will guide my field work investigation into the factors influencing the development of new iwi organisations. The final section gives an indication of how this guidance might work.

### ***Why do firms exist?***

Competency theory suggests that the existence of a firm can be explained by what it does. Routines, which are at the heart of the organisation, are searched for, imitated, modified

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<sup>24</sup> The first and third questions Kay has taken from Holmstrom and Tirole (1989). I have listed the questions in a different order from Kay, to give a more logical fit with the literature I have chosen. Kay also adds a fourth question: 'How does the firm organise resources to pursue the strategy represented by the boundaries of the firm?' The literature that offers answers to this question is fragmented and no theory stands out as being particularly suitable for new iwi organisations. A large number of the theories relate to contracts for labour. Menard (1997b) for example, follows Williamson (1985: chp 10) in considering how the specificity of human assets and the separability of tasks influences the nature of internal labour contracts. Bouttes and Hamamdjian (1997) consider how the nature of the decision influences the same internal contracts. At this stage, it is unclear how much empirical material will be available relating to internal organisation, particularly sensitive issues such as the nature of employment contracts, so I haven't dealt with this literature in this review. If the empirical material proves to be forthcoming in the course of the fieldwork, it may justify revisiting the literature in this area.

<sup>25</sup> I use 'evolving competency' as a short hand for the combined competency and evolutionary model presented by Nelson and Winter (1982). Although they call it 'An Evolutionary Theory of Economic Change', the concept of competencies is as central as the process by which they evolve, so it seems appropriate to include both terms in a title.



and repeated, because of the outcomes which they generate. There may be elements of spontaneity in the development of routines with the discovery process being in part a matter of luck, learning by doing, or cultural evolution. The retention of routines is intentional, however, even if they are accidental in origin.

The intentional aspect of routines means that the explanation of their persistence is to be found in the outcomes they are seen to deliver by those with influence over their ongoing performance. The first research task therefore is to identify those who have influence, both inside and outside the organisation, and to ask what they see as the objectives or functions of the organisation. The question 'why do firms exist' becomes, 'who has control over the ongoing operation of the organisation and what does the organisation do in their view?'<sup>26</sup>

The work of Ostrom and Walker (1997), while categorised within the public choice literature, also offers a response to the question 'why do the new iwi organisations exist?', which is complementary to the competency view. Ostrom and Walker (1997:35/6) observe that '[C]ollective action problems occur when individuals, as part of a group, select strategies generating outcomes that are suboptimal from the perspective of the group. ... Various forms of associations and networks of relations are successfully used to solve aspects of collective action problems. These include families and clans, neighbourhood associations, communal organisations, trade associations, buyers and producers' co-operatives, local voluntary associations and clubs, special districts, international regimes, public service industries, arbitration and mediation associations, and charitable organisations.'

Ostrom and Walker argue that 'problem-solving individuals craft their own solutions all the time ... [but that]... [t]he working rules that individuals develop are invisible to outsiders unless substantial time and effort is devoted to ascertaining their presence and structure.' (p42-43). These 'working rules... invisible to outsiders', have a familial resemblance to the routines of competency theory. Ostrom and Walker also note that 'All rules are nested in another set of rules that if enforced defines how the first set of rules can be changed.' (p43)

Ostrom and Walker are particularly interested in institutions for managing common pool resources, which they see as involving both provision, a co-ordination task, and the allocation of use rights. Based on their empirical work, they come up with a list of factors that are conducive to the development of more effective institutions and a list of design features conducive to long life. Factors conducive to development include the presence of accurate information relevant to management; homogeneous participants; trust between participants; a stable participant group; a low discount rate; autonomy and/or external support in rule crafting and enforcement; a balance between unanimity (inclusion) and oligarchy; and low cost enforcement. Factors conducive to long life

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<sup>26</sup> It is possible of course that those who have control seek to create organisational routines to achieve a particular outcome, but find that this outcome is not achieved. In the evolving competency model this would trigger further search processes, until routines that met the performance standard were uncovered or the organisation was shut down.

include well defined physical and membership boundaries; congruence between rules and local conditions; high participation, monitors who are accountable to beneficiaries; graduated sanctions; effective dispute resolution mechanisms; and external recognition of the groups authority to organise. These lists are not tightly defined and care is required to avoid tautology in their application, but they do offer suggestive guidelines for comparison with the results of empirical work.<sup>27</sup>

### ***How do firms survive the forces of creative destruction?***

In the evolving competency model, the 'creative destruction' process involves the modification of routines when their performance is judged inadequate. When applying the theory empirically, the challenge is to identify what the performance standard(s) designate an outcome as 'satisfactory' and what revision processes come into play when the routine fails to meet the standard. As noted by Nelson (1995:55) adequate characterisation of the selection criteria and process is fundamental to the successful application of the theory.

The 'failure' of a routine may arise for a number of reasons, including: revision of the performance standard; addition of a new objective to the organisation; a changed environment which prevents the routine from delivering to the standard; an impairment of the way the routine is performed (when a key team member leaves, for example); or new information emerging which indicates an easier way of achieving the standard. The evolving competency model suggests that the response to an operational routine falling below standard will be an internally initiated search for a new or modified routine. Failure to find modified routines that perform adequately may eventually lead to the organisations demise from either internal or external decisions.

The features of the nonmarket or political selection process which Nelson and Winter (1982:268) discuss are relevant in characterising the selection process. For example, they suggest that there may be multiple objectives held by a number of different parties (organisational leaders, members, external decision makers, as well as conventional markets) and these objectives may relate to process as well as outcomes. The constraints on organisations may be less clear cut, involving a combination of exit and voice (as discussed by Hirschman 1970). Finally, one would expect more sharing of innovations between organisations where these are not in competition.

Another insight into the way in which organisations respond to inadequate performance is provided by North's (1981:chp3) suggestion that there is a supply as well as a demand side for institutional change. North's points out that where institutional innovations go

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<sup>27</sup> The complementarity of Ostrom and Walker's work contrasts with the bulk of the public choice literature which is either primarily theoretical and normative (deducing the sort of political institutions rational, self interested individuals might be expected to create) or, where it becomes empirical, focuses on national political systems (and the US in particular). The underlying conclusion of empirical work in public choice theory seems to be that despite evidence of deliberation and choice in the design of institutions 'the political institutions of most countries have evolved in ways that are not well characterized as the intended outcomes of rational actors. The positive analysis of political institutions must take into account the role played by chance and its unpredicted and unintended consequences.' (Mueller 1997b:141)

beyond the existing legislative limits, the state becomes a player in supplying legislative change and it cannot be assumed to do this automatically. The state will make an assessment of any distributional implications of the innovation and may bring to bear objectives of its own.

Generalising the question ‘how do firms survive the forces of creative destruction’ to all organisations using an evolving competency perspective involves asking: ‘what is a satisfactory performance in the view of those who have control over its ongoing operation’ and ‘what processes are embarked upon, both internally and externally when performance is judged inadequate?’.

### ***What is the pattern of growth or expansion of the organisation?***

Two theories have been considered which constitute responses to this question: Kay’s model of competency based expansion and Williamson’s transaction costs explanation.

Assessing the applicability of Kay’s theory requires an investigation into what the core competencies of the organisation are, that is, what are the routines that are difficult to imitate and are effective relative to competitors.<sup>28</sup> The routines are likely to be different for the different functional sub-units of the new iwi organisations. Next, one must consider whether there is a tendency to expand to exploit the core competencies. Lastly, one should ask whether there is less tendency to expand to exploit the core competencies when the environment is judged to be more risky (and in particular, when the core competencies risk being superseded).

Shifting to transaction cost economics, it was noted earlier that Shelanski and Klein (1995:338) suggest that the discriminating alignment hypothesis is normally tested in the following general form: ‘the probability of observing a more integrated governance structure depends positively on the amount or value of the relationship specific assets involved and, for significant levels of asset specificity, on the degree of uncertainty about the future of the relationship, on the complexity of the transaction, and on the frequency of trade.’ Operationalising the discriminating alignment hypothesis therefore requires identifying what transactions are taking place and what governance structure surrounds them. The transaction needs to be classified in terms of asset specificity (including whether this specificity is symmetric or asymmetric), complexity, frequency, and uncertainty. The governance structure also needs to be classified as to whether it is a market framework, a contract (with or without provisions for renegotiation), or common ownership.

### ***Questions about new iwi organisations***

In summary, the literature surveyed suggests the following list of questions for exploring the evolving structure and processes of organisations.

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<sup>28</sup> For organisations that operate in non-market environments deciding who or what the competitors are may require some reflection. The answer lies in identifying those who have influence over the continuing operation of the organisation and considering what alternative uses they might have for their attentions.

1 **Why do firms exist?**

*Who has control over the ongoing operation of the organisation, and what does the organisation do in their view?*

2 **How do firms survive the forces of creative destruction?**

*What is a satisfactory performance in the view of those who have control over its ongoing operation' and 'what processes are embarked upon, both internally and externally when performance is judged inadequate?'*

3 **What determines firm boundaries?**

*Competency based explanation*

*What are the core competencies of the organisation, that is, what are the routines that are difficult to imitate and are effective relative to competitors (remembering that the routines are likely to be different for the different functional sub-units of the new iwi organisations)?*

*Is there a tendency to expand to exploit the core competencies?*

*Is there less tendency to expand to exploit the core competencies when the environment is judged to be more risky (and in particular, when the core competencies risk being superseded)?*

**Transaction cost explanation**

*What transactions are taking place and what governance structure surrounds them?*

*What is the nature of the transaction in terms of asset specificity (including whether this specificity is symmetric or asymmetric), complexity, frequency, and uncertainty?*

*What is the nature of the governance structure i.e., is it a market framework, a contract (with or without provisions for renegotiation), or common ownership?*

## **Exploring the evolution of new iwi organisations : Applying the questions suggested by the literature**

The purpose of the field work is to gather empirical material that will suggest answers to the questions above. The discussion below however, gives examples of how one might respond to some of the questions, based on the limited knowledge held prior to the start of field work. The intention is to illustrate how the questions set out above might guide the research, not to anticipate the outcome of the fieldwork. The discussion deals primarily with the tribal runanga, the sub-unit of the new iwi organisation about which most is known at this stage. ('Runanga' is a term widely used to refer to the political entity within of the overall new iwi organisations. It comprises iwi representatives

selected by iwi members, and usually some support staff.) The discussion touches on the first, second, and the core competency part of the third question. No attempt is made to respond to the transaction cost economics part of the third question, as insufficient is currently known to make even a preliminary comment.

**Who has control over the ongoing operation of the runanga and what does the runanga do in their view?** There are a number of participants with some influence the ongoing operation of the of the runanga including the iwi representatives, iwi members, external agencies (Te Ohu Kai Moana, government departments). Other participants may have an indirect influence. For example, iwi representatives might take into account the appearance of the runanga structure to potential commercial partners, or may seek expert legal advice. The functions of the runanga, at least as set out formally in their constitutions, includes representation, strategic oversight over commercial activities, and strategic oversight over social and cultural development activities (Bell Gully Buddle Weir, 1996:i). It seems likely that 'representation' would be accepted by any of these parties as something the new iwi organisation does.

**What is a satisfactory performance in the view of those who have control over its ongoing operation and what processes are embarked upon, both internally and externally when performance is judged inadequate?** It is not clear at this stage what a 'satisfactory' performance is, judged by iwi representatives or members, but one can observe reform processes initiated by both these groups. For example, the new tasks that iwi organisations have been confronted with since the 1980s, such as delivery social services on contract and negotiating settlements of Treaty claims, have led iwi leaders to reconsider the adequacy of existing iwi structures to act in a representative role. Their response has been to undertake review processes involving consultation with iwi members, advice from lawyers, study of the structures of other tribes, and subsequent constitutional amendment.<sup>29</sup> Iwi members who have concerns about the adequacy of the performance of their representative can be observed to voice their concerns (at tribal hui, or in mainstream media), to vote out representatives, to stop participating in the organisation, and in the extreme, to publicly voice their allegiance to a rival organisation (such as an urban Maori group).

Te Ohu Kai Moana has developed a list of criteria marking a 'satisfactory performance' with respect to representation. These relate to open participation and rights to information that must be formally incorporated in constitutions in order for iwi organisations to qualify to receive fisheries assets. When Te Ohu Kai Moana assesses an iwi organisation to have inadequate constitutional provisions with respect to representation, it works with that organisation to rectify the situation. Ultimately, it has the power to withhold fisheries assets to organisations that do not comply (although a move to apply such a sanction would likely be tested in the courts).

**What are the core competencies of the organisation, that is, what are the routines that are difficult to imitate and are effective relative to competitors (remembering that the routines are likely to be different for the different functional sub-units of**

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<sup>29</sup> In some cases formal structures have not been amended but replaced in their entirety.

the new iwi organisations)? Is there a tendency to expand to exploit the core competencies? Is there less tendency to expand to exploit the core competencies when the environment is judged to be more risky (and in particular, when the core competencies risk being superseded)? I have limited information to date about the influences over the boundaries of the iwi runanga (except to note that the membership boundaries are heavily influenced by historical settlement patterns, and the functional boundaries are related to how successful tribes are at gaining recognition of their rights). The question of how one defines boundaries is itself complex for these runanga. At the membership end, it includes both the potential membership (those who whakapapa to the iwi) and the extent of actual involvement by members. At a functional level it includes the scope of functions (representational, social & cultural and commercial) and the extent of involvement at each level. For example, the runanga may be consulted on some aspect of land or sea management in the tribes rohe, it may be a co-manager, or it may have sole responsibility.

An observation that can be made about the expansion of delivery of social services under government contract, draws on Kay's (1997:160) consideration of synergies based on cultural links (c-links). He raises the issue in the context of multi-national expansion and states that 'for the most part exploitation of c-links is bundled up with the exploitation of other linkages and cannot be easily disentangled.' This may be an explanation as to why iwi organisations have an advantage in service delivery across a broad spectrum of services. The expansion path for contract service delivery is driven by Maori demand for culturally appropriate services and the Government preparedness to fund them.

## Conclusion

A survey of the economics literature concerned with the evolution of institutional design reveals a diversity of styles and foci. Many parts are not obviously useful for a qualitative investigation of new iwi organisations, being too abstract or concerned with the detail rather than the overall aspects of design. One area stands out however as being particularly adaptable, the combined competency and evolutionary model. In addition, some of the partial theories such as transaction cost economics, may offer guidance in localised parts of the investigation. The evolving competency model has been used to generate a set of questions that will provide guidance in the field work which will explore the evolution of new iwi organisations.

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