AN INSTITUTIONAL ECONOMICS APPROACH TO AGRIBUSINESS IN DEVELOPMENT: SOUTH AFRICAN CASE STUDIES

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DECLARATION

I, the undersigned, hereby declare that the work contained in this dissertation is my own original work and that I have not previously in its entirety or in part submitted it at any university for a degree.

Signature: ______________________ Date: 18 Januarie 2005

ABSTRACT

This dissertation is a sojourn into institutional economics and its application to contemporary economic and development issues in South Africa. Economic development initiatives in agribusiness have much to gain from the theories and approaches advanced by the new institutional economics. Institutions are considered essential to the functioning of economies, markets and organizations, despite its neglect in neoclassical economics The study intends to prove that 'institutions matter', especially when social and economic transformation is necessary. The cases studied exhibit how institutions matter and shape economic outcomes.

The theoretical basis established in this thesis was applied to economic development challenges such as contracting, organizational innovation, economic empowerment, land reform, building social capital, organizational design, supply chain management, entrepreneurial development, and modes of constructive engagement. The thesis is a compilation of academic papers applied to the various selected developmental challenges prevalent in South African agriculture.

The study begins by delving into the more popular New Institutional Economics literature and specifically transaction cost economics. Somewhat unexpectedly, this leads to a greater appreciation for the insights generated by the Old Institutionalists in investigating the nature of institutions. Hence, the old institutional economics gains prominence in the latter part of this work, contrary to contemporary approaches followed in agricultural economics. The acknowledgement given to aspects like social capital and embeddedness is consistent with Williamson's proposed framework for the economics of institutions and this is used as the conceptual framework in this thesis.

Whereas the new institutional economics was found to be useful in yielding knowledge through analysis and remediable outcomes, the old institutional economics retains its advantage in promoting understanding of problems especially in the face of complexity. This inclination has influenced the thesis in two ways. First, it diverted the latter part of the work towards the old institutional economics and the role of social capital in shaping institutions and economic behaviour. Second, it reverts to

theories on the nature of the firm that complements the transaction cost approach. The transaction costs approach is thus only used where it is found most effective i.e. analysing vertical integration between firms and the relevant *ex ante* incentives and the *ex post* governance aspects

Most studies are motivated by a general recognition of the role of institutions in framing economic outcomes and end up in the new institutional economics and subsequently transactions cost economics. This favouring of the transaction cost approach has found appeal due to its ability to predict structural and organisational outcomes such as the efficient boundaries of firms, internal organisation, contractual relations, incentives, etc. Methodologically, it enables analysts to employ the empirical and mathematical rigour that has become a feature, but too often the purpose, of economic research. Three papers are devoted to this approach and elicit organisational designs that best contend with identified transaction costs.

The study confirms that several aspects matter in institutional analysis when applied in an economic developmental context such as South Africa. Historical context is acknowledged as a critical facet of institutional analyses in the sense that institutions are shaped by the forces of history. Social capital is established as an important component of institutional economic analysis and particularly relevant in situations where social capital has been eroded by political economic manipulations. Attending to social capital require (*inter alia*) insight into the nature of the societal context, implied path dependency, the extent of trust, enforcement mechanisms, and agency relations. Three of the papers attend to these aspects.

SAMEVATTING

Die proefskrif bevat 'n toepassing van institusionele ekonomie op kontemporêre ekonomiese- en ontwikkelingskwessies in Suid Afrika. Die nuwe institusionele ekonomie het veel te bied tot ekonomiese ontwikkelingsinisiatiewe veral in agribesigheid. Institusies word beskou as essentieel tot die funksionering van die ekonomie, markte en organisasies, ongeag, die nalaat daarvan in die neoklassieke ekonomie. Die studie poog om te bewys dat 'institusies geld', veral wanneer sosiale en ekonomiese transformasie noodsaaklik is.

Die teoretiese basis wat gevestig is in die proefskrif, vind toepassing op ekonomiese ontwikkelingsuitdagings wat insluit kontraktering, organisatoriese innovasie, ekonomiese bemagtiging, grondhervorming, bou van sosiale kapitaal, organisatoriese ontwerp, waardeketting bestuur, entrepreneurskap ontwikkeling, en modes vir konstruktiewe omgang.

Die studie begin met teoretiese 'n ondersoek in die meer populêre nuwe institusionele ekonomiese literatuur, en spesifiek transaksie koste ekonomie. Dit lei later tot 'n onverwagse waardering vir die insigting wat die ou institusionele ekonomie genereer, wanneer die aard van institusies bestudeer word. Gevolglik, verkry die ou institusionele ekonomie prominensie in die latere deel van die studie, in teenstelling met die landbou ekonomiese benaderings wat deesdae bespeur word. Die erkenning aan sosiale kapitaal en institusionele ingeworteldheid is in tred Williamson se voorgestelde raamwerk vir die ekonomie van institusies is word gebruik as die konseptuele raamwerk in die tesis.

Waar die nuwe institusionele ekonomie nuttig is in die werwing van kennis, is die ou institusionele ekonomie nuttig in die kweek van insig en verstaan van probleme en kompleksiteit. Die proefskrif word op twee maniere hierdeur beinvloed. Eerstens, leun die latere deel van die werk meer na die ou institusionele ekonomie en die rol van sosiale kapitaal in die vorming van institusies en ekonomiese gedrag. Tweedens, verskaf dit 'n fokus op die teorieë oor die aard van die firma wat komplimentêr staan tot transaksie koste ekonomie. Die transaksie koste benadering word aangewend in

die ontleding van vertikale integrasie tussen firmas en die relevante *ex ante* insentiewe en *ex post* strukture, waar dit veral nuttig is.

Meeste studies erken die invloed van institusies op ekomiese uitkomste en gebruik hoofsaaklik die nuwe institusionele ekonomie en transaksie koste ekonomie. Hierdie vooroordeel ten opsigte van transaksie koste ekonomie, vind byval as gevolg van die vermoë om strukturele en organisatoriese uitkomstes te voorspel soos die doeltreffendheidsdrumpel van firmas, interne orgasnisasie, kontrakte, insentiewe, ens. Metodologies, moedig dit empiriese en wiskundige benaderings tot ontleding aan, wat ongelukkig al die doel geword het in vele ekonomiese ondersoeke. Drie van die referate wat in die proefskrif vervat word, behels die identifisering van toepaslike organisatoriese ontwerpe wat geskoei is op die transaksie kostes wat geïdentifieer is.

Die studie bevestig dat sekere aspekte van belang is in institusionele ondersoeke, veral in 'n ekonomiese ontwikkelingskonteks soos Suid Afrika. Historiese konteks, word erken as a kritieke faktor in institusionele ontledings, in die sin dat institusies onontbeerlik deur geskiedkundige kragte gevorm word. Sosiale kapitaal word ook erken as 'n belangrike komponent in institusionele ekonomiese ontledings, veral in omstandighede waar sosiale kapitaal verweer het as gevolg van polities ekonomiese manipulasies. Dit veries dat aandag geskenk work aan, (onder andere) sosiale konteks, geïmpliseerde koers afhanklikheid, vertoue, afdwingbare meganismes, en agentskap verhoudings. Drie van die referate word hieraan gewy.

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To Hadia & Alia

A Psalm of Life

Tell me not, in mournful numbers,
Life is but an empty dream!
For the soul is dead that slumbers,
And things are not what they seem.

Life is real! Life is earnest!
And the grave is not its goal;
Dust thou art, to dust returnest,
Was not spoken of the soul.

Not enjoyment, and not sorrow,
Is our destined end or way;
But to act, that each to-morrow
Find us farther than to-day.

Art is long, and Time is fleeting,
And our hearts, though stout and brave,
Still, like muffled drums, are beating
Funeral marches to the grave.

In the world's broad field of battle,
In the bivouac of Life,
Be not like dumb, driven cattle!
Be a hero in the strife!

Trust no Future, howe'er pleasant!
Let the dead Past bury its dead!
Act, - act in the living Present!
Heart within, and God o'erhead!

Lives of great men all remind us
We can make our lives sublime,
And, departing, leave behind us
Footprints on the sands of time;

Footprints, that perhaps another,
Sailing o'er life's solemn main,
A forlorn and shipwrecked brother,
Seeing, shall take heart again.

Let us, then, be up and doing,
With a heart for any fate;
Still achieving, still pursuing,
Learn to labor and to wait

Henry Wadsworth Longfellow

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CHAPTER 1

INTRODUCTION

AN INSTITUTIONAL ECONOMICS APPROACH TO AGRIBUSINESS IN DEVELOPMENT: SOUTH AFRICAN CASE STUDIES

1.1 RESEARCH OBJECTIVES

This work is an endeavour into institutional economics and its application to contemporary economic and development issues in South Africa. The study begins by delving into the more popular New Institutional Economics literature. Somewhat unexpectedly, this leads to a greater appreciation for the insights that the Old Institutional economists generated in investigating the nature of institutions. Hence, the old institutional economics gains prominence in the latter part of this work, contrary to contemporary approaches followed in agricultural economics. Whereas the new institutional economics was found to be useful in yielding knowledge through analysis, the old institutional economics retains its advantage in promoting understanding of problems. This is critical in that it instils caution against reductionism and the search for quick-fix solutions to problems of an institutional nature. Instead, the approach strongly advanced in this work is one that advocates greater emphasis in institutional analysis on generating understanding of institutional problems to enhance the ability to manage such situations, as opposed to 'fixing' institutions as an intuitive response.

The objective of the research is to show that institutions matter in shaping economic outcomes. That institutions matter is well acknowledged in economics and especially in institutional and behavioural economics. This research is aimed at affirming that institutions matter, and advances to establish, illustrate and examine 'how' they matter. It is postulated that this understanding advances and facilitates the design of more appropriate economic outcomes. It is more insightful than conventional neo classical approaches as it generates greater understanding of social and economic situations and inculcates more holistic and thoughtful responses. The use of institutional economics is not intended to refute the neo classical economics as some institutional economists are often inclined to. It is rather considered as complimentary to neo classical economics and attends to critical shortfalls in this domain such as frictionless markets and perfect information.

1.2 MOTIVATION AND THEORETICAL CONSTRUCTS

Institutions matter, especially when social and economic transformation is necessary. This position is central to this thesis. Institutions are in essence understood to be 'collective action in control of individual action' as defined by John Commons (1934: 69). This theoretical premise finds its home in the realm of institutional economics and in the tradition of the early institutionalists such as Thorstein Veblen and John Commons. Vink (1986), in motivating the need for an institutional approach, discussed the function and origin of institutions. Institutions are understood to supplement the market where the market cannot function, and in a world of imperfect information institutions carry information about the expected behaviour of other agents to better coordinate economic activity. In a market economy and given perfect information, such coordination would instead be directed by the price mechanism. Institutions are created: (i) by human design, (ii) through explicit bargaining, or (iii) by evolution.

In defining the nature of his institutional economics, Commons identified some key features of the discourse that underpins much of the institutional approach. First, he argued that "conflict of issues", as opposed to "harmony" is the starting point of institutional economics. Second, he explains that "duty and debt" as opposed to "liberty and love" are the foundations of institutional economics. Third, he departed from the premise that "administration is more important than legislation" where "legislation furnished authorisation but administration is legislation in action". Lastly, "activity" as opposed to "pleasure and pain" is the focus of institutional economics (Commons, 1964: 52, 91, 97, 107). The works of Commons are well acknowledged to have inspired the subsequent work of the likes of Oliver Williamson and the parallels of the above premises with the three-tier analytical framework for the economics of institutions (i.e. embeddedness, governance and marginal conditions) put forward by Williamson (1999) are thus not incidental. The first two aspects raised by Commons relate well to Williamson's first tier of embeddedness and social capital. The third aspect relates to issues of the institutional environment and governance, which is Williamson's second tier. Lastly the focus on activity draws attention to marginal conditions and transactions, similar to Williamsons' third tier and his insistence on the transaction as the key unit of analysis in the new institutional economics and subsequent transaction cost economics literature. This approach also constitutes the theoretical framework of this thesis.

The institutional approach to studying economic issues is not considered a fundamental departure from the neoclassical paradigm. The neoclassical approach that treats individuals as sovereign is individualistic, rationalistic and utilitarian, and it can be credited for shaping economic thinking and analysis in a dominant way. This intuition remains critical to economics. However, its reliance on the market as the dominant mode of coordinating economic activity has become increasingly questioned because this is premised on static efficiency, instead of the more realistic dynamic efficiency (Liebenstein, 1976). Markets may therefore not be the only, or the most efficient form of coordinating economic activity.

Markets do have merit in stimulating innovation, which remains a neglected aspect of Adam Smith's work, due to his preoccupations with the 'invisible hand'. Ronald Coase and Oliver Williamson, on the other hand began looking at inter- or intra-firm coordination to enhance efficiency, reduce transaction costs, and curtail opportunism. Alfred Chandler (1990) argued the merits and realities of intra-firm activity and the emergence of the modern corporation as a functional response to the demands of modern markets, technology and capital. Extending this debate into the integration and disintegration of the modern firm is an enticing prospect, but falls beyond the scope of this thesis.

The need for an institutional approach to studying economic issues is now well acknowledged, though other disciplines in the humanities can claim a better disposition towards institutions. Studies in the agricultural economics field in South Africa using an institutional approach commenced with the work of Vink (1986). Ortmann (2001) provides an exposition of the new institutional economics applied to South African agriculture and supply chains

Most studies are motivated by a general recognition of the role of institutions in framing economic outcomes and end up in the new institutional economics and subsequently transactions cost economics. This favouring of the transaction cost approach in the Williamson tradition has found appeal due to its ability to predict structural and organisational outcomes such as the efficient boundaries of firms, internal organisation, contractual relations, incentives, etc. Methodologically, it enables analysts to employ the empirical and mathematical rigour that has become a feature, and too often the purpose, of economic research. Again the danger of reductionism in the study of human economic behaviour looms as cautioned by the old institutional school. Hence the necessity for revisiting the old institutional economics and maintaining pliability in institutional inquiry. This inclination has influenced this thesis in two ways. First, it diverted the latter part of the work towards the old institutional economics and the role of social capital in shaping institutions and economic behaviour. Second, it reverts to theories on the nature of the firm that complements the transaction cost approach. The transaction costs approach is thus only used where it is found most effective in analysing vertical integration between firms and the relevant *ex ante* incentives and the *ex post* governance aspects (Williamson, 2003).

Given uncertainty, institutions are the mechanisms used to structure human interactions. Institutions are the rules of the game of society and provide a framework of incentives that shape economic, political and social organisation. Institutions are composed of (i) formal rules (laws constitutions, rules), (ii) informal constraints (conventions, codes of conduct, norms of behaviour), and (iii) the effectiveness of their enforcement. Enforcement is carried out by third parties (law enforcement, social ostracism), second parties (retaliation), or by the first party (self-imposed codes of conduct). Institutions, like technology, are key in determining economic performance by influencing the cost of production, which includes input costs and transaction costs.

Institutional analysis is mostly occupied with inter- and intra-institutional activity. However Demsetz (1997) argues that *how* firms function does not explain *why* firms exist. The origin of firms is as important in understanding institutions. It is to this aspect (i.e. the nature of the firm) that the latter part of the thesis shifts. In essence, the classical firm is a contractual structure with (1) joint input owners, (2) several output owners, (3) one party who is common to all the contracts of the joint inputs, (4) who has rights to appropriate any input's contract independently of contracts with other input owners, (5) who holds the residual claim, and (6) who has the right to sell its central contractual residual status.

There are several explanations for the existence of firms:

(i) *Risk distribution.* Firms exist due to the need to distribute risks and uncertainty efficiently among cooperating parties (Frank Knight).

(ii) *Transactions costs.* Firms exist to economise on transaction costs i.e. when the costs of market coordination exceeds the cost of internal coordination (Ronald Coase).

(iii) *Opportunism.* Firms exist to guard against opportunism or quasi rent seeking (Oliver Williamson).

(iv) *Specialisation.* Firms exist because production is more efficient when done by specialised units that offer greater consumption utility.

(v) *Technological separability.* The boundaries of firms are likely to be determined by the extent of bulky technological inputs i.e. asset specificity (Oliver Williamson).

(vi) *Incomplete contracts.* Firms arise when people write contracts that are essentially incomplete due to bounded rationality, and non-verifiability of variables. The allocation of power and control thus become necessary (Oliver Hart).

(vii) *Property rights.* Firms are established to ensure ownership and the residual rights that accompany such ownership and equity.

(viii) *Power.* Firms confer ownership, which is a source of power when contracts are incomplete.

(ix) *Monitoring labour effort.* Firms exist as long as those with the residual rights they are superior in monitoring effort contributions i.e. guarding against shirking behaviour (Armen Alchian and Harold Demsetz).

(x) *Economising on inputs.* Firms are a form of centralised monitoring over efficient production (Yoram Barzel).

(xi) *Engagement between ownership and control.* Modern firms are sustained as optimal forms of engagement between *control* by specialised managers with tacit knowledge, and *ownership* by those with the residual claims (Fama and Jensen).

(xii) *Bounded rationality.* Firms enforce structural limits on entrepreneurs who understand that they operate under risk and uncertainty that stem from limitations on human rationality (Herbert Simon).

(xiii) *Administrative Unit.* A firm is an administrative unit that can extend over time in pace with the internal dynamics of the firm (Penrose).

Understanding the purpose for the existence of institutions like firms, essential in gaining insight into their functioning and behaviour. Such understanding is valuable in institutional analysis and planning interventions to effect positive change in behaviour and economic outcomes.

1.3 KEY THEMES

The thesis also embodies certain key thematic propositions that are considered as integral to institutional analysis and an understanding of the nature of institutions. Each of these is intended to show that 'institutions matter', and refer to the following:

Social capital matters. Social capital and institutional embeddedness formed over a lengthy period are critical in shaping the nature of institutions and its parameters in the longer term. In addition it tends to be a valuable and often latent resource that is necessary to sustain and safeguard relations and transactions in an attempt to retain

THE ECONOMICS OF INSTITUTIONS			
	Level	**Purpose**	**Theory**
Level 1	**Embeddedness**: (Informal institutions, traditions, norms, religion, culture, socio-political imperatives, etc.)	Protection, preservation, power	Social theory
Level 2	**Institutional environment**: Formal rules of game: (property rights, laws, constitutions, etc.)	First order economising: Get the institutional environment right	Economics of property rights Positive political theory
Level 3	**Governance**: Play of the game: (aligning governance structures with transactions)	Second order economising: Get the governance structure right	Transaction cost economics
Level 4	**Neoclassical analysis**: Performance: (optimality, prices, quantities, incentives, etc.)	Third order economising: Get the marginal conditions right	Neoclassical economics Agency theory

1.4 COMPOSITION OF CHAPTERS

The thesis is a compilation of papers that were drafted, published or delivered at appropriate scientific meetings. Each paper hence constitutes a chapter and set out as follows:

(i) The New Institutional Economics and Agribusiness Development: Theoretical Approaches to Development Challenges (2002). *Invited paper delivered at the annual conference of the Agricultural Economics Association of South Africa, Bloemfontein.*

(ii) Bridging The Small-Big Divide: A Transaction Cost Approach to Enterprise Modelling For Mussel Mariculture in Saldanha Bay (1999). *Paper published in Agrekon*

(iii) Appraising the Prospects of Contract Farming in Oyster Production in South Africa (2000). *Paper delivered at the annual conference of the Agricultural Economics Association of South Africa, Langebaan.*[1]

[1] Paper (ii) and (iii) were combined in a paper entitled: Transactions Costs in Contract Farming Models for Mussel and Oyster Farming in South Africa. Organisational and Management Implications (2001). *Paper was published in the International Journal of Aquaculture Economics and Management.*

(iv) A New Institutional Economic Analysis of Large Fresh Produce Markets: Implications for formal and informal sectors under changing market conditions (2000). *Unpublished paper.*

(v) An Institutional Economic Appraisal of Worker Equity Schemes in Agriculture: The Incomplete Contracts Approach to the Separation of Ownership and Control (2003). *Paper delivered at the annual conference of the Agricultural Economics Association of South Africa, Drakensberg.*

Chapter 1 serves as an Introduction and Chapter 7 serves as a Conclusion.

1.5 MOTIVATION OF CHAPTERS

The sequence of chapters comprising this thesis follows the Commons-Williamson approach to the economics of institutions outlined above. Chapter 2 is intended to provide the theoretical basis of the thesis, drawing together different theories to compose the broad theoretical framework. Further refinements, detail and applications are made in later chapters.

Chapters 3 and 4 departs from the proposition that transactions costs are significant, that transaction costs influence the marginal conditions facing the firm, and that transaction costs affect the nature of the firm. The chapters are inspired by the theoretical positions of Williamson (1975; 1986; 1991; 1999) and by Binswanger and Rosensweig (1985) as well as the transaction costs analytical methods and applications of Delgado (1998), and Key and Rungsten (1999). The contributions of these chapters are essentially threefold. First, they apply the frameworks to new industries (mussels and oysters). Second, transaction costs are identified extensively. Third, they elicit institutional design responses to promote more efficient and competitive firms. Essentially these chapters deal with the 'Governance' and 'Marginal Conditions' levels in Institutional Economics described earlier.

Chapter 3 is applied to mussel farming where the existence of large firms is contrary to the neo classical intuition that favours efficiency and utility maximisation criteria. This is in the context of established efficiency gains of small growers. The explanation lies in the existence of transaction costs that are identified, and that impedes market interaction. Alternatives are then offered that addresses the transactions costs incrementally and allows for the capitalising on the efficiency gains of smaller firms through contracting. Chapter 4 is closely related to chapter 3 and applied to oyster farming. Contract farming is proposed as a suitable enterprise form. The analysis is aimed at identifying the imperfections associated with this industry and enterprise form. The purpose is to design an enabling contracting arrangement.

Chapters 2 and 3 hence deal essentially with transaction costs and organisational design. The necessity to move beyond the transaction cost approach is acknowledged and stems initially from the early critiques of profit maximisation by Herbert Simon (bounded rationality) Harvey Liebenstein (X-efficiency) and Alchain and Demsetz (Demsetz, 1997). This is well documented by Dietrich (1994). The last two chapters deal more with the 'Embeddedness and Social Capital' levels in Institutional Economics as proposed by Williamson (1999) and Hollingsworth and Boyer (1997). The necessity of this level of analysis, in this thesis, was realised after the application of Transaction Cost Economics, questioning the existence of transaction costs and the *ex post* governance structures.

Chapter 5 and 6 attends to the first and second tier of analysing institutions of Williamson referred to earlier. Chapter 5 is applied to large fresh produce markets and involves an institutional economic analysis is conducted to identify the factors inducing institutional change and to show how these bring about maladaptation manifested in transaction costs. These costs stem mainly from institutional embeddedness, opportunism, and asset specificity, which resulted in bureaucratic costs, moral hazard, rent seeking, adverse selection, prisoners' dilemma, and a lack of credible commitments. The identified transaction costs aspects are subsequently used in proposing more appropriate governance structures.

Chapter 6 is much focused in the Williamson's first tier and applied to worker equity schemes observed in commercial agriculture. The analysis is aimed at identifying institutional incompleteness that stem from the lack of verifiability related to social capital, embeddedness, governance and micro performance. The analysis leads to the incentives and innovations required to make equity schemes, as a type of shareholder contract, more complete and credible in an economic empowerment context in South Africa.

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CHAPTER 2

THE NEW INSTITUTIONAL ECONOMICS AND AGRIBUSINESS DEVELOPMENT: THEORETICAL APPROACHES TO DEVELOPMENT CHALLENGES

2.1 INTRODUCTION

Economic development efforts in agribusiness have much to gain from the theories and approaches related to the New Institutional Economics (NIE). Much of the analysis in agribusiness or the development field favours a departure from the Coase theorem (1937) towards Williamsonian transaction cost analysis. This departure is also the case in South Africa where the economic environment is rife with transaction costs and institutional complexity. This approach often leads to the correct identification of transaction costs within the confines of bounded rationality, information asymmetry, opportunism and asset specificity (Williamson 1975, 1985) and moves on to corrective measures.

This chapter goes beyond this approach by probing into the causes of transaction costs, which by Williamsons' own acknowledgment often emanate from the institutional environment that is shaped by embeddedness and social capital. The latter has been traditionally the preoccupation of social scientists, but social capital has become increasingly important in institutional economic analysis. It is especially the old institutional economists, who retained a key interest in this area, to whom this institutional intuition can be attributed. The central proposition in this chapter is that institutions, as shaped by embeddedness and social capital, matter in determining the economic performance of firms, markets and economies. Much attention is subsequently devoted to understanding social capital and eliciting implications for economic development.

The paper commences with an overview of institutions in economics by identifying what institutions are and outlining their Coasian premise. The old and new institutional economics are then contrasted to illustrate the merits of staying in touch with the old institutional tradition that continuously reinforces and expands the field of institutional economics. Its ability to better deal with social capital is a particular case in point. This discussion ends with some remarks around institutional analysis where the role of social capital and embeddedness is acknowledged. The next section deals with transaction cost economics, where the purpose is to identify the theoretical shortcomings of this theory with a view to moving beyond transaction cost analysis. This discussion then leads to the key emphasis of this paper i.e. Social Capital. Finally, the theoretical frameworks are used to elicit implications for economic development and empowerment efforts in agribusiness in South Africa.

2.2 INSTITUTIONS IN ECONOMICS

2.2.1 What are Institutions?

As shown in Chapter 1, institutions are the mechanisms used to structure human interactions in the face of uncertainty. Institutions are the rules of the game of society and provide a framework of incentives that shape economic, political and social organisation. Institutions are composed of (i) formal rules (laws, constitutions, rules), (ii) informal constraints (conventions, codes of conduct, norms of behaviour), and (iii) the effectiveness of their enforcement. Enforcement is carried out by third parties (law enforcement, social ostracism), second parties (retaliation), or by the first party (self-imposed codes of conduct). Institutions, like technology, are key in determining economic performance by influencing the cost of production, which includes input costs and transaction costs.

2.2.2 Neoclassical and Marxist Limitations and Ronald Coase

Neoclassical economics is concerned with the workings of markets based on certain premises such as perfect information, homogenous products, ease of entry, and zero transaction costs, etc. Neoclassical theory survived due to its uncompromising attention on scarcity, individuals and competition as prerequisites for economic activity. The theory is however, rather static, as it does not address issues of how markets have evolved. The introduction of historical tradition into economic theory, which then induced dynamism into the theory, is largely found in the contributions of Douglas North, *inter alia.* Douglas North on the other hand was concerned about the transaction costs that determined overall economic performance. Early works in institutional economics by the likes of Thorstein Veblen and John Commons provided valuable insights into institutions and instilled critical thinking around institutions and economics. However, they failed to provide clear theoretical frameworks that could be used in institutional economic analysis.

Similarly, while Marxist theories were primarily concerned with economic institutions and provided valuable critique, they never posed a serious alternative to neoclassical theory. Its limitations of Marxism include making the amorphous concept of class the unit of analysis, whereas the NIE uses the transaction as the unit of analysis.

Ronald Coase, first addressed the neoclassical shortcomings and subsequent failure to explain economic performance over time and under different institutional contexts, in his seminal 1937 paper on 'The Nature of the Firm'. Coase addressed the issue of the cost of economic organisation and the transaction costs, which determine the existence of firms. Coase's next important contribution came in 1960 with his paper 'The Problem of Social Cost' where he was able to connect neoclassical theory to institutional analysis. He concluded that when transaction costs were positive, institutions mattered and determined the subsequent market structure.

2.2.3 The Old Institutional Economics (OIE)

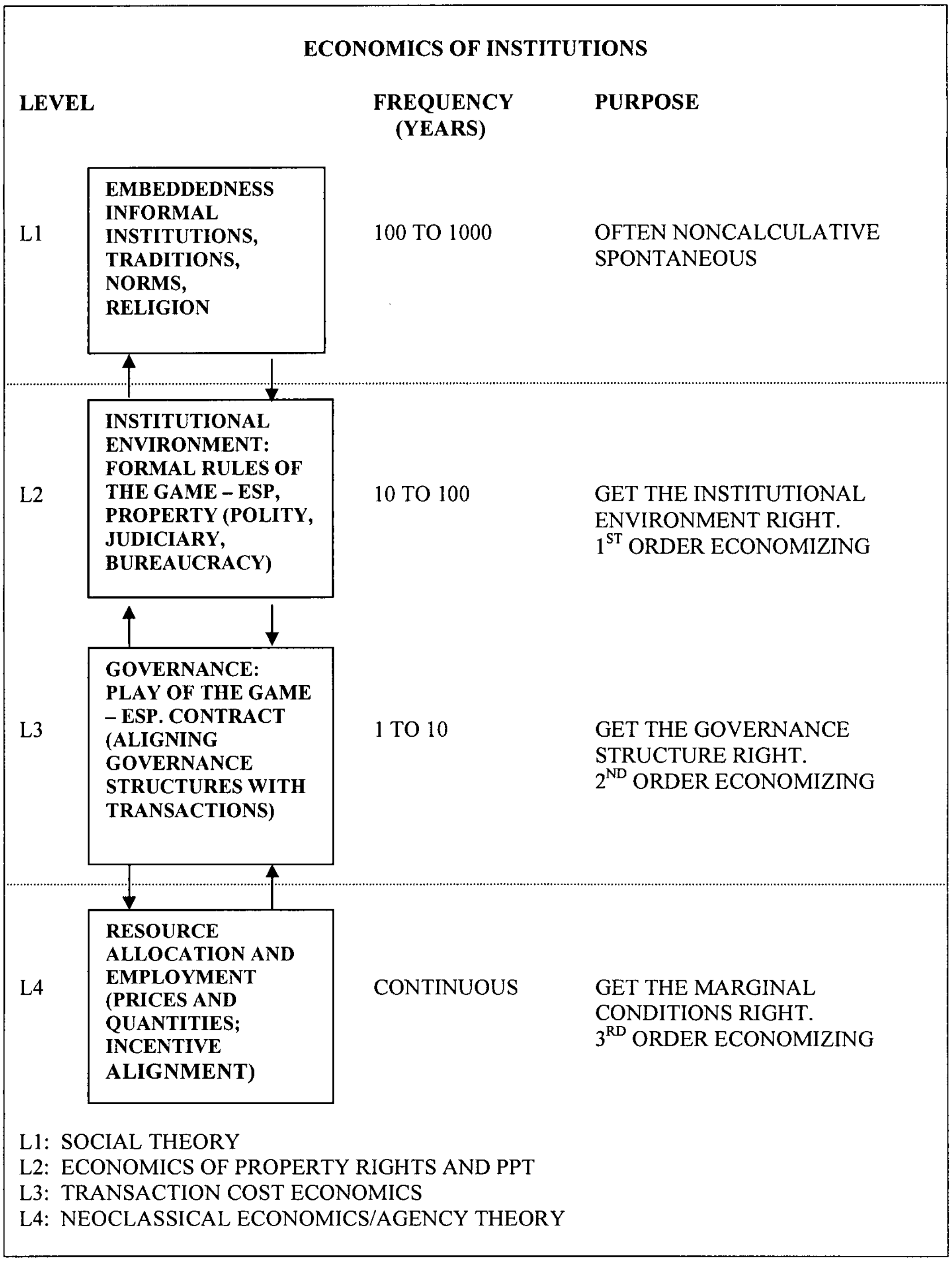
The old institutionalism is commonly associated with the works of John Commons, Clarence Ayres, Wesley Mitchell, Thorstein Veblen, and more recently Alan Gruchy (Rutherford, 1996). The OIE does not represent a single unified or well-defined body of thought, method or line of research. It however embodies two main ideas. The first is associated mainly with Thorstein Veblen and generally addresses the effects of new technology on institutional schemes, and the extent to which established social conventions and vested interest react to such change. The second stream is mainly associated with the works of John Commons and more recently represented in works of Warren Samuels and Allan Schmid (Samuels and Schmid, 1981). Their research focuses on law, property rights, and organisations. Institutions are considered the outcome of formal and informal processes of conflict resolution, the criteria of success being whether the institution has generated a 'reasonable value' or 'workable mutuality' out of conflict (Rutherford, 1996). The second stream is closer to the NIE, but despite the complementarities differs significantly.

The OIE differs from the NIE in its cynicism about markets and the supremacy of individual preference, and favours government intervention and public scrutiny of private endeavours. Markets are viewed suspiciously for their tendency to create inequities in income, welfare, power, and economic opportunity. It is wary of the subsequent manipulations in markets, consumer behaviour, and technology, amongst others. Old institutionalists appear convinced of the power of institutions to mould individual aims and ideals and thus reject orthodox individualism. With OIE there is also a rejection of formal methods of analysis, favouring holistic approaches based on value judgements around issues such as equity and social justice. The OIE also rejects rational choice approaches. Old institutionalists consider the NIE too formal and abstract, and a theory that is too reductionist, individualistic, rational choice oriented, ignoring welfare criteria in appraisals, trusting of markets, and anti-interventionist (Langlois, 1986, 1989). The dispute between the OIE and the NIE centres on: (i) formal vs. non-formal methods; (ii) institutions as an outcome of individual action or *vice versa*; (iii) rationalism; (iv) invisible hand vs deliberate design outcomes; and (v) the appropriate role of government.

2.2.4 The New Institutional Economics (NIE)

The NIE grew from the OIE due to a frustration with its lack of theory, its preoccupation with holistic as opposed to individualistic tendencies, behaviouristic as opposed to rational choice approaches, and a failure to accept unintended and evolutionary processes in institutional development. The OIE is considered too descriptive, anti-formalist, holist, behaviourist, and collectivist (Rutherford, 1996). The NIE has developed into several strands as outlined by Cook and Chaddad (2000) and Rutherford (1996). These include a property rights strand (Alchian and Demsetz, 1973), public choice (Olsen, 1982), organisation and agency theory (Jensen and Meckling, 1976), and transaction costs (Williamson, 1975, 1985). Generally, the new institutionalism can be divided into a neoclassical and an Austrian-cum-Schumpeterian branch. A consistent clamouring exists to move away from the neoclassical core to an Austrian tradition where the focus is more on the spontaneous development of institutions out of individual action.

2.2.5 Institutional Analysis



Source: Williamson, 1999.

Figure 2.1: Economics of Institutions

The economics of institutions is often analysed in terms of marginal conditions (neoclassical economics) or transaction costs. There can be a real danger however, that this type of analysis could fall into the reductionism trap that the NIE often faces. Hence, it is important to retain what one may call an 'old institutional intuition'. The purpose is to avoid analysing economic effects (e.g. transactions costs, governance) without looking into the causes of such occurrences. Williamson concedes that the domain of the NIE (i.e. the Institutional environment and Governance) often operates under constraint of embeddedness. He thus proposes four levels of analysis, as depicted in Figure 2.1 above. Level 1 is associated with social theory, Level 2 and 3 with the NIE and Level 4 with neoclassical economics. Most advances in economics have been made in Levels 2, 3 and 4, and relatively little in Level 1. This also resembles the situation in South Africa and the purpose if this paper is also to open the debate on the implications of Level 1 in economic development and theory.

The following section deals with transaction cost economics (TCE). The underlying theory is briefly explained and a critique offered to illustrate the need to move beyond TCE. The purpose is to show that much of the shortcomings of the theory, though not serious, necessitate a look into the area of social capital and embeddedness to gain a fuller insight into institutional performance.

2.3 TRANSACTION COST ECONOMICS (TCE)

This section does not elaborate on what TCE but is rather intended to take a critical look at the theory. It begins briefly with the initial theoretical constructs of Coase and Williamson and elaborates on their shortcomings in fully explaining institutional performance.

2.3.1 The Coase Theory

It is commonly held that TCE commenced with Coase's (1937) observations that 'the main reason why it is profitable to establish a firm would seem to be that there is a cost of using the price mechanism'. Put differently, if the price mechanism can effectively allocate resources why should resource allocation be planned within firms? Coase did not use the term transaction costs first (the term is attributed to Arrow), but expanded on this concept in his 1960 paper on 'the Problem of Social Cost'. The Coase theory has since been subjected to considerable scrutiny and some shortcomings have been identified.

2.3.2 Critique

Dietrich (1994) identifies a number of theoretical problems with Coases advances on the Nature of the Firm. First, Alchian and Demsetz (1972) claimed that Coase's analysis is tautological, because suggesting that firms exists due to the relative costs of using the market mechanism could also imply that markets exist due to the relative costs of management. This reasoning simply leaves too much to be explained by transaction costs. Second, his analysis suggests that firms may substitute for markets, which fails to recognise the essential role of the firm as the management of a production distribution process (Fourie, 1989), especially in vertically integrated firms. Hence to claim that firms replaced markets implies that markets can exist in the absence of firms. Simon (1988 in Best 1990) broke with the neoclassical and Williamson tradition, as he does not explain firms in terms of markets, but markets in terms of firms. His contribution lies in his insistence that the firm is more than simply centralized authority, but a means of establishing enabling rules and rules of authority to encourage individual responsibility and gain from collective action. Third, the application of the theory to one-person firms is problematic. Last, the theory suggests that the firm can always revert to the markets when it itself fails to produce at lower cost. The problem here is that the market may not always be able to provide at lower cost, if at all. Nevertheless, while the above critique is fundamental it is not considered serious enough to completely negate the Coase theory.

Dietrich (1994) provides an elaborate critique of TCE. This critique stems from the assumptions around opportunism and the links between contracting costs and production costs. His critique can be summarised as follows:

(i) TCE considers the firm 'a lower cost producer' but ignores its fundamental role as a production-distribution unit and hence cannot sufficiently explain the existence of firms.

(ii) TCE assumed that market based resource allocation is possible, which need not be the case.

(iii) The centrality of opportunism is questionable.

(iv) TCE largely favours comparative static analysis whilst proper institutional analysis requires a dynamic perspective of evolving organisations.

(v) The tendency of institutions to evolve towards greater power as opposed to enhanced efficiency.

(vi) Limitations in the Williamson M-form representation of firms, especially for modern corporations.

(vii) The importance of introducing competitive dynamics with space for proactive learning behaviour.

(viii) Firms are also the embodiment of socio-political-cultural factors that endogenise aspirations and organisational routines.

The above critique, though important, serves to strengthen the theory and points towards integration with complimentary theories. In particular it calls for reconsideration around the evolutionary theory of the firm in the Schumpeter tradition, and for greater recognition of the role of social capital and institutional embeddedness. It is to the latter that this discussion now turns.

2.4 SOCIAL CAPITAL

The nature, existence and functioning of institution are much related to the social context in which institutions exist. The importance of social theory in institutional analysis was acknowledged in section 2.5. The social context often impact on institutions in form of social capital, which calls for greater attention on social capital in institutional economics.

2.4.1 What is Social Capital?

Social capital refers to the features of social organization such as trust, norms, and networks, which can improve the efficiency of society by facilitating coordinated actions (Putnam, 1993). It can be considered as 'moral resources' that increases with use and depletes when not used, which means that it can have virtuous or vicious cycles. Social capital is a public good as opposed to conventional capital which is a private good. It often gets produced as a by-product of other social activities. Trust arises out of two related sources: (i) norms of reciprocity, and (ii) networks of civic engagement (Putnam 1993). Societies with productive norms of reciprocity (i.e. dense networks of social exchange) are more efficient in constraining opportunism and resolving problems of collective action. Networks of exchange/engagement can be formal or informal, vertical or horizontal. These networks (clubs, societies, associations etc.) can be intense horizontal forms of engagement that can be a vital source of social capital in the following ways: (i) they increase the cost to defectors in prisoner's dilemma situations, they (ii) foster robust forms of reciprocity or acceptable behaviour, they (iii) improve information flows about trustworthiness, and they (iv) provide a template for continued engagement based on past successes. On the contrary, vertical networks cannot sustain trust and cooperation irrespective of its density. Here information flows are less reliable since subordinates hog information as a hedge against exploitation. It is also difficult to impose sanctions against opportunism. Such measures are less likely to be imposed upwards and more likely downwards. Granovetter (1985) claims that weak social ties (e.g. acquaintance and referrals) are however better at linking different social groups than strong ties (e.g. kinship, friendships). This implies that weak ties are important in forging business relations and initial transactions, often due to the false comforts brought by bounded rationality and information asymmetries.

2.4.2 Individualist vs Collective Societies

Anthropologists and social psychologists have always recognised the key role that culture, traditions, religion and the aggregate social context plays in people's behaviour and choices. This however was never adequately (if ever) integrated into economic analysis. Scholars like Avner Greif have produced some groundbreaking concerned with technological lock-in whereby inferior products become established in the market by virtue of historical disposition. Something similar could be said of 'institutional lock-in'. Also Huntington (1996) has provided a still controversial advance on macro socio-political path dependence of civilizations, which remains difficult to ignore.

Greif (1997) mentions three factors that make institutional structures path dependent. First, economic institutions are composed of cultural beliefs and organisations that are interrelated. Second, organisational development by itself is a historical process whereby past organisations determine future institutional and organisational development. Third, past institutions impact on the development of values and social enforcement mechanisms that inhibits flexibility in departing from past patterns of behaviour. Once again it is notable that collectivist societies resemble the developing world, whereas individualist societies resemble the western world. However, many countries today have become mixed in that enclaves of collectivist or individualist communities are found in each. These societies are interacting economically and socially to a much greater extent than in the past. The formation of hybrid institutional structures can therefore be expected, even though this aspect has not received much academic attention. The institutions evolving at the interface between these two societies may also be path dependent and would present a fascinating challenge for further institutional evolutionary analysis.

Markets are embedded in webs of social relationships (Granovetter, 1985). Extensive work on social capital and embeddedness and the implied path dependency in Africa is found in the work of Fafchamps (1999). Like Braudel (1986), he states three means of resource allocation: (i) gift exchange (subsistence), (ii) markets, and (iii) command and control (capitalist). In Africa, he found that gift exchange plays the most important role in allocation of subsistence goods. In developed economies command and control dominates the allocation in large corporations and public agencies. Hence in Africa markets are the primary allocation mechanism after gift exchange, whilst hierarchies dominate capitalist economies (Fafchamps, 1999). In Africa hierarchies are small (except the state), which limits its reliance on the judiciary. Often the large informal economy in Africa is associated with high transaction costs, which are best dealt with through long term trading relationships like relational contracting.

Relational contracting and its ability to deter cheating were demonstrated by Granovetter (1995) and Shapiro and Stiglitz (1984). Subsequently, relationships become their own collateral (Kranton, 1996). Networks of relationships shape market exchange, facilitate market entry, check opportunism, and serve as a referral system. Networks however bring certain externalities like nepotism and insularity, which limit productivity growth in its attempt to perpetuate itself like prosperous communities do. Barr (2000) and Fafchamps and Minten (1998) provide evidence of networks and related effects in Sub-Saharan Africa. Fafchamps (1999) argues for network renewal by cooptation that requires network screening and effective referrals. He further plays down the role of ethnicity, family and religion in sustaining networks and finds that for the most part, networks result from frequent business interactions.

2.4.4 Enforcement

As stated earlier, enforcement is considered a third dimension of institutions. Four levels of enforcement can be distinguished. First is values-based individual self-enforcement where principals contract with agents whose value systems (religion, ethics) are strong enough to prevent opportunism or default. Second is second party enforcement where principals contract with agents based on the principal's ability to enforce the contract through for example hierarchy, reciprocity or future commitments. Third, is third party informal enforcement where the principal will contract with an agent based in the principal's ability to enforce the contract through peer pressure or community ostracism. Fourth is third party enforcement through state assistance via the judiciary and government policing.

In collectivist societies, contract enforcement is achieved mainly through informal economic and social institutions. Here, cultural beliefs support an economic self-enforcing collective punishment. Improper opportunism is curtailed by a credible threat of collective economic punishment that could also be detrimental socially. This is made possible through an extensive and active social network built on kinship and reciprocity. In individualist societies cultural beliefs bring a reliance on second party enforcement supported by formal third party enforcement. There is little informal economic enforcement or self-enforcing collective punishment due to low reliance on kinship and networks for information transmission. Here, a legal system based on state authority is essential to enforce contractual obligations and mitigate free-rider problems and opportunism (Greif 1997).

2.4.5 Embedded Autonomy

The East Asian examples of economic success bring forth the issue of embedded autonomy as advanced by Evans (1995). Embedded autonomy refers to the insular network of a bureaucratic elite in charge of policy making and can also be considered as the political economy of the developmental state. This insulation Evans regards as the key to success of the East Asian states. Bardhan (2000) however cautions against the Olson-type collective action problems like 'prisoners' dilemma' and difficulties in formulating clear and cohesive goals, especially in heterogeneous societies. Further, such insulation may bring efficiency losses associated with the lack of accountability, inadequate localized information, dealing with changes in market and technological conditions, and reduced risk-taking, all of which ultimately affect long-term economic performance. Nonetheless, embedded autonomy is acknowledged as an important source of social capital with proven merit in economic development spearheaded by a developmental state and reinforced by informal yet insular peer relations among the elite. In a sense it is the marriage of an 'encompassing interest' with personal gain.

2.4.6 Agency / Hierarchy

Agency relations in collectivist societies tend to be horizontal, with traders serving as agents for several merchants and *vice versa.* There is little evidence that social class based on wealth and heritage dictates agent relations and inducing hierarchy. On the contrary, agent relations in individualist societies tend to be vertical, based on wealth and class, which inevitably lead to an increasingly skewed wealth distribution and social disparity (Greif 1997).

2.4.7 Ownership and Control

The historical analysis of Greif (1997) provides further insight into the evolution of the firm in collectivist and individualist societies respectively. In both societies the family firm was initially relied upon as it served to reduce transaction costs. However, the further historical development differs starkly. In collectivist societies there is little incentive to introduce an organisational form that reduces the likelihood of forced separations between ownership and control. In individualist societies individual firms became family firms, but family members became replaced by external investors eventually, and equity thus became tradable. This meant a separation of ownership and control, which required appropriate institutions to surmount contractual problems and improvement in information transmission techniques and accounting procedures.

2.4.8 Trust

Trust is defined as 'a threshold point on a probabilistic distribution' Gambetta (1988). It is a type of expectation needed to cover for vulnerability (Barr, 2001). Trust entails a prediction about the behaviour of an independent actor and is an important component of social capital (Putnam, 1993). Its role in trade relationships is well acknowledged (Fukuyama, 1995 and Gambetta, 1988). Ethnicity, religion and cultural aspects are often understood to foster and sustain trust. However recent evidence suggests that trust is not absolute, since it is fostered by repeated interactions (Barr, 2001, Masuku *et al*, 2002). Aspects like ethnicity and familial relations are but starting points but cannot sustain trust. Granovetter (1985) states that 'trust is generated and malfeasance discouraged when agreements are embedded in a larger structure of personal relations and social networks.

2.5 IMPLICATIONS IN A SOUTH AFRICAN CONTEXT

A central premise of this paper is that institutional economic theory provides valuable insights and can make useful contributions in addressing developmental challenges. In this section, the preceding theories are applied to some key economic development challenges in South Africa.

2.5.1 Constructive Engagement

Given that social capital can be either vicious or virtuous it becomes paramount that economic planning be aimed at creating a virtuous environment. 'Friendly planet' versus 'Gilded cage' scenarios are for example, well explicated by Sunter and

Hillbury (2001) in their discussions around global scenarios. This follows in the tradition of Sunter's earlier works on 'High-road' and 'Low road' scenarios for South Africa in the late 1980's. They generally argue that the tendency of the world's rich to disengage from the poor by ceasing dialogue and similarly divestment, insularity, and the like, would ultimately lead to disastrous outcomes. It is interesting that in this context they presented scenarios that included terrorist attacks on western cities only a few months before September 11, 2001. The scenario follows in the vein of Huntington (1996). This threat holds equally for South Africa, given the prevailing socio-economic dualism. Recent occurrences in Zimbabwe around land reform, when considered in this context, also raise questions as to whether in that country the rich constructively engaged with issues of poverty, deprivation, restitution and sustainable economic growth. There are thus ominous overtures in the insistence by Douglas North and others that in the development of economies and institutions 'history matters'. Therefore rural and agribusiness development must occur within the context of constructive engagement between the privileged and disadvantaged.

2.5.2 Remediableness

The requisite economic engagement referred to above has to take cognisance of Williamson's proposition of 'remediableness'. Here, social and economic constructs are accepted as less than optimal (sequential), since the emphasis is on constructs that are suitable. This position stems from his fundamental assumption of bounded rationality. An acceptance of the remediableness principle creates the required space and encouragement for the emergence and proliferation of various models of economic engagement. It embraces imperfections and failure in the ultimate pursuit of sustainable economic institutions. It further induces Schumpeterian constructive dynamism, which is essential for the positive evolution of institutions and the creation of workable outcomes. Once an 'encompassing interest' is created and 'credible commitments' forged, remediableness becomes the public good (social capital) that brings tolerance and space for experimentation with models of constructive engagement. In essence, it means that any social or economic construct must be accepted as imperfect and can be incrementally improved as better information is generated or emerge in the process. Another implication is the emphasis placed in credible processes as opposed to idealized and perfect outcomes.

2.5.3 Models

Building and pursuing economic models of engagement have historically often been pursued in a myopic and dogmatic fashion e.g. collective farms, contract farming, sharecropping, worker equity schemes. In South Africa this danger looms too, considering the implied forced-collectivisation of the land reform programme and the emergence/preoccupation with equity share schemes. Again the adoption of remediableness creates the space for present day innovations of constructive engagement. This allowance for economic experimentation and incubation (if properly incentivised) can unleash an entrepreneurial vigour, which is critical for economic growth. Embracing failure, as individualistic societies do, would serve to reduce the fear of risks and transaction costs, which so often impedes economic development. However, there is a real and present risk of opportunism by those who only seek imminent gain without committing to long-term sustainable economic development. Olson (1982) discussed the manner in which rent-seeking by small powerful interest groups can weaken economic outcomes. Monitoring costs therefore have to be incurred both *ex ante* and *ex post*. It further requires some kind of economic compact between the public and private sectors avoid capital and entrepreneurial flight due to experimental failure and opportunistic behaviour. This may create the embedded autonomy propositioned by Evans (1995) as necessary for economic development and equates to the 'encompassing interest' that Olson (1982) advocates in the pursuit of productivity and equity gains for society.

The separation of ownership and control is a subject afforded much attention in economics literature, but which finds greater application outside of agriculture. The industrialization of agriculture and the increased cost of land have perhaps reopened the debate in agriculture. Equity schemes as a means of worker empowerment are relevant in this context and a few observations can be made. First, they can be seen as a means of constructive engagement, but with much space for opportunism given human and information asymmetries. Second, in the absence of effective *ex post* monitoring systems, opportunism will inevitably manifest given the dire lack of social capital. Third, the model is vulnerable to (Olson-type) collective action problems. Fourth, there seems little 'incentive to alter' (Bardhan) the model, so that entrepreneurial internal dynamism drives economic performance. Fifth, government agencies responsible for supporting the model employ individuals with 'low-powered incentives' (Williamson) to ensure that the model works once supported. Subsequently, the model suffers from poor financial performance, worker frustrations, and increased dissatisfaction (Karaan, 2002, Tregurtha and Karaan, 2001). The problems experienced can be summarized as a combination of a lack of internal dynamism, covert opportunism, collective action problems and generally incomplete design. The latter specifically refers to the inclusion of high-powered incentives that encourage entrepreneurship and the problem of missing markets. The most important missing market is the market for empowerment equity, which once created in the firm, can hardly be traded in the open (or concessionary) market. This is an area that development finance institutions have to pay attention to.

Economic models other than equity schemes, contract farming and subsistence farming have rarely surfaced in the South African land reform programme. A myriad of contract models are possible and need greater experimentation. Again, however, contract monitoring is necessary in the face of opportunism and asymmetries. A key challenge is how best to combine the collectivist and individualist traits in enterprises to ensure positive path dependency. For the time being it is important to withhold judgment and encourage risk-taking.

Empowerment models can be assessed in terms of the creation of physical and human capital. This is again used in addressing the fundamental economic problem of unlimited human needs and limited resources which encourages trade. The litmus test for economic empowerment is therefore whether an asset is created that can be traded in the open economy. In the likely event of missing markets, discretionary markets can be created, not in parallel but rather to be eventually integrated into mainstream markets once market failure is dealt with effectively. Most agricultural empowerment models seem to have failed this test thus far.

2.5.4 Land Reform

The necessity and intricacies of land reform have been well presented by Binswanger, Deininger and Feder (1995), encapsulated in their title '*Power Distortions, Revolt and Reform in Agricultural Land Relations*'. North (1991) has shown extensively that property rights and the structure of institutions follow the relative bargaining positions of social groups and their prevailing material conditions. North (1991) as well as Hayami and Ruttan (1985) have provided several examples of these. However, the old institutionalists appear to be more aware of the hindrances that can be caused by the vested interests of powerful groups in the face of perceived losses. Under such circumstances of necessary change perceived as threatening by powerful groups, Olson (1972) identifies certain collective action problems. First is a case where the losses of the potential losers are concentrated and apparent and the gains of the potential gainers diffused. This leads to skewed bargaining positions that often render inequitable outcomes leading to further bargaining and conflicts. Olson also suggests that collective action problems are exacerbated when societies are more heterogeneous. Bardhan (2000) argues that heterogeneity, collective action problems and public bureaucracies bring further complications, especially since it is difficult under these circumstances to devise high-powered incentives for public officials. He mentions the common agency problem (i.e. the civil servants have to serve multiple agents) and the multiple task problem (i.e. the civil servants have to pursue multiple goals). Consequently, civil servants are prone to be captured by interest groups and also tend to build elaborate checks and balances that ultimately retard change. The above issues serve to elucidate that some of the problems experienced with land reform in South Africa are not uncommon and stem from the prevailing institutional peculiarities of the country.

In this context, some observations are possible. Firstly land reform will not cease until greater social justice is achieved, despite its lack of pace and direction. Secondly, the process is always prone to opportunism by powerful groups like both white and black elites potentially have most to lose or gain respectively. Public bureaucracy is and continues to have every potential to retard progress. Thus market-assisted mechanisms are required to induce efficiency on condition that the agents and monitors can all be monitored.

2.5.5 Building Social Capital

Trust is an important component of social capital and investments in empowerment ventures requires an extraordinary degree of trust to attract capital. This includes exogenous trust by third party investors and financiers as well as endogenous trust among the contracting parties. Trust being the outcome of repeated interactions is thus deficient in the initial stages and can at best be provided, to commence with and through referral (i.e. weak ties). This referral system could well operate via catalytic interventions of benevolent agents with an encompassing interest. Hence, current workers, existing black farmers and entrepreneurs are the key target groups. This implies network renewal across the racial divide through cooptation. Theory suggests that under such circumstances where transaction costs are likely to be high, parties who need to forge credible commitments may opt for longer term relational contracting. This creates commitment and limits short-term opportunism whilst is allows for a defined evolutionary process. There is evidence in South African history where this system could have developed, though imperfectly if not halted by racist politics. Van Onselen's (1996) work on the Life of Kas Maine provides an account of a black sharecropping history. Van Onselen states "the troubled relationship between black and white South Africans cannot be fully understood by focusing on what tore them apart and ignoring what held them together". It is the latter that needs to be rediscovered as social capital to sustain new forms of empowerment in agricultural partnerships.

Social capital has become badly eroded, remained undeveloped, or remained captured among insular groups in South Africa. This assessment is by no means ominous. Putnam (1995) provides some consolation in claiming that often business relationships are developed from 'weak ties' and lead to an increase in social capital with positive interactions over time. The critical step is therefore the initial advance as a goodwill-based gesture or referral with limited opportunism. Goodwill is not enough. The situation represents clear market failure and justifies state intervention in creating an enabling environment with effective incentives and checks on opportunism. In addition it may be necessary to cater for missing markets for equity, human capital, and information. Finally, likely unintended consequences such as capital flight due to some failures, diluted equity due to unforeseen volatility, and cooperative action problems must be managed and catered for.

Developmental efforts should target those with whom social capital can be developed with greater ease and multiplier effects. There is a current preoccupation that this group should be existing farmworkers. The issue is somewhat contentious despite all the possible human capital arguments in its favour. Firstly, workers are not entrepreneurs, though some may elevate to this level, but this is not assured. Second, social capital between workers and employees is often distorted by paternalism, shirking behaviour, bad labour practices, insubordination and the like. Thirdly, worker groups are beriddled with cooperative action problems. Power relations between employers and employees may stem entrepreneurship. These remarks are not meant to discourage the practice of worker empowerment. Instead it is intended to urge for a balanced approach in identifying empowerment beneficiaries. Black farmers, entrepreneurs (including the new elite), and the youth must be equally targeted.

2.5.6 Entrepreneurship

Most of the critique levelled against transaction cost economics and the theory of the firm ends with the recognition of the critical role of entrepreneurship and constructive internal dynamism as key determinants in the evolution of institutions or the learning firm (Schumpeter, 1942; Penrose, 1959 in Best; Best, 1990; Dietrich, 1994). The firm is generally seen as a central authority (Coase), functioning as a unit/team (Penrose), keeping a check on strategic behaviour (Alchian and Demsetz), entrepreneurial (Schumpeter), minimising production costs (neo classical theory), minimizing transaction costs (Williamson), and inducing efficiency through the external competitive environment (Porter). As stated earlier, economic development efforts must primarily be aimed at unleashing the Schumpeterian entrepreneurs and organisations with the requisite internal dynamism to survive in a competitive environment.

2.5.7 Embedded Autonomy

The successes achieved with economic development through embedded autonomy are hard to ignore. It presents a proven approach at inception, especially in East Asia despite the longer-term efficiency losses pointed out by Bardhan (2000). This approach calls for the development of a technocratic elite who would collaborate with the developmental state in forming an empowerment politburo. This group can be representative of demographic realities as far as possible but should co-opt and actively engage (through incentives) those with economic power. This by itself may create a network of engagement and reciprocity as the active ingredients in social capital. They would be more tolerant of their own failures and could become increasingly galvanized in the pursuit of economic objectives. Demographic representation is essential in avoiding group favouritism against which Olson has cautioned.

2.5.8 Supply Chains

Finally a note on value chains is necessary given the continued industrialization of agriculture and the disappearance of the farm problem (Bonnen and Schweikhardt, 1999). NIE analysis of supply chains favour the investigation of transaction costs with a view to identifying chain inefficiencies and suggesting corrective measures through improved governance, logistics, information flows and vertical coordination. However, one is often confounded when high transaction costs are identified which stem from the institutional environment and embeddedness (see Figure 2.1). It is therefore necessary to pay attention to the causes of transaction costs as opposed to just the effects, in order to effectively deal with it. Embeddedness factors (distrust, racism, paternalism, social dominance, etc.) often account for the lack of participation by emerging entrepreneurs in value chains.

2.6 CONCLUSION

Institutional economics, in both the old and new tradition, have much to offer by way of economic approaches to contemporary developmental challenges in South Africa. The old institutional economics especially re-emerges as the critical basis for an economic intuition required in addressing complexity. In this instance, understanding has to take precedence over knowing, and credible processes take precedence over ideal outcomes. Moreover, historical context is acknowledged as a critical facet of institutional analyses. Institutions are most essential to the functioning of economies, markets and organizations, despite its neglect in neoclassical economics. Social capital is established as an important component of institutional economic analysis and particularly relevant in situation where social capital has been eroded by political economic manipulations. Attending to social capital require (*inter alia*) insight into the nature of the societal context, implied path dependency, extent of trust, enforcement mechanisms, and agency relations.

The theoretical basis established in this paper was applied to several economic development challenges such as land reform, building social capital, organizational design, supply chain management, an entrepreneurial development. Whilst the application is not comprehensive, it is considered useful in focusing attention on institutional aspects when studying contemporary economic challenges.

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Two corporate fishing companies have been farming mussels successfully in the bay for about eight years, and the prospects bear good promise. The world consumption of mussels total about 2.5 million tons per annum (1997) of which 65% is considered as inferior quality and the remaining 35% in short supply. Poor and deteriorating water quality, overstocking, and subsequent poor growth rates are problems that plague mussel production globally. The world market is however growing steadily, and local consumption, which lags well behind global levels, is also expected to increase considerably.

Mussel farming involves growing mussels clustered to ropes, which are suspended from floating wooden rafts. Rafts are stocked at about one per hectare. A 50 ha area of was allocated for mussel mariculture by Portnet who administers the Bay. This area has been placed under the custodian ship of a non-governmental organisation active in enterprise development in disadvantaged communities. A pilot project was implemented with the assistance of a corporate fishing company who also farms mussels in the bay. They provided the rafts on a cost recovery basis to new farmers, as well as extension services, guaranteed markets, inputs on account, and other logistical assistance. The pilot project is in the process of being replicated with the establishment of additional growers each year.

The small scale farming project commenced around the 1996 when the author was employed in the non-government sector and engaged in enterprise development. This involved assisting a large corporate named Sea harvest to establish outgrowers from the disadvantaged community. A pilot project was implanted with one farmer and proved to be technically feasible given considerable productivity and efficiency gains realized. Diligence and human capital challenges however brought human failure and coupled with political and cooperative action problems led to a much slower replication of the project over time. The author has remained involved in the continued development of this project ever since. Sea Harvest eventually sold the mussel concern to Blue Blue Aquafarm who continued the initiative of establishing small growers who are selected their labourers.

3.3 THE TRANSACTION COST APPROACH

3.3.1 Theory

The theoretical base for determining the appropriate organisational design for mussel farming is found within the realm of New institutional Economics, and more specifically transaction cost economics. This discourse was given impetus by Ronald Coase, who in his epic studies on the 'Nature of the Firm' began to acknowledge that the price mechanism could not coordinate production alone as there are often costs of using the price mechanism i.e. transaction costs (Coase, 1937, 1998). Coase defines transaction costs as the full costs of conducting exchanges (Coase, 1960).

A next beacon was Oliver Williamson's 'Markets and Hierarchies' (1975), which lead to an elaboration of the transaction cost framework. This was especially useful in studying vertical integration, product diversification, the organisation of work, the multidivisional structure of corporations, and other aspects (Williamson, 1975; Dow, 1986). Eggertson (1990) provides a further exposition of transaction costs by arguing that transaction costs arise when information is costly and induces activities such as information searches, bargaining, making contracts, monitoring, enforcement, and protection of property rights. It is argued that it is essentially high transaction costs which constrain the participation of small farmers in the open market economy (Binswanger and Rosenzweig, 1986; Hoff, *et al*, 1993).

Delgado (1998) advocates for market reforms aimed at eradicating barriers to smallholder participation in the market economy. However, he acknowledges that such measures have often failed to confront 'hidden' reasons for lack of market participation such as information asymmetry, unenforceable contracts, lack of skills and ability to engage effectively, and so forth. This is also the view of Williamson (1985) who states that transaction costs arise under conditions of (a) imperfect knowledge; (b) imperfect rationality i.e. opportunistic, immoral, or illegal behaviour; and (c) imperfect mobility of resources e.g. asset specificity (Bonnen and Schweikhardt, 1999).

3.3.2 A Transaction Cost Framework

Alston and Gillespie (1988) developed a framework to model the effects of transaction costs on relationships between firms (Table 3.1). Their proposed framework classifies transaction costs by crossing three factors of production with the three stages in the production process. The factors appearing under the 'pre-production' and post-production' categories are factors that encourage production within firms. The factors appearing under the 'production' category are costs of using the firm. This framework is later used in categorizing and analysing transaction costs associated with this industry.

Table 3.1: A structure of transaction costs

Factors of Production	Production process		
	Pre-production	**Production**	**Post-production**
Physical and financial capital	Asset specificity	Abuse and agency costs	
Human capital	Information constraints and asset specificity	Coordination costs	Measurement of output and contract enforcement
Work intensity		Shirking and contract enforcement	

Source: Alston and Gillespie, 1988.

A more specified framework which is also based on the transaction costs for smallholder contract farming in Africa was developed by Delgado (1998). In this framework transaction cost factors are identified in production, processing/marketing, and the economic and political environment. In addition, the various farming models are presented i.e. (i) independent small operators, (ii) contract institutions between small operators and processors/marketers, (iii) franchises, and (iv) vertically integrated more specialised large firms. This framework will be adapted and applied to the mussel farming case in the next section (illustrated in Table 3.2). The concept of agricultural franchising is explained in section 4. Table 3.2 compares the transactions costs across four selected models.

The models graduate from independent small growers to a large vertically integrated firm and a franchise as the more sophisticated enterprise form. It is anticipated that the franchise is a form of idealised design in that it enables all risks to be catered for in the franchise agreement. Transaction costs are compared relatively across each model because theoretically it is not the absolute, but rather the relative values that matter. Moreover, the real value of the exercise comes from the identification of transaction costs. This requires much insight and tacit knowledge of the business that can only be generated through intensive observation over long periods and depends much on human judgement.

Table 3.2: A transaction cost framework for small-scale mussel farming

Identified transaction costs and inducing factors that may manifest	Independent small growers	Contract farming	Agricultural franchises	Vertically integrated specialised large firms
Pre-production				
Asset specificity of rafts and equipment	-	+	++	++
Inter firm informational asymmetry	-	-	+	+
Bureaucracy to obtain water tenure	-	-	+	+
High investment requirements	-	-	+	+
Adverse selection of growers	-	-	++	+
Production				
Diseconomies of scale	+	+	+	-
Returns to research and development	-	+	++	++
Entrepreneurial and managerial capacity	-	+	++	+
Moral hazard	-	-	+	++
Shirking behaviour	-	+	+	-
Hold-up from under-performance	-	-	+	++
High value to weight commodity	-	+	+	++
Product losses from lack of coordination with processor	-	+	+	+
Ability to enforce contracts	-	-	+	++
Processing/Marketing				
Economies of scale in marketing	-	+	++	++
Marketing opportunism (prisoners dilemma)	-	+	+	+
Export market penetration	-	-	+	+
High investment cost/risk	-	-	-	+
Informational asymmetry	-	+	++	++
Quality specificity (form utility)	-	+	+	-
Economic and Political Environment				
Land access costs	+	+	+	-
Poorly integrated output markets	-	+	+	++
Stringent financial markets	-	-	-	+
Deficient input/factor markets	-	+	++	++
Economic empowerment imperatives	+	+	+	-
- unfavourable + favoured ++ highly favoured				

3.3.2.1 Pre-production transaction costs

The floating rafts on which the mussels are produced do not have any alternate use and, once constructed, it cannot easily be changed. This implies a high degree of asset specificity[2]. Informational constraints (asymmetry) are also considered to bring pre-production transaction cost because they influence the way in which transactions are forged for the purposes of production. In this case, transaction costs arise due to the cost of information transmission from the corporate entity, which is more knowledgeable about the technology and production techniques, to the new entrants/growers.. In addition it also involves maladaptation costs given that new growers lack the requisite experience and are thus more prone to error. The bureaucratic costs are rather high for individual farmers who wish to acquire a lease over an area of water from the local and Port authorities, as well as all the other project support elements required (e.g. extension, inputs, markets, technology, equipment, etc.). Investment costs are particularly high for individual operators due to the cost of screening, bargaining and monitoring as well as the adverse selection problems that usually accompany credit provision.

Beneficiary/grower selection has been a tedious process over three years. The first grower who commenced the pilot phase exhibited a high level of technical competence and subsequent efficiency, surpassing industry average yields per rope by a significant margin. Unfortunately there was failure in managerial ability and responsible behaviour (moral hazard), causing hold-up problems. The cumbersome public participation and awareness endeavours aimed at eliciting interest and identifying prospective growers, few of whom had any entrepreneurial experience, increased the risk of adverse (beneficiary) selection. The original purpose of attracting entrepreneurial individuals to engage in mussel farming did not yield sufficient interest or ended in opportunistic behaviour and debilitating cooperative action problems.

In conclusion, the transaction costs identified under the pre-production category tend to favour a higher degree of vertical integration or coordination as opposed to small

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[2] Asset specificity is relevant when one party in a transaction makes an investment that cannot be fully recovered if the transaction is terminated (Williamson, 1981).

independent growers or contract farming. Franchises as the more sophisticated form of contracting appear to have somewhat equal merit to specialised vertical integrated firms.

3.3.2.2 Production based transaction costs

At the inception of the project it was expected that small growers would have production efficiency advantages compared to larger enterprises. Experience to date has confirmed this, as the first grower was able to achieve an average rope yield of 64kg per rope, which is significantly higher (42%) than the 45kg per rope achieved on rafts managed by the large corporate. The absolute yields could fluctuate with the nutritional status of the water resource, but the yield efficiency margin between big and small could be retained. This is mainly due to the ability of small growers to more effectively monitor and manage the growth of the mussels on-raft. Besides the incentives to monitor thought attaining better quality product and prices, small growers are also able to exert more individual and family effort at lower cost compared to larger firms. Transaction costs (*inter alia*) therefore increase with a higher degree of vertical integration, thus favouring smaller enterprises. Larger firms are however better at investing in and internalising the costs of research and development, placing them at an advantage over smaller firms. New entrants lack managerial and entrepreneurial ability, which under most circumstances encourages vertical integration. The political challenges of economic empowerment, livelihood creation, and the like do not favour large and vertically integrated firms. Moral hazard and subsequent hold-up problems have occurred with contract farming to date. This is mainly due to the lack of enforceability of contracts between large companies, growers, and other service providers. Large companies bear the risks of shirking[3] by employees, which partly explains the efficiency of smaller enterprises Shirking is an intra-firm 'principle-agent' problem, which can be solved through smallholder contract-farming and franchises.

The marketable yield per rope is about 20 percent of total, indicating low value to weight in primary production. Once sold to the processor the situation changes to high value to weight. This favours vertical linkages and coordination between growers and

[3] Shirking is defined as a deviation from expected behaviour by employees (Alston and Gillespie, 1988) which reduces the productivity of the firm (Yarbrough and Yarbrough, 1988).

processors. The same holds for the high perishability of the product. The lack of contract enforcement again favours more vertical integration. This lack of enforcement stems firstly from the socio-political environment whereby white dominated firms are prompted to contribute to the economic development of previously disenfranchised people and requires gestures of goodwill on their part. Secondly, when contract growers default both formal (law) and informal (peer penalties) mechanisms are ineffective in the short run because of a general lack of business history and precedent. Franchises have the advantage of enabling individual growers (franchisees) with less enforcement risks than the contract growers bur would require higher levels of technical competence.

In conclusion, the transaction cost factors considered under the production category mostly favour more vertical integration, with the important exception of diseconomies of size which favours small-scale farming. Hence, franchising seems to be the favoured model for production.

3.3.2.3 Processing / Marketing based transaction costs

Economies of scale in marketing emanate from the importance of grading and quality assurance. Individual growers attain yields that are too varied with regard to size and quality to be able to penetrate more lucrative local, export, and other niche markets individually. Processing equipment (excluding grading) is also subject to scale efficiencies, and best employed in large and better-endowed enterprises. Some post-harvest activities like cleaning, declumping and grading can be done on raft by the grower, and improves price margins for growers. There is also informational asymmetry on processing techniques, marketing channels, contacts, and processing related services. Marketing of mussels presents a real case of 'prisoner's dilemma' where individual growers are often tempted to sell direct at higher premiums to retailers, restaurants and other buyers. This happens at the expense of an interlinked marketing arrangement with a large processor, whose interest is best served by procuring the best sizes and quality of mussels from growers. In return they also provide other support services e.g. extension, raft construction, seed, some equipment, and goodwill based on *ad hoc* assistance. For this category, franchises and vertically integrated firms are generally preferred, whilst contract growers and franchises are better at maintain quality.

3.3.2.4 Political and economic transaction costs

The high cost of agricultural land acquisition in South Africa necessitates that innovative and alternative livelihood opportunities in agriculture be sought. Small-scale mariculture requiring very little land, is certainly such an opportunity since the cost of access to a water lease is negligible compared to the cost of land. The reality that small-scale farming is largely under-developed in South Africa means that input and output markets are consequently underdeveloped for this sector. However, these markets do exist for large-scale commercial agriculture and mariculture. The challenge is identifying and, if necessary appropriating these markets for small growers. This has not been problematic in mussel farming. Without such integration, access to input and output markets would constitute high transaction costs to small growers. The prevailing political-economic dispensation in South Africa favours the creation and support of small and medium enterprises, which are supported by large corporate entities, as opposed to vertical integration by the corporates. In this context franchises, contract farming, and independent small growers are more acceptable.

In conclusion, it generally appears that higher levels of vertical integration are favoured, but contract farming and especially franchises have compelling merits as well. Three factors militate against specialised vertically integrated firms in favour of franchises and contract farming i.e. diseconomies of size, shirking, and quality specificity. From a transaction cost point of view, franchises appear more advantageous than contract farming on the majority of transaction cost factors. This is evident in practice where contract farming failed to adequately address all the transaction costs. This is manifested in the limited replicability of the existing contract farming model. It must be admitted that other factors like the inaccessibility of the allocated site also contributed to the delays. However, it is considered easier to incorporate measures into the design of the franchise to cater for transaction costs, than in the case of contract farming. Franchisees are more reactive to risk, better at dealing with contract enforcement, export market penetration, high investment costs, informational asymmetry, and deficient input factors. Franchises are also less prone to hold-up problems, moral hazard, adverse selection, and bureaucracy. At this juncture, it is necessary to elaborate on the definition and nature of franchising.

3.4 AGRICULTURAL FRANCHISING

Business format franchising, as opposed to product or brand franchising, is defined as a contractual relationship between two or more businesses, where the following exists (adapted from Rudolph, 1999):

(i) A franchisor, providing inputs/services to franchisees.

(ii) In return, franchisees pay the franchisor an initial sum as well as royalties that are tied to sales or profits.

(iii) For at least one of the services provided by the franchisor, which covers an essential administrative or managerial function, the following set of conditions must hold simultaneously: (a) the service is subject to economies of size, (b) although there need not be rivalry in consuming the service, other firms in the industry who have not bought the franchise can be excluded from consuming it, (c) the provision of this service gives the franchisees a competitive advantage, and (d) the productivity of this service for the franchisee requires a long term contractual relationship.

(iv) Although the franchisee is not employed by the franchisor, and has some discretion in decision-making, the franchisor has the right to monitor those actions of the franchisee that might cause negative external effects for other franchisees with respect to the condition above.

(v) The franchisees do not share in the ownership of the franchisor firm.

(vi) Limit growth potential for individual franchisees.

(vii) A high degree of asset specificity of the production technology.

(viii) A more or less vertical integrated structure must be less efficient.

The transaction cost factors favouring the selection of franchising as the farm model has been presented earlier. Here, the above conditions outlined for franchising can be tested on small-scale mussel mariculture. The franchisor could be an existing large corporate entity, with which the existing farmers have contracts, or a joint venture between relevant organisations. The appropriate option is the one that involves the corporate fishing company since they provide essential inputs and services to the growers. Prospective franchisees could be expected to pay a joining fee, which entitles them to the range of requisite services. Some flexibility and creativeness is required given that emerging growers have limited resources. Royalties may also be recovered from sales on a feasible basis. Growers would enter into this arrangement because it brings economies of scale in marketing, processing, research and development, input procurement, and improves their competitiveness through access to expertise/extension services, more price certainty, synchronised harvesting, and certainty on factor markets. The conditions on asset specificity and limited growth potential are also satisfied because only standard size mussel rafts are conventionally used, with hardly any alternative uses. Earlier it was also shown that a greater extent of vertical integration brings higher transaction costs.

3.5 CONCLUSIONS

The New Institutional Economics and particularly transaction cost economics is useful in modelling the effective participation of small farms in agribusiness and was applied in this paper. The development of efficiency based small-scale farming in South Africa involves, *inter alia,* forging linkages between large corporates and small-scale farmers. This relationship has to be based on improved efficiency and complementarity in the farming activity. Mussel farming has proven more productive on a small scale as opposed to large vertically integrated firms who suffer from diseconomies of scale. Both independent small-scale farming and large vertically integrated firms *per se* are, however, less efficient models due to higher transaction costs, compared to contract farming and franchises. This was determined by considering the transaction costs involved in the four farming models.

Franchises would be more efficient than contract farming because they are better at dealing with contract enforcement, export market penetration, high investment costs, informational asymmetry, and deficient input factors. Franchises are also less prone to hold-up problems, moral hazard, adverse selection, and bureaucracy.

Mussel mariculture can satisfy the conditions required for franchises to operate successfully. A suitable franchisor could be, or include in a joint venture arrangement, the corporate entity which currently enters into contracts with mussel growers to effectively address the transactional constraints. The detail organisational design of the franchise model is an immediate challenge and the transaction cost factors identified in this paper would be useful in guiding this exercise.

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CHAPTER 4

APPRAISING THE PROSPECTS OF CONTRACT FARMING IN OYSTER PRODUCTION IN SOUTH AFRICA

4.1 INTRODUCTION

Entrepreneurial development and economic empowerment in agriculture should capitalise on lucrative development opportunities in growing commodity sectors. The oyster industry presents this opportunity because, though still developing, it has the advantage of favourable market conditions and undeveloped available natural resources, well suited to oyster farming. In this paper, the possibilities of contract farming in the oyster industry are discussed by examining experiences with contract farming and the market imperfections associated with contract farming. From this, the appropriate contractual arrangements can be derived.

The application in this paper to the oyster industry comes from the prior involvement of the author in the aquaculture sector and the mussel industry discussed in the previous chapter. This involvement entailed assessing the potential for empowering disadvantaged communities in the oyster industry on behalf of a government agency. This commenced with discussions and observations with the management of the largest oyster company in South Africa at the time called Knysna Oyster Company. This work later progressed when at the request of government the authors had to assess another oyster company named Diamond Coast Oysters with regard to economic empowerment. Whilst the insights gained from the oyster industry generally informed the study the focus in this paper is on Diamond Coast Oysters. This a venture started by a diamond mining concern in an attempt to diversify the economy of the diamond mining areas to ensure sustainable livelihoods once the diamond resources decline or become exhausted. This situation is envisaged, and it thus became necessary to consider extensions of the oyster venture as a sustainable business. The oyster business has however been subsidised by the diamond operation and run by salaried management and workers with little entrepreneurial incentives. As a result the business has not reached viability but has every potential to achieve this based on the positive experiences of other oyster firms. A key proposition is that contract farming could further bring the required production efficiencies. Neither contract farming nor small scale growing existed at the time and this study is aimed at appraising its prospects in an *ex ante* fashion.

The business currently operates as a single vertically integrated firm which is not considered the optimal organisational form for oysters given experiences in other countries and firms. Spot market transactions are also not favoured, and the challenge so falls on identifying an appropriate organisational form. Contract farming is considered a suitable institution, but suffers from various market imperfections which require certain contractual provisions. The provisions are derived from various experiences with contract farming in developing countries and from examining the imperfections in oyster contract farming, as proposed.

Oyster contract farming is appraised using transaction costs analysis of various market imperfections similar to approaches followed by Key and Rungsten (1999), Delgado (1999), Karaan (1999), Kähkönen and Leathers (1999), and Minot (1986). First, the theoretical basis for an analysis of institutions is established. This is followed by a brief literature review of experiences with contract farming in developing countries. This involves the identification of critical success factors pertaining to contract farming and the associated inhibiting and enabling factors, which is later useful in designing an appropriate contractual arrangement. A concise overview of the oyster industry is then presented. Finally, specific imperfections and transactions costs are identified to derive an appropriate contractual arrangement.

4.2 THE THEORETICAL BASIS FOR CONTRACT FARMING

Vertical coordination and contracts are well acknowledged as one feature of a post-industrial agriculture (Bonnen and Schweikhardt, 1999, Barry, *et al,* 1995, Boehlje, 1996). Contract farming is a hybrid measure of vertical coordination in the continuum between spot markets and fully vertical integrated firms (Peterson and Wysocki, 1998, Mahoney, 1992, Minot, 1986, Williamson, 1975). Sporleder (1992) identifies five hybrid forms of organisation including: (1) cooperative bargaining, (2) contracting, (3) franchising, (4) joint venture arrangements, and (5) strategic alliances. Three contract types are distinguished, including: (i) resource-providing contracts, (ii) market-specification contracts, and (iii) production-management contracts (Minot, 1986, Key and Rungsten, 1999).

Contract farming can be analysed from a New Institutional Economics perspective which views the formation of institutions as a response to missing markets in an environment of pervasive risk, incomplete markets, and informational asymmetry (Bardhan, 1989). The basis for discerning whether transactions are organised within firms through vertical integration or between firms, derives from the 'Coase theorem' (Coase, 1937), and the extensive subsequent work of Williamson (1975, 1986, 1991). Accordingly, firms will choose to organise transactions based on the nature of institutions and the transaction costs firms face with the respective options. The approach involves a consideration of transaction costs and organisation form in an iterative manner to determine a suitable institutional framework that minimises transaction costs.

Firms will choose to contract in services if they perceive that this strategy reduces transaction costs. Transactions costs have been described as the costs of running an economic system; friction in the economic system; information imperfections, moving from ignorance to omniscience, reducing uncertainty, carrying out exchange (Coase 1960, Kähkönen and Leathers, 1999, Williamson, 1975). It is important to distinguish between production costs and transaction costs though, as Milgrom and Roberts (1992) conceded a conceptual separation is troublesome because information imperfections pervade across these categories. Production costs generally depend on technology and inputs used, and transactions costs depend on the way transactions are organised. To this, Jaffee and Morton (1994) added 'transfer costs' which are the costs of marketing services performed in physical handling: transport, storage, wholesaling, retailing, losses.

Transaction costs in marketing and processing in developing countries typically arise because market prices do not fully reflect the true costs and returns to participation to all actors who often are unequally endowed and for whom market solutions may not be available (Delgado 1999). Transaction costs in production result very often from asymmetries in assets and production as well as exchange patterns. Several studies have concluded that high transactions costs in either production and marketing of potentially remunerative commodities exclude poorer farmers from participating in lucrative enterprises (Binswanger and Rozensweig, 1986, Jaffee and Morton, 1999, Delgado, 1999, Karaan, 2000, Key and Rungsten, 1999, Kähkönen and Leathers, 1999).

Contract farming can be explained as an institutional response to imperfections in markets for *inter alia* credit, insurance, information, factors of production, and raw materials. It combines some of the advantages of the plantation system with those of smallholder production (Glover, 1987). Jaffee and Morton (1999) provide the following categorisation of transactions costs:

(a) *Search costs*: costs associated with identifying potential buyers and sellers.

(b) *Screening costs*: costs associated with gathering information about the reliability of a buyer/seller and the quality of goods being transacted.

(c) *Bargaining costs*: costs of gathering information on prices in other transactions, on factors that may influence the willingness to buy by the other party to the transaction, on implications of contract terms, etc.

(d) *Monitoring costs*: costs associated with monitoring contract performance.

(e) *Enforcement costs*: incurred in ensuring contract provisions are met, including the costs of default provisions.

(f) *Transfer costs*: transport, storage, processing, retailing, wholesaling, and losses.

4.3 EXPERIENCES WITH CONTRACT FARMING

Experiences with contract farming are recorded and examined in several studies in different countries including seven East- and Southern African countries (Minot, 1986, Williams and Karen 1985, Key and Rungsten, 1999, Glover 1990, Glover 1987, Glover and Kusterer, 1990, Porter and Philips-Howard, 1997. Maloa and Nkosi, 1993). These studies provide important insights into the operations of contract farming and are summarised below (Table 4.1). First the critical factors are identified as they are manifested in these studies. Then, the inhibiting and enabling conditions associated with each are extracted.

Table 4.1: Summarised insights into the operations of contract farming

Critical factors	Inhibitors	Enablers
Technological determinism	Crop with long gestation periods bring debt problems and exit barriers High levels of asset specificity Rapidly changing technology	High value crops Intensive *in loco* supervision crops Skilled labour requirements Smallholder efficiency gains
Pricing and payments	Regulated prices for fair returns Bureaucratic delays Livelihood dependency Growers not clear over deductions Incentives/penalties on uncontrollable factors/events High price volatility Demand shifts cause price variations Prices consistently below spot market prices	Lucrative market conditions Tax incentives Formulae pricing linked to reasonable market fluctuations Prices should provide clear signals and incentives Alternative or non-farm income Supply shifts cause price variations Prices and payments reduce income variability
Property rights	Uncertain tenure arrangements Power abuse Little safeguarding of investments Lack of contract enforcement	Feasible under stable common property regimes Crop suitable as collateral Ready access to alternative land
Management	High informational asymmetry	Effective farmer participation Good communication Human capital Institution-based trust
Services	High cost of extension Contract risk (opportunism)	Specialised extension linked to risk Timely input supply and procurement
Organisational and power relations	Ambiguous goal Heterogeneity of growers High vulnerability of growers leading to resentment and reduces risk taking Development objectives supersede profitability criteria Disrupting local power relations	Strong growers association Principal commands moral authority Conflict resolution mechanisms
Entry and exit conditions	Lack of producer bargain power Land scarcity High training costs High asset specificity	Small scale technology Smallholder efficiency gains Human capital Externalised R&D costs
Finance	Inability to take-over operations under non-performance by grower Moral hazard Adverse selection of growers High asset specificity of financed asset or collateral	Principal provide initial capital and cash flow Principal bears initial financial risk Principal prepared to make 'patient' investments Principal has good standing with financier/s
Marketing	High spot market prices causing prisoners dilemma Principal favouritism towards some growers Opportunism ad moral hazards e.g. bribes Growers treated as reserve suppliers	Synchronised deliveries Grower exposed to unfavourable market conditions Safety nets
Livelihoods	Deferred gains High dependency Excessive fluctuations Promoted as a rural development strategy	Multiplier effects Prefer larger growers or growth potential Access to family labour

4.4 BRIEF BACKGROUND TO THE OYSTER INDUSTRY AND DIAMOND COAST OYSTERS

South African oyster companies produce approximately 5 million oysters per annum, which produced by the four existing producers. This investigation is centred on the Diamond Coast Oyster Company (DCOC) which produces about 10% of this total local production ($\pm$ 500 000 oysters p.a.). Diamond Coast Oysters is located on the north-western coast of the Northern Cape Province, a traditional diamond mining area. The area is well endowed with natural marine resources suitable for mariculture practices. The favourable market potential of oysters warrants the expansion of this operation.

DCOC produces oysters on rafts buoyed by plastic drums in an earthen pond of about 3.5-4ha in size. Spat were previously bought at around 12mm and grown to marketable size but lately DCOC began to import spat from Chile at 25mm to lower the mortality rate. Water destined for the diamond factory is channelled through the pond which saves significantly on pumping costs. This gives DCOC a comparative cost advantage over other producers but this will have to be contended with once the diamond operations cease (Karaan and Wiggins, 2000).

Oyster farming is normally divided into three phases as follows:

(1) Hatchery Phase: This involves a spawning and hatching process whereby spat is produced for sale as little as 2mm in size. However spat is mostly sold at 12 mm to oyster growers. South Africa does not have any successful hatcheries; consequently all spat are imported from countries like France and Chili.

(2) Nursery phase: Growing from 12 mm to 25 mm. Other companies bring spat into their nursery at an even smaller size (2mm) because this is much cheaper and mortalities are then less costly.

(3) Grow-out to harvest phase: Entails the placing of oysters (>25mm) in plastic crates stacked on iron rafts which are again suspended into the water. Thereafter the oysters are size graded at 6 months and replaced into the dam using the same technology. Market size is reached around 18 months.

The present technology is fairly obsolete for the industry as other producers have moved away from this system to growing bags on raft systems or long line systems. All producers are vertically integrated between the nursery and grow-out phases. One producer is however attempting to outsource the nursery phase to his workers in an attempt to encourage entrepreneurship and productivity (Karaan and Wiggins 2000).

The DCOC operation employs a manager and about 6 permanent workers with an equal gender balance. There is however a gender division of labour where males perform mainly the stocking and harvesting functions and women the land based sorting, grading, cleaning, and packing tasks. Labourers are all from the diamond mining labour pool diverted to the oyster farm. Very few of the existing workforce has further entrepreneurial aspirations in this venture. The menial nature of oyster farming, pertaining to labour, implies that skills levels among the existing workers are not adequate as yet for an effective empowerment venture. Considerable effort has to go into capacity building and ongoing training on technical, financial, legal and economic matters. Labour costs constitute 40% of total operating expenses which is considerably higher than the industry average of 30-35%.

A SWOT analysis of DCOC revealed the following (Table 4.2):

Table 4.2: SWOT analysis of the Diamond Coast Oyster Company

Strengths	Weaknesses
1. A going concern 2. Easily manageable 3. Good water quality 4. Pumping cost externalised 5. Good security 6. Good market conditions 7. DCOC management goodwill for privatisation 8. Committed financial contribution from DCOC	1. Project running at a loss 2. Poor product quality 3. Inadequate husbandry 4. Single undrainable pond with limited water circulation 5. Pump not controlled by oyster manager 6. Remoteness 7. High seed costs vs low market price 8. Low worker skills and motivation 9. Little record keeping 10. Restricted access 11. Little customer contact 12. Minimal supply chain management
Opportunities	**Threats**
1. Can improve management strategy 2. Expansion potential 3. Introducing other species 4. Establishing outgrowers	1. Factoring in pumping costs 2. Diseases and parasites 3. Increased market competition 4. Diamond security impedance of management

Source: Adapted from Karaan and Wiggins (2000).

DCOC has not been operating as a viable financial venture due mainly to poor management, inadequate husbandry practices, sustained subsidisation by the mining company, low productivity, cross-accounting with the mining operations, and a general lack of performance incentives. The prospects for remedying the situation are anticipated in privatisation of the enterprise, improving property rights, and smallholder development. This investigation is aimed at promoting this objective.

4.5 MARKET IMPERFECTIONS AND IMPLIED CONTRACTUAL ARRANGEMENTS

Market imperfections encourage vertical coordination and subsequent establishment of contractual arrangements. The imperfections in financial markets, production technology, input markets, property rights, commodity markets, labour markets and power relations are identified below, and the implied contractual arrangements derived.

The analysis points to the necessity for a combined resource-providing and market-specification contract. It seems further necessary to also structure a production-management contract for at least two years, which can be phased out as growers gain the envisaged production efficiencies from intensive *in loco* supervision. Firm size and grower remuneration must be commensurate with household labour availability to capitalise on this potential benefit. Third party involvement and intermediation is a prerequisite given the power relations and the critical importance of participatory planning.

In the table below each market imperfection, risk and transaction cost is identified from field observation. The real value of the analysis lies in the identification of these factors as they require considerable time and insight to be derived. Each composite set of factors were clustered thematically and the implications for contract design elicited. These imperfections occur in financial markets, production technology, input markets, property rights, commodity markets, labour markets and power relations. To address these, a large firm should offer a resource-providing contract and a market-specification contract, as well as a production management contract in the initial stages. Financial and extension services should also be inter-linked with such contracts.

Market imperfections and transactions costs	Implied contractual arrangement
Imperfect financial markets resulting in: (a) High cost of credit to small farmers (b) Growers lack collateral (c) High production asset specificity (d) High shadow value of liquidity (e) Lack of financial intermediaries (f) High search screening, bargaining and monitoring costs with individual applicants (adverse selection and moral hazard) (g) Exogenous risk	DCOC acts as financial intermediary, providing collateral through operation buy-back or take-over options, collaborating with a growers association and the financier. Insurance against non-performance.
Informational asymmetry around production information technology, timing, quality: (a) Public subsidised extension unavailable (b) Access costs to new appropriate technology (c) Bargaining, monitoring and enforcement costs of synchronised supply (d) High labour supervision costs (e) Shirking behaviour before realised returns	Commence with a production management contract. DCOC exerts strong management responsibility initially to ensure adequate start-up (2 years). Contracts should be issued for nursery growers as this phase presents less production risk. Later the role of DCOC declines into an extension role once small grower efficiencies are realised.
Imperfect markets for specialised inputs: (a) High transfer costs of input procurement (b) economies of scale	Resource providing contract.
Imperfections in property rights: (a) Insecure tenure arrangements (b) Contract enforcement costs (c) Insufficient collateral	Access provisions as far as legally possible. DCOC provides securities through a buy-back or take-over clause in case of grower default.
Marketing transactions costs: (a) High transfer costs for individual growers (b) Prisoners dilemmas with spot market prices (c) High price volatility costs to growers (d) Adverse product selection (e) Market/product informational asymmetry (f) Hold-up costs (g) Economies of scale	Market specification contract specifying a single market (DCOC), based on a formula price and delivery times. This is backed with an extension service.
Imperfections in labour markets: (a) Low skilled labour (b) Limited markets for family labour (c) Disproportionate labour cost (d) Low opportunity cost of labour (e) Lack of entrepreneurial organisation (f) Risk aversion	Firm size to be commensurate with household labour availability and reasonable compensation requirements, allowing for performance based growth.
Insufficient countervailing power: (a) Asset specificity bring lock-in effects (b) Search screen and bargaining costs in beneficiary selection and capacity building (c) Large firm monopoly (d) High contract enforcement costs (political)	Third party role in facilitating a grower's organisation, and intermediation. Participatory planning.

4.6 CONCLUSIONS

Contract farming is a hybrid form of vertical coordination in the continuum between spot markets and fully vertical integrated firms. It is also an institutional response to missing markets in an environment of pervasive risk, incomplete markets, and informational asymmetry. Firms will therefore choose to organise transactions based on the nature of the institution and the implied transaction costs. The approach involved a consideration of transaction costs implied in contract farming to determine a contracting arrangement which minimises transactions costs and facilitates contract farming.

Experiences with contract farming under developing country circumstances have shown the significance of technological determinism, and appropriate pricing, payments, services, management, organisational design, power relations, entry and exit conditions, finance, marketing arrangements and livelihood implications. Various enabling and inhibiting factors related to each of the aspects have to taken into account in designing contract farming arrangements.

The natural tendency for oyster producers would remain to be vertically integrated as far as possible because the industry is still small and growing, which may not be the most opportune time for introducing options that bring greater contract risk. Nevertheless, contract farming holds promise for the industry through the potential efficiency gains it could bring. The industry is faced with a unique opportunity for establishing contract nursery growers.

DCOC has to deal with the challenges of improving its' viability which is mainly a function of management. The company is excellently endowed with natural resources (water and ponds) and enjoys several benefits from the diamond operations which position it well for further development under an improved management regime. Above all, the industry is in a growth phase with favourable and stable market conditions.

Oyster contract farming however faces several market imperfections and transactions costs as opposed to large vertically integrated firms. These imperfections occur in financial markets, production technology, input markets, property rights, commodity markets, labour markets and power relations. To address these, a large firm should offer a resource-providing contract and a market-specification contract, as well as a production management contract in the initial stages. Financial and extension services should also be inter-linked with such contracts.

Firm size and grower remuneration must be commensurate with household labour availability to capitalise on this potential benefit. Third party involvement and intermediation is a prerequisite given the power relations and the critical importance of participatory planning.

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CHAPTER 5

A NEW INSTITUTIONAL ECONOMIC ANALYSIS OF LARGE FRESH PRODUCE MARKETS: IMPLICATIONS FOR THE FORMAL AND INFORMAL SECTORS UNDER CHANGING MARKET CONDITIONS

5.1 INTRODUCTION

Agricultural fresh produce in South Africa has largely been transacted via large national fresh produce markets located in each of the 16 large urban metropoles around the country. The Cape Town fresh produce market is the second largest and is also the subject of this paper. The fresh produce markets all operate as commission sales markets operated by registered market agents. The Cape Town market accommodates about seven agents who share the entire turnover of over R600 million (rand) per annum. The market is the property of the local authority (Cape Metropolitan Council) and managed by a market manager. The market is governed by a formalised sales system, an insurance system, a national training system, a security system, a supply system and an informal pricing system. Various Acts, laws, bylaws and regulations exist to support these mechanisms. The legislation was enacted national and local government to facilitate marketing of fresh produce by market agents who would intermediate between farmers and urban traders. This occurred at a time when the government was introducing various mechanisms and laws to develop and support white commercial farming, marginalise black people in the economy and generally entrench the domination of white people in the economy. Such mechanisms pervaded throughout the country and all sectors of the economy. Despite the advent of democracy in South Africa, the previous mechanisms became institutionalised and embedded in the social and business environment. These remnants of the past hence, remain active to some extent and can be observed even in the fresh produce markets, though in a diluted or obscured form. Such remnant may deter achieving racial equity imperatives of fresh produce markets.

Large fresh produce markets have in the past occupied a dominant position in the fresh produce supply chain in South Africa, but this position has changed in recent years. Modern day marketing of perishables is characterised by a need for greater supply coordination and vertical integration. This is a global trend. Subsequently, there has been increased circumvention of markets and opportunistic behaviour on markets. This occurrence is corroborated by experiences in countries such as Brazil and Australia (Farina, *et al*, 1999). The key proposition in this paper is that markets as governance institutions have to adapt (i.e. institutionally evolve) to changes in embeddedness, the institutional environment, and institutions of governance to improve economic performance.

The study is based on the author's experience in conducting several studies around the feasibility of fresh produce markets and the empowerment of informal traders. These studies involved designing and determining the viability of new markets. This work resulted in the drafting of business plans and ultimately the establishment of markets in Umtata, Gaberone and Cape Town. This work was later followed by a commissioned study into assessing the lack of participation and graduation of black traders as market agents. The study involved several visits to markets, interviews with key stakeholders (traders, management, associations, etc.) and unobtrusive observation of activities of on the markets over intermittently over several months. Valuable insights were derived from discussions with stakeholders in the course of conducting the abovementioned investigations often at the behest of black traders frustrated by the impediments they face in participating in the markets. Particularly valuable were the insights gained from lengthy historical accounts of older traders who had devoted careers and family histories to deriving livelihoods and economic gain from the markets. A history of black exclusion and white preference was not only a political reality, but became engrained in the institutional character and governance of the markets. It was clear from the onset that advancing black participation in the markets would require a thorough understanding of this history and must be addressed and untangled (where possible) to promote black more equitable participation.

The paper takes the form of an institutional economic analysis of fresh produce markets based on concepts in transaction cost economics. These costs are often difficult to quantify but this difficulty is mitigated by the fact that transaction costs are always assessed in a comparative institutional way, in which modes of contracting are compared. Accordingly, it is the difference between rather than the absolute magnitude of transactions costs that matters (Williamson, 1985). The approach is conceptual but useful as it facilitates decision making on various institutional development options. Deliberating over such options is considered the key challenge to market management.

The first section establishes a conceptual new institutional economic framework that is considered useful in analysing fresh produce markets. This framework is applied in the following section by appraising the performance of markets. The key findings are concluded in the next section, where after recommendations towards enhanced governance and economic performance are made.

5.2 A NEW INSTITUTIONAL ECONOMIC CONCEPTUAL FRAMEWORK

5.2.1 Neoclassical Limitations

Researching agricultural marketing has traditionally followed a descriptive approach (Loader, 1997) based on the neoclassical paradigm. Economists have since acknowledged the limitations of this approach, which is generally premised on a single homogenous-product firm, operating in a perfectly competitive market, with a large number of competitor firms producing the same product under the same conditions and facing the same demand curve. Economic agents are assumed to possess perfect information and to face no uncertainty. Neoclassical economic analysis focuses on equilibrium market outcomes. The neoclassical shortcomings however, stem from its limited ability to explain the existence of firms, the nature of organisations, inter-firm relations, transactions, contracts, hierarchies, power relations, and so forth.

5.2.2 Nature of the Firm

Coase started to shed light on this void in commencing a discourse on the 'Nature of the Firm' (Coase, 1937), which essentially recognised that there are costs to using the market mechanism (price system). Douma and Schreuder (1992) explain this Coasian position as accepting that coordination of the economic system can occur via markets or organisations. Hence markets may be avoided by coordinating economic activity within firms. This essentially is the new institutional motivation for why firms exist.

The costs of using the market mechanism are transaction costs, which occurs when a good or service is transferred across a technologically separable interface.

5.2.3 Transaction Costs

Transaction costs specifically refer to the costs of (i) price discovery, (ii) negotiating contracts for each transaction, and (iii) specifying the details of a transaction (Hobbs, 1996). Williamson (1975) refers similarly to *ex ante* and *ex post* transaction costs. *Ex ante* transaction costs refer to the costs of preparing contracts, executing contracts, and monitoring agent behaviour before contracting. *Ex post* transaction costs include: (i) the maladaptation costs incurred when transactions drift out of alignment, (ii) the haggling costs incurred to correct ex post misalignments, (iii) dispute settlement costs, and (iv) bonding costs to effect secure commitments (Eggertson, 1990, Williamson, 1985).

Williamson (1996) further elaborates on the differences between transaction cost economics and orthodoxy. He states six critical differences:(1) behavioural assumptions (bounded rationality and opportunism), (2) transaction as the unit of analysis, (3) the description of the firm as a governance structure, (4) the insistence that property rights and contracts are problematic, (5) the reliance on discrete structural analysis (different organisational structures), and (6) the 'remediableness' criterion (i.e. flawed alternatives). These principles are implicitly applied later in this analysis.

The transaction costs approach proposed by Coase (1937, p395) implies that a firm will carry out economic activities internally for as long as it is able execute this at a lower cost than the open market. To achieve this, firms may vertically integrate or vertically coordinate i.e. find alignment (Frank and Henderson, 1992, Hobbs, 1996, Williamson, 1975, Mahoney, 1992, Douma and Schreuder, 1992). The key implication here is that firms will vertically integrate or align transactions to economise on transaction costs, which often means bypassing existing but less efficient markets. Transaction costs thus determine whether transactions are organised within a firm (hierarchy) or between autonomous firms (markets).

Transaction costs analysis embodies four key concepts. First, bounded rationality, which refers to behaviour that is 'intendedly rational but only limitedly so' (Simon, 1961 in Williamson, 1996). This stems from the fact that humans have limited ability to anticipate all potential outcomes of economic decisions, especially under conditions of complexity and uncertainty. Hence, all complex contracts are unavoidably incomplete. Second, opportunism, defined by Williamson as 'self-interest seeking with guile'. This acknowledges the perpetual risk of individuals seeking to exploit a situation to their own advantage. Third, asset specificity refers to a situation where an asset cannot be redeployed to an alternative use without a significant reduction in the value of the asset (Douma and Schreuder, 1991). Fourth, informational asymmetries, whereby it is acknowledged that business exchanges are characterised by incomplete, imperfect or asymmetrical information.

Informational asymmetry arises when there is public information available to all parties but also private information available to selected parties, which induces asymmetry. This leads to *ex ante* and *ex post* opportunism. *Ex ante* opportunism involves concealing information prior to a transaction with negative effects to the other party i.e. adverse selection, or the so-called 'market for lemons' as defined by Akerlof in 1970. *Ex post* opportunism involves the moral hazards brought by individuals who opportunistically increase personal welfare because their actions are not directly observable e.g. negligence after insurance (Hobbs, 1996).

Transaction costs depend on three critical dimensions of transactions: (1) asset specificity (see explanation above), (2) uncertainty/complexity (bounded rationality), and (3) frequency (Douma and Schreuder, 1991). A more detailed application of transaction costs analysis based on the above three aspects was conducted by Loader (1997), and will only be partially expounded in this paper.

5.2.4 Firms as Governance Structures

An often-neglected part of economics is the understanding of firms as governance structures. In this respect, Williamson (1985) advances the following: (i) forms of formal organisation matters, (ii) informal organisation has instrumental purposes, (iii) opportunism is a subtle and pervasive condition of human nature, (iv) bounds on rationality are acknowledged, (v) adaptive sequential decision making is vital to organisational effectiveness, (vi) the transaction is the basic unit of analysis, (vii) tacit knowledge is important. These propositions form an essential part of the conceptual framework used to appraise the performance of markets and firms.

Williamson (1985) discusses the significance of governance costs under alternative governance structures, and states that if economies of scale and scope are held constant then choice between firm and market turns entirely to governance costs. He further discusses this in a later paper (Williamson, 1991) by including in his discussion of governance costs the offsetting of bureaucratic costs against adaptive gains from hierarchical governance.

5.2.5 Property Rights

Markets, like firms, can be seen as physical assets and require consideration of property rights. The transaction cost approach acknowledges that ownership matters, where rights of asset ownership take three forms: the right to use, to appropriate returns, and to change the substance/form of an asset. Williamson (1985) explains that the property rights approach would *inter alia* inquire whether mistaken property rights assignments are responsible for resource misallocations. Contracting now becomes important as the means by which control is allocated.

5.2.6 Contracts

Contracts are the means of transacting and warrant some attention. Contracts can take one of four forms: (i) planning (ii) promise (iii) competition (iv) governance. Three behavioural assumptions are used to determine the form of contracting i.e. bounded rationality, opportunism, and asset specificity. This decision framework appears below. A + means the specified factor is present and a 0 means the specified factor is absent.

Behavioural assumptions			Implied contracting process
Bounded rationality	**Opportunism**	**Asset specificity**	
0	+	+	Planning
+	0	+	Promise
+	+	0	Competition
+	+	+	Governance

Source: Williamson, 1985.

5.2.7 Asset Specificity

Technology is a key determinant of asset specificity and economic organisation. This is especially true when (i) there is a single technology that is decisively superior to all other and (ii) that technology requires a unique organisational form. Asset specificity arises when transactions have to be supported by investments in durable, transaction specific assets, which bring lock-in effects and has relation to sunk costs. Often such investments cannot be redeemed when transaction costs are terminated. Williamson makes six distinctions of asset specificity: (1) site specificity, (2) physical asset specificity, (3) human asset specificity, (4) dedicated assets, (5) brand name capital, and (6) temporal specificity. The key implication here is that asset specificity elicits complex *ex ante* incentive responses and more importantly induces *ex post* governance structure responses. For example higher levels of asset specificity encourage greater control to ensure that there is a return on highly dedicated investments. Fresh produce markets as designed and dedicated infrastructure are subject to this condition.

5.2.8 Institutional Analysis Framework

In examining the economics of institutions, Williamson distinguishes four levels of social analysis, illustrated below.

THE ECONOMICS OF INSTITUTIONS			
	Level	**Purpose**	**Theory**
Level 1	**Embeddedness**: (Informal institutions, traditions, norms, religion, culture, socio-political imperatives, etc.)	Protection, preservation, power	Social theory
Level 2	**Institutional environment**: Formal rules of game: (property rights, laws, constitutions, etc.)	First order economising: Get the institutional environment right	Economics of property rights Positive political theory
Level 3	**Governance**: Play of the game: (aligning governance structures with transactions)	Second order economising: Get the governance structure right	Transaction cost economics
Level 4	**Neoclassical analysis**: Performance: (optimality, prices, quantities, incentives, etc.)	Third order economising: Get the marginal conditions right	Neoclassical economics Agency theory

Source: Adapted from Williamson, 1999.

Level 1 does not strictly fall in the realm of economics but rather that of social theory. However, its profound impact on the economic functioning of institutions necessitates that it be considered. Levels 2 and 3 have traditionally been the concern of New Institutional Economics, aimed at the institutional environment and subsequent governance structures. Level 4 is more germane to the Neoclassical economics aimed at the marginal conditions.

5.3 NEW INSTITUTIONAL ECONOMIC APPRAISAL

The conceptual framework depicted in section 5.2.8 is applied in conducting an institutional economic appraisal of fresh produce markets, below.

5.3.1 Embeddedness

At the embeddedness level it is clear that the markets were created to assist white commercial farmers with markets access and control of the supply chain. This had racial and political underpinnings which became covert and pressurised with a new political dispensation. Presently, the markets have to question whose purpose it serves since the old constituency have become politically marginalised and economic empowerment and political redress now dominate. The change however brought pragmatism, distrust and chaos that emanate from uncertainty.

Factors supporting the original system	Factors inducing changes to the system	Results
Afrikaner empowerment and affirmative action Nationalism and white supremacy White farmer favouratism/protection Insularity Racism Religion	**Political transition to democracy and redress** Non-racialism Economic and political marginalisation of producers Oligopolistic supply chain (intermediary power	**Economic and political power shifts** Pragmatism towards black empowerment Confrontation and distrust Increased 'chaos' Discrete racial prejudice Trade segmentation largely along cultural lines

5.3.2 Institutional Environment

The legislation that entrenched the market system are largely still in place and the institutions thus prevail. Other factors have become critical in inducing change such as changes in the consumer base, market circumvention, viability of market infrastructure, changing municipal priorities, etc. Hence, the acknowledged need to revisit the agency/commission market system, the need to cater for parallel markets and the formation of public private partnerships.

Factors supporting the original system	**Factors inducing changes to the system**	**Results**
Legislation and municipal bylaws for an agency based system Property rights remain with local government allocated to market management Stakeholder based market management dominated by agent and farmer interests	Changing composition of consumer segments Rise in the political and economic power of the informal sector Greater stakeholder participation in local government and market management. Move towards private public partnerships Asset specificity of market infrastructure Black empowerment Increased upstream market circumvention Agent-wholesaler convergence	Reconsideration of the agency system A search for empowerment mechanisms (little achieved) Emergence of sub-agents Greater vertical coordination by intermediaries Challenged hierarchy under high asset specificity (anomalous) Prospects of privatisation to facilitate private ordering and efficiency Formal-informal parallel markets

5.3.3 Institutions of Governance

Markets were governed by sales systems, insurance schemes, and rental arrangements. Various manifestations of opportunism, loss of location utility, and equity considerations necessitated changes. Changes should be aimed at improving equity and reducing opportunism.

Factors supporting the original system	**Factors inducing changes to the system**	**Results**
All sales conducted by market agents only Insurance schemes to protect farmer pay-off Private treaty sales instead of auction sales Commission sales to compensate agents and markets Control and recording of purchases Integration of complimentary services Floor space rentals per traded volume Inter-market price speculation Tacit knowledge with white traders and salesmen	High participation cost to small traders (time) Substantial (unrecorded) peripheral trade Moral hazard and prisoners dilemma problems of market agents (sub-goal pursuit) Entrenched locational utility albeit limited space for expansions Workplace equity	Increase private ordering between all parties Credible commitments between formal retailers and agents/wholesalers Less-credible commitments with sub-agents, small traders and farmers Adverse selection (best produce sold elsewhere) More black (commission) salesmen No black agents due to inappropriate system

5.3.4 Economic Performance

Markets remain an essential price barometer Increasingly a residual market Decreasing market share Variety relatively limited Some value-adding due to locational utility Prices largely determined by large buyers Mainly generic advertising, limited promotion Entry problems for the informal sector Short formal vs. long informal supply chains

The above factors are the factors issues at the operational level that markets have to contend with in the interest of relevance and longevity.

5.4 CONCLUSIONS

5.4.1 Markets as Institutions

The institutional economic premise that markets as governance structures should be considered as incomplete contracts, which would inevitably evolve due to bounded rationality, was corroborated. Bounded rationality emanated from changes in the value of agency relations, property rights, embeddedness factors, and market conditions. Since inception, the fresh produce markets have not made significant formal and structural adaptation despite significant changes in the environment it is meant to serve. The most important changes include:

(i) The emergence of the low-income informal market.

(ii) Sizable circumvention of the market by market players and others.

(iii) Existence of informal market areas adjacent to the fresh produce market.

(iv) Increased propensity to vertically integrate by firms who supply as well as procure from the market.

(v) The increased importance of product traceability.

(vi) The political intolerance towards white domination of market agencies.

(vii) The acquired political power of low income consumers and informal traders.

(viii) The global trend away from commission sales through agents towards wholesale markets.

The above factors imply that markets as institution have become increasingly incomplete and thus in need of institutional adaptation with regard to governance and subsequent economic performance.

5.4.2 Market Failure

Initially, public sector intervention in the provision of market facilities was justified on the premise that the private sector was not sufficiently incentivised to provide location utility infrastructure, of primary benefit to producers. Further, it was feared that intermediaries would exploit farmers (principle-agent problem) unless public control and institutional embeddedness are introduced to farmer-intermediary relations. The inevitable rise of intermediary power at the formal wholesale and retail levels, concomitant with the marginalisation of producers, castes doubts over the above position. Location utility has become of lesser importance to the formal distribution chain where vertical integration is the key means to ensure lower transaction costs. Market failure is however still relevant to the informal distribution channel where location utility is key to lower transaction costs, lower food prices, public health, and urban planning. Public intervention in providing appropriate market infrastructure seems justified (Karaan, 1999; CMC, 1999; MBB 1999).

5.4.3 Markets or Hierarchies

The high asset specificity of market infrastructure should, in theory favour increased vertical integration of markets as single firms. This did not occur, because asset specificity related risks are perceived only by the legal owner (local government). Some complimentary horizontal integration has occurred, but not within firms. The formal sector has already vertically integrated and thus not locked-in to share the asset specificity risks. Private agents have circumvented the markets or created wholesale infrastructure facilities, which meet their needs sufficiently. The informal sector agents can hardly sustain the infrastructure by themselves, which further exacerbates the asset specificity problem.

5.4.4 Transaction Costs

The transaction costs pertaining to fresh produce markets are depicted below. The *ex ante* and *ex post* conditions are identified as sequential to each other.

Ex ante **conditions**	***Ex post*** **conditions**
Embeddedness	Distrust
Informational asymmetry	Rent seeking
Bounded rationality	Price instability, price takers, prisoners dilemma
Asset specificity	Market dues, informal free-riders
Bureaucracy	Opportunism, market dues
Moral hazard	Policing costs, bonding costs
Lack credible commitments	Bonding costs, hold-up
Perishable product	Adverse selection, revenue loss, reputation
Power imbalance	Monopolistic inefficiencies
Residuality	Price inaccuracies

5.4.5 Governance Structures and Property Rights

The behavioural assumptions of bounded rationality, opportunism and asset specificity (as shown in section 2.6) lead to the recommendation of different contracting processes for the formal and informal sectors. The absence of asset specificity lock-in effects for the formal sector validates the tendency for private ordering and competition, as is the case in practice. Location utilities to the informal sector results in the opposite, hence governance is the preferred contracting process. This implies the development of parallel formal and informal markets where the formal market remains a residual one. Some (albeit less) public sector involvement remains necessary. The result is a hybrid organisational form based on a private-public-partnership mutation as opposed to markets or hierarchies. The conditions of bounded rationality and incomplete contracts however remain valid, but survive on the 'remediableness' principle.[4] Similarly, it is believed that the proposed governance structure will possess superior adaptive properties.

[4] Defines as an outcome for which no superior alternative can be described and implemented with net gains is presumed to be efficient (Williamson, 1996).

5.5 RECOMMENDATIONS

The analysis and conclusions enable the following recommendations aimed at repositioning fresh produce markets from a policy perspective.

5.5.1 Accept that fresh produce markets will continue to handle a decreasing market share due to vertical coordination tendencies for perishable products. Markets will therefore remain residual and subjected to adverse selection.

5.5.2 Find credible complementarities based on mutual incentives, between formal and informal traders. These do exist but require greater bonding given the recent changes in embeddedness factors.

5.5.3 Accept that the agent-wholesaler divide has narrowed, seemingly in favour of wholesalers. The need for legal provisions to enforce an agency-based system has abated significantly. This will begin to address problems of opportunism.

5.5.4 Informal intermediaries (e.g. wholesalers, sub-agents) should be allowed to receive and trade produce without being subjected to the agency regulations.

5.5.5 A private-public partnership model is proposed that allows for greater private ordering and private sector sharing of the asset specificity burden.

The general recommendation is that fresh produce markets will increasingly have to operate in the private domain and will have to become more equitable in terms of participation and appropriate trading systems. Ultimately however, its relevance will not be determined politically but rather but its ability to serve its targeted consumer base.

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CHAPTER 6

AN INSTITUTIONAL ECONOMIC APPRAISAL OF WORKER EQUITY SCHEMES IN AGRICULTURE: THE INCOMPLETE CONTRACTS APPROACH TO THE SEPARATION OF OWNERSHIP AND CONTROL

6.1 INTRODUCTION

The importance of institutional innovation as a key determinant of economic growth has received much attention in economic literature. Joseph Schumpeter in particular was concerned with this issue and the key role of the entrepreneur whose innovations advance growth (Demsetz, 2000). Arthur Lewis (1955) later gave further attention to the institutional factors in society that affect or determines economic performance such as property rights, population, capital, etc. Hayami and Ruttan (1985) later introduced the concept of 'induced innovations' where they argue that institutional changes tend to follow the price mechanism. More recent work relates to the innovations occurring in firms and industries that enhance global competitiveness (Best, 1990; Porter, 1990).

In South Africa the debate on institutional innovation is largely fuelled by the socio-political imperative to affect greater equity in the economy. This policy is further guided by a growth with equity strategy. For agriculture, this implies (*inter alia*) a focus on partnerships, contracts, joint ventures and the like. Agricultural workers are positioned as a target group for empowerment given their prevailing human (vocational) capital. Farm worker Equity Schemes (FES) thus emerged similar to Employee Stock Ownership Plans (ESOP's) common in other industries. Whereas ESOP's appear to have labour productivity gains as their key objective, FES also have empowerment objectives. In FES workers hold shares collectively, obtained with state grants. Third party investors are often involved, including others who qualify for state grants, black professionals/entrepreneurs, private investors, or equity warehousing financiers.

The research is based on the authors' participation, observations and evaluations of about twelve FES over the last five years. This involved several project visits, stakeholder interviews, reports to government departments (Land Affairs, Water Affairs) and mentorship to selected schemes and key individuals over this period. The research was prompted by continuous inquiries into the effectiveness and economic empowerment merits of FES. The reporting on this is mixed and void of an appropriate framework for such appraisal.

This paper is an attempt to present a framework from the domain of institutional economics to ensure that the evaluation is theoretically founded, sound and objective. This is then applied in analysis to identify the aspects requiring further attention to improve the empowerment model. The development of the conceptual model is eclectic, drawing on theory from across economics and social sciences. The analytical emphasis is on the extent to which the occurrences witnessed conform to economic theory as opposed to an empirical basis. Further empirical work could well draw on the conceptual framework developed in this paper.

6.2 THEORETICAL FRAMEWORK

The conceptual framework for appraising economic institutions is derived from Williamson (1999) as discussed in Karaan (2002a). This involves a three-tier analysis of economic institutions: (i) social capital, (ii) governance and (iii) marginal conditions. The discussion in this section follows in this fashion. Social capital is first addressed, including the power and control aspects. The focus then shifts to governance issues including: ownership and control, incomplete contracts and empowerment. Finally, the more conventional neo-classical aspects are addressed by tending to issues related to worker incentives, and finance. This methodology is certainly not exhaustive but the aspects addressed were selected on the basis of their relevance to Equity Schemes being appraised. This type of descriptive and deductive institutional economic analysis is uncommon in agricultural economics and agribusiness, and must be seen as an attempt to pioneer such institutional analysis (*ex post*) to enable agricultural economists to improve their understanding of institutions. The advances of the NIE in agribusiness studies and the recent work of prominent scholars like Alan Schmid (Robison, Schmid and Barry, 2002) and others clearly indicate the necessity of adding this type of analysis to the repertoire of methods/approaches.

6.2.1 Social Capital

Social capital is increasingly acknowledged as a critical aspect in institutional economic analysis. It refers to the features of social organization such as trust, norms, and networks, and can improve the efficiency of society by facilitating coordinated actions (Putnam, 1993). Schmid *et al* (2002) have eloquently commenced the debate on the role of social capital (SC) in the industrialization of the food system. Extensive work on social capital and embeddedness, and the implied path dependency in Africa, is found in the work of Fafchamps (1999). SC can be considered a 'moral resource' that increases with use and depletes when not used, which means that it can have virtuous or vicious cycles. It is a public good as opposed to conventional capital, which is a private good. It often gets produced as a by-product of other social activities.

Trust is one key manifestation of SC and arises out of two related sources: (i) norms of reciprocity, and (ii) networks of engagement (Putnam 1993). Groups with productive norms of reciprocity (i.e. dense networks of social exchange) are more efficient in constraining opportunism and resolving problems of collective action. Networks of exchange/engagement can be formal or informal, vertical or horizontal. These networks (clubs, societies, associations etc.) can be intense horizontal forms of engagement that can be a vital source of social capital in the following ways: (i) they increase the cost to defectors in prisoner's dilemma situations, (ii) foster robust forms of reciprocity or acceptable behaviour, (iii) improve information flows about trustworthiness, and (iv) provide a template for continued engagement based on past successes. On the contrary, vertical networks are less successful in sustaining trust and cooperation irrespective of their density. Here, information flows are less reliable since subordinates hog information as a hedge against exploitation. In institutional analysis however, the existence of distrust is more important than trust. It is also difficult to impose sanctions against opportunism and such sanctions are less likely to be imposed upwards and more likely downwards. SC also manifests as sacred symbols, attachment value, sympathy, empathy, and other non-economic features. It can also be bonding (within a group) or cross-cutting (across diversity). Groups who lack financial capital often revert to creating SC in an attempt to enhance upward mobility and power.

6.2.1.1 Collectivism and individualism

The historical analysis of Greif (1997) provides an explanation for the evolution of the firm when embedded in a collectivist or individualist circumstances. Historically, in both these societies there was an initial reliance on the family firm, which served to reduce transaction costs. However, the further historical development differs starkly. In collectivist societies there is little incentive for introducing an organisational form that reduces the likelihood of forced separations. In individualist societies individual firms became family firms, but family members eventually became replaced by external investors, as equity became tradable. This implies a separation of ownership and control, which required appropriate institutions to surmount contractual problems. It is clear that in the industrialised commercial sector the trend is toward individualism and alienation of equity from the traditional family firm. In the developing sector however, collectivist traits are more observed largely for purposes of increasing bargaining power and gaining social capital given the lack of financial capital.

6.2.1.2 Power

Ownership implies rights over residual control of assets and residual income (or losses). A more difficult notion to understand is authority. Coase (1937) in his seminal article argued that authority is the key coordinating mechanism in the firm and justifies the existence of firms. Alchian and Demsetz (1972) however, questioned the source of authority in firms. Employer-employee relations are governed through authority with reciprocal loyalty and obedience, which is not necessarily the case in inter-firm (contract) relations (Masten, 1988). The source of authority is seated in control over assets (Hart, 1995) and longer-term sustainability. Workers tend to show loyalty and allegiance to gain goodwill to secure their contractual relation with the firm, but tend to have a shorter-term vision and expectations.

A distinction must also be made between formal and real authority. Aghion and Tirole (in Hart, 1995) advanced the idea that someone with superior knowledge may have effective power so that those with legal power follow his/her advice. It may also be in the interest of owners to deliberately create an asymmetry of information so subordinates may wield power to the advantage of the firm (i.e. intermediate/delegated authority). Intermediate forms of ownership are further discussed by Holstrom and Tirole (1991). These various forms of ownership and power are similar to Galbraith's theory of counterveiling power (Williams, 2001), which in this instance would require examining the extent to which workers are able to wield such power in the face of the economic power of the capital strong partner. This would indicate the level of maturity of the venture. This theory is particularly relevant given that workers should be able to exercise political power given their lack of economic power.

6.2.1.3 Embeddedness

Institutions are embedded in circumstances shaped by history and the characteristics of stakeholders, which frame the environment. Agricultural institutions viewed in the context of race and inequality tends to epitomise 'paternalism'. In his extensive work in this domain Alston (2000) finds that this notion comes at a real cost to labour who often pay for this 'privilege'. Farm workers are often embedded in dependency relations with employers for non-wage goods and services, which render them vulnerable to opportunism and influencing. The history of slavery cannot be ignored for its ability to impose a kind of moral overload (Kuran, 1998) representing worker gratification in this context. The question of race has also been acknowledged in the context of inequality and labour preference. Gary Becker (1957) and Arrow (1973) have shown for example, how employers would sacrifice profits in favour of a preferred racial composition of labour. Agricultural relations also tend to be embedded in sentimental attachments to land and physical location. This constitutes emotional goods and attachment value that implicitly influences economic decisions.

6.2.2 Governance

6.2.2.1 Ownership and control

The separation of ownership and control is a subject afforded much attention in economics literature, but has found greater application outside of agriculture. The industrialization of agriculture and the increased cost of land have perhaps reopened the debate in agriculture. Generally, the theories of the firm commenced by Coase

(1937) are considered best able to address the issue. The theory of contracts and agency become particularly relevant and can be traced to Alchian and Demsetz (1972). They emphasised the use of contractual arrangements in appraising the role of management and their reward when efficient in monitoring labour. Jensen and Meckling (1976) advanced this and proposed that contracts are mechanisms whereby principals could monitor agents. Fama and Jensen (1983) examined the role of specialised manager decision-makers who may gain residual claims on firms.

Studies in agriculture in this domain initially focussed on the economics of sharecropping. More recent studies began to focus on the nature and role of management in agribusiness firms, including Roumasset and Uy, (1987), Gallacher *et al*, (1994), and Ravenscroft, *et al*, (1999). Studies conducted in an African and developing country contexts have mainly focused on contract farming (Minot 1986; Glover 1990; Glover and Kusterer 1990; Porter and Philips-Howard 1997; Delgado, 1999; Karaan, 2002, Masuku, *et al*, 2002). Institutional innovations such as contracts provide testimony that the industrialization and globalisation of agriculture will encourage greater institutional dynamism and the subsequent mutations of business models. Economic empowerment has to be considered against this backdrop despite the relative lack of evidence, as it is anticipated that agribusinesses will mimic the institutional innovations occurring in the rest of industry. Hence, the key question here is whether worker equity schemes genuinely constitute such innovation, and if so, what insights can institutional economic theory provide to improve them.

6.2.2.2 Incomplete contracting

A central proposition in this paper is that worker equity schemes as economic institutions are subject to incomplete contracting and the concomitant '*remediableness'* criterion advanced by Williamson (1985). This suggests that the prevailing nature of this institution must be imperfect given that it is still at an early stage in its evolutionary development. In addition it suffers from missing markets required to support its economic advancement. The purpose is then to examine the nature of this incompleteness in order to identify the aspects that need to be addressed so that the institution can progress to greater maturity, if possible.

The theory of incomplete contracting was pioneered by Oliver Hart (Grossman and Hart, 1986) but inspired by Williamson's initial insights. Hart departed from the Coasian premise that firms arise when people write incomplete contracts and proposes that the allocation of power and control subsequently become necessary. Contracts are essentially incomplete due to bounded rationality, and non-verifiability of relevant variables. It is thus accepted that contracts are perpetually renegotiated and redesigned to gain greater efficacy despite the renegotiation cost. These notions of contractual incompleteness and power can be used in understanding economic institutions and arrangements, despite Tirole's (1999) objections to this claim. Incomplete Contract Theory (ICT) attempts to formalise the hold-up problem identified in transaction cost theory by considering the notion of residual rights of control in the allocation property rights (*ex post*). Hart (1995) claims that this approach, especially the inclusion of power, goes beyond the conventional modes of studying economic institutions such as general equilibrium theory, game theory, principal-agent theory, and Transaction Cost Economics (TCE). The latter is closest to Hart's framework due to its emphasis on the costs of writing contracts and the consequent contractual incompleteness.

ICT and TCE are complimentary, and their main difference lies in their treatment of contractual analysis. TCE emphasises institutional adaptation whereas in ICT the emphasis is on incentives (Saussier, 2000). In ICT the contract role is to minimise *ex ante* investment distortions that may affect the distributable surplus *ex post*. In TCE the contract has two goals: (i) it is an incentive tool to encourage investment and (ii) it is a tool that promotes rapid *ex post* adaptations to enjoy residual rights (Brousseau and Fares, 2000). The basic proposition in TCE is that the variety of contracts elucidates the search for adequate organisational responses to differences in the attributes of transactions (asset specificity, frequency, uncertainty), which they monitor. TCE however neglects the role of power and the acknowledgement that institutions are designed to allocate power among agents (Hart, 1985). Dietrich (1994) provides a more detailed critique of transaction cost economics and encourages moving beyond this theory, revisiting Schumpeterian approaches and the principles of 'Just-in-Time' management (Karaan 2002a).

Four aspects are particularly relevant when considering incomplete contracts: (i) ownership, (ii) the boundaries of firms, (iii) securities, and (iv) power distribution

(Sausier, 2000). The former, (i) and (ii) refer to property rights, which is concerned with why ownership of assets (human and physical) matters? Generally ownership matters because it provides power when contracts are incomplete. In addition, ownership allows residual control i.e. the right to decide about asset use outside of a given contract. Conventionally ownership allows appropriation of residual income i.e. entrepreneurial profit. Hart (1995) makes several observations about ownership or property rights. First, an agent is likely to own an asset if he/she has an important investment decision (e.g. use, productivity, maintenance, etc.). Second, complimentary assets tend to fall under common ownership whilst independent assets tend to be separately owned. Third, increasing returns to scale encourages larger firms. Fourth, industries early in their development favour large integrated firms, which over time become de-integrated as industries become more successful (Stigler, 1951). Fifth, a firm's non-human assets bind firms together (asset specificity). Six, control over non-human assets brings control over human assets. The above are all useful in the sense that they provide economic intuition and criteria by which the nature of an institution can be appraised.

6.2.2.3 Empowerment

Empowerment is defined by Blanchard *et al* (1999) as the process of releasing the knowledge, experience and motivational power of individuals. Empowerment models can be assessed in terms of the creation of physical and human capital. This is again used in addressing the fundamental economic problem of unlimited human needs and limited resources that encourage trade. The litmus test for economic empowerment is therefore whether an asset is created or transferred that can be traded in the open economy. In an institutional and poverty context, empowerment is defined as "the expansion of assets and capabilities of poor people to participate in, negotiate with, influence, control and hold accountable institutions that affect their lives" (Narayan, 2002). The definitions above direct the attention to (i) developing human capabilities (i.e. human capital) and (ii) availing a tradable asset, as prerequisites for economic empowerment. In the approach to developing human capital one should discern between capabilities aimed at upliftment and those aimed at entrepreneurship since all human capital does not translate into entrepreneurship. Upliftment and entrepreneurship could be sequential or parallel. It is thus argued that the entrepreneurial process can be considered a three tier process commencing with: (i) upliftment efforts to establish a first threshold of human capital in the TW Schultz (1961) tradition, (ii) the availing of a tradable economic asset to enable economic activity, and (iii) venting entrepreneurship in the Schumpeterian tradition.

6.2.3 Marginal Conditions

6.2.3.1 Worker incentives

It was already established that ownership justifies entitlement over residual control and residual income from assets. Ownership is however known to affect workers who do not possess control rights. Hart (1995) argues that ownership should reside with those who have essential human capital, and when asset ownership is appropriated in favour of those with relevant human capital, worker incentives can be enhanced with subsequent productivity gains. This in essence is the case for worker equity. Another factor is the case for delegated authority in intermediate forms of organisations. It must be acknowledged though that workers who have equity are still better motivated through short-term residual income (high-powered incentive) gained from maximising output, whilst management and owners will retain a long-term interest. Hence, while worker equity can reduce potential hold-ups by workers, it cannot entirely eradicate it.

6.2.3.2 Equity finance

The field of development finance is vast and cannot be extensively addressed here. Some observations are possible in this context. Firstly, good entrepreneurs tend to signal successful investments by financing such with short-term debt, and less successful entrepreneurs tend to shield risk by using long-term finance. The implication here is that good investments are those where the entrepreneur has taken first financial risk before acquiring long-term debt. Secondly, in case of multiple investors it is advantageous to distribute the equity and debt unequally or respectively so the different parties can exert pressure that encourages financial performance (Dewatripont and Tirole, 1994). Similarly, a firm should allocate short and long term debt to different investors since the short-term investor will more aggressively pursue financial performance and the long-term investor will be the more passive/patient investor (Berglöf and von Thaden, 1994). In risky investment schemes, both are necessary.

6.3 INSTITUTIONAL ECONOMIC APPRAISAL

6.3.1 The Embeddedness of Equity Schemes

Assessing the SC and embeddedness aspects of equity schemes requires, firstly, that the motives for the formation of this institution be examined. Secondly, the nature of SC and embeddedness will be assessed. The alignment of motives to embeddedness/SC will subsequently complete this (first-tier) appraisal. The purpose is to assess whether the motives for establishing worker equity schemes are adequately predicated on SC and whether the SC is likely to sustain the institution.

6.3.1.1 Motives

The motives for embarking on an equity-sharing venture with workers must be assessed on the basis of a genuine innovation in the face of transaction costs (asset specificity, uncertainty, frequency). The institution is primarily prompted by socio-political imperatives for agrarian change towards greater equity in land ownership. The institution thus emerged from an attempt by the landowner to retain or secure his asset in the face of political uncertainty. Reciprocity is also alleged to be a motive, whereby landowners intended to compensate workers for loyalty and sustained contributions to the firm. The coincidence with political change however somewhat diminishes its importance and lends greater weight to politics and the anticipated transaction costs. Attachment value to land (emotional goods) is not considered a strong motivator for equity schemes since several of schemes have focussed on new land/ventures (i.e. growth oriented) with little emphasis placed on tenure security as a key motivator. Security of tenure is instead a consequence of the scheme. Another more meritorious motivation is access to alternative markets (e.g. ethical trade). These markets compensate firms for applying ethical practices as well as equity and empowerment issues.

6.3.1.2 The nature of social capital and embeddedness

SC can be assessed by looking into: (i) reciprocity and (ii) networks of exchange/engagement. Schmid agrees but also argues for it to be considered as sympathy or care (Robinson, *et al*, 2003; Schmid, 2003). Reciprocity was treated above (6.3.1.1). The engagement between workers and employers is generally embedded in a history of slavery, racial policies, paternalism, land dispossession, colonialism, social inequality, social injustice, constrained unionisation, and the like. This in no way suggests that equity schemes were all equally disposed to these factors. On the contrary, the evidence suggests that equity schemes have a relatively better than average record in this context. The landowners are observably entrepreneurial and progressive individuals/firms with a propensity for innovation and pragmatism. Nevertheless, whilst there is evidence of positive and above average engagement and care for labour, the entrepreneurial opportunism of the landowner is by far the key source of innovation and energy that brought about this institution.

Trust as an indicator of SC is irrelevant here since the relationship is *de facto* vertical albeit the fact that workers and employers are joint shareholders. Power and authority remains seated with the landowner, which if coupled with paternalism is more entrenched. Workers in the initial stages of the venture are active in planning and decision-making processes, but their lack of human capital in this domain renders them increasingly marginalised over time. The initial collectivist orientation, mainly induced by a small government subsidy, begins to give way to authoritarian management. This finds form in the leadership among workers taking greater responsibility in decisions and interfacing with management. Information asymmetries grow which leads to collective action problems and in turn erodes the SC among the group. Similarly individual in the group become less appreciative of delayed gratification associated with bulky investments, which further exacerbates the situation. The resulting intra-group and inter-partner tensions have not induced any further innovations yet, which questions the merits of equity schemes as a genuinely evolving institution. However, this statement may be premature, given that little time has evolved by institutional standards.

6.3.1.3 Aligning motives to social capital

It clear that some social capital is evident based on the relative traits of workers and landowners compared to the rest of the agricultural industry, despite the negative historical embeddedness. However, it is abundantly clear that the institutional innovation can mainly be attributed to the characteristics of the landowners and their subsequent motivations. The relative lack of human capital and cooperative action problems experienced is further testimony to this. Hence, the motives do not appear to align with SC. Progressive firms would indulge in ethical trade based on simple cost/benefit assessments instead of SC. The institutional innovation as a *credible commitment* remains in question. The arrangement could be interpreted as covert opportunism by landowners to secure their assets in the face of uncertainty or enhance their returns in the marketplace. The opportunism is prompted by the initial trust of workers who expose their equity (state grants) to such opportunism, given their lack of perceived alternatives.

6.3.2 Governance Aspects

Appraising governance aspects commences with looking into the nature of the institution. This firstly involves an assessment of the extent to which the institutional arrangement resembles a separation of ownership and control. This is an acknowledged trend in modern firms and can be anticipated even in agriculture given the accelerated industrialisation of the sector. Secondly, the agility of the arrangement is examined using ICT whereby the incompleteness of the contract is acknowledged. The purpose is to identify, by way of reality or conjecture, the incentives required to correct for incompleteness. Finally, the implications for empowerment are elicited.

6.3.2.1 The nature of the institution

The commercial agricultural sector has faced economic pressures due to the liberalisation and globalisation of trade. This has brought failures (shake-out) as well as sharper competitiveness. Firms are perpetually pressured to craft innovations that will enhance global competitiveness. Equity schemes coupled with ethical trade strategies are certainly a relevant innovation in this respect. The increased industrialisation has brought the gradual decimation of the traditional family firm and producer enterprises in favour of attracting non-traditional capital (Cook, 1995). Equity schemes appear consistent with this trend of diversifying the shareholder composition to attract capital amid economic pressures.

Whilst ownership is diversified, control however is increasingly in the hands of specialized managers who wield considerable power and influence, and are often not from among the ranks of the workers. Although this arrangement appears best for the firm to maximize shareholder returns, it limits the economic development of workers to efficiency gains in labour effort. Efficiency and productivity gains are initially evident but are not sustained, never mind increasing, due to delayed gratification problems. This has become a point of contention and frustration for workers. The ability of workers as principals (shareholders) to monitor the performance of agents (management) is limited for human capital reasons. This asymmetry makes worker shareholders vulnerable to opportunism and has fuelled distrust especially against a background of racial prejudice. The residual rights and control of assets should in modern firms be seated *de jure* with the shareholders. The *de facto* evidence, especially from the few failed cases, indicates that the residual claims do not realize, upon termination or any other stage, partly due to missing markets for such equity. The equity is not easily transferable or tradable in the market and when equity is reallocated it is mostly done for financial relief and risk management. The majority of cases have not shown capital appreciation even by agricultural standards, but the exceptions are notable.

Thus while the model appears to be consistent with the modern trend of separating ownership and control. However, the existing human capital and information asymmetries imply that workers are vulnerable to opportunism. *Ex ante* investment decisions of worker investors are subsequently subjected to opportunism in the *ex post* allocation of residual claims. As discussed earlier, trust is not sufficient to control for this, especially in an environment that is historically embedded in the exploitation of low skilled labour. The innovation thus seems better suited to less asymmetric situations.

Several observations can be made regarding equity schemes as a means of worker empowerment. First, it can be seen as a means of constructive engagement with much space for opportunism given human and information asymmetries. Second, in the absence of effective *ex post* monitoring systems, opportunism will inevitably manifest given the relative lack of social capital. Third, the model is vulnerable to collective action problems mentioned by Olson (1972, 1982) and discussed earlier. Fourth, there seems little 'incentive to alter' (Bardhan, 2000) the model, so that Schumpeterian entrepreneurial internal dynamism (creative destruction) drives economic performance (Best 1990, Dietrich, 1994). Fifth, government agencies responsible for supporting the model employ individuals with 'low-powered incentives' (Williamson) to ensure that the model works once supported. Subsequently, the model suffers from poor financial performance, worker frustrations, and increased dissatisfaction (Karaan, 2002; Tregurtha and Karaan, 2001; Fast, 2000). The problems experienced can be summarized as a combination of a lack of internal dynamism, covert opportunism, collective action problems and generally incomplete design. The latter specifically refers to the inclusion of high-powered incentives that encourage entrepreneurship and the problem of missing markets. The most important missing market is the market for empowerment equity, which once created in the firm, can hardly be traded in the open (or concessionary) market.

Phase 1	**Phase 2**	**Phase 3**	**Phase 4**	**Phase 5**	**Phase 6**
Initial contract	Investment	1st state of nature	Renegotiation	Delivery	Payment
***Ex ante* period**		***Ex interim* period**	***Ex post* period**		
Landowner offers workers shares Coerced worker collectivisation Facilitation services Obtain state grants Equity sharing arrangement Limited worker entrepreneurship		Human capital by exposure Collective action problems Eroding of trust and SC Institutional rigidity Gratification problems Mixed financial results Suspicions of opportunism Lack verifiability Asymmetric power No counterveiling power Unproven residual claims	Dispersion of expectations Labour mobility Third party monitoring/enforcement Develop counterveiling power Adapt grant mechanism Entrench residual claims Dynamic institutional evolution Include incentives for efficacy		

Source: Adapted from Brousseau and Fares, 2000.

Hart and Moore (1988) propose a timeline for analysing incomplete contracts and governance structures. This model is adapted to equity schemes in the figure above. The figure depicts 6 stages of contractual evolution which can also be aggregated into an *ex ante, ex interim* and *ex post* periods. The *ex ante* period is characterised to the point of the investment. The *ex interim* period elicits the key factors that shows contractual incompleteness of the present situation. This enables the key challenges to be identified in the *ex post* period in an attempt the guide the requisite renegotiation that will deliver more appropriate institutions.

6.3.2.2 Empowerment implications

Empowerment objectives have not been reached yet despite the initial expressions. The value of the acquired asset (shares) has little realised and has not exhibited trade value outside the firm. Real ownership as a means of power over residual claims and control has hence not materialised. This may also be due to missing markets for such equity, which is unconventional and not generally associated with promising financial returns. Empowerment must however be built on adequate human capital which remain lacking, despite some improvement due to the experience gained by workers in the venture. The heterogeneity of the group is not sufficiently acknowledged as the human capital and entrepreneurship can vary considerably. Workers at the lower continuum are frustrated and confused about the benefits of equity-sharing, whilst those more inclined towards management and entrepreneurship feel professionally trapped. This 'dispersion effect' is indicative of the need for institutional adaptation.

6.3.3 On Marginal Conditions

The marginal conditions referred to here relate mainly to those that improve the micro performance of the firm. In equity schemes these centre around worker incentives and finance. Equity is expected to be a key incentive to encourage trust, productivity, loyalty, commitment and the benefits of worker gratification. The absence of worker's perceived power over residual claims coupled with the short horizon of workers for gratification has however dampened these incentives. While worker participation in operational, tactical and strategic decision-making occurs, it is reactive and limited by their ability to participate effectively at the higher levels. The process (participation) has become compromised in favour of the product (management targets). Leading workers often clamour for greater management responsibility, which indicates a need for greater vertical mobility of professional labour and talented workers. Human resource development plans require more attention.

Finance is a key determinant for the establishment of equity schemes, either as state grants or concessionary loans. It needs to be established whether schemes are established merely to access these funds. The evidence proves that ventures established where the landowner invests first and the rest remains bankable, perform better than ventures requiring concessionary funding by necessity. Opportunism is also limited in this way. Similarly, equity portfolios including multiple (private) investors with differing gratification horizons also perform better, given the respective pressures that investors are able to exert. State intervention by way of grants and concessions should thus be complimentary to private investment, as opposed to the trigger for empowerment investments.

6.4 CONCLUSIONS

The institutional economic appraisal conducted in this paper confirms that equity schemes are subject to institutional incompleteness as proposed in ICT. The incompleteness stem from the lack of verifiability related to social capital, embeddedness, governance and micro performance. In addition, they lack the requisite *ex ante* incentives to enable *ex post* adaptation, counterveilance over opportunism, and the distribution of residual claims and control. The first reason for incompleteness emanates from the motivations of the initiators, which is opportunism by landowners to secure their assets in the face of uncertainty and/or enhance their returns in the marketplace. The lack of worker effort and options in the early stages raises credible commitment questions. Examining the governance aspects of equity schemes reveal that they are consistent with modern trends to separate ownership and control. However, a key concern is the asymmetry in human capital and subsequently in power, residual control, gratification, and ultimately economic empowerment. The analysis is aimed at identifying the incentives and innovations required to make equity schemes, as a type of shareholder contract, more complete and credible in an empowerment context. Recommendations towards institutional innovation are offered below.

6.5 RECOMMENDATIONS

6.5.1 *Project selection* should favour the following economic criteria to ensure institutional sustainability over the longer-term:

(i) Proven human and social capital

(ii) Bankable irrespective of subsidies

(iii) Progressive and entrepreneurial initiators

(iv) Accommodate growth and equity approaches

(v) Dynamic worker participation from initiation

6.5.2 *Power:* Ensure workers have real residual control and rights that can be exercised. It is just as important to encourage mechanisms by which workers could develop and exercise counterveiling power to offset asymmetries in the allocation of power. In the context of information asymmetries, real or effective power should lie with those who possess more information. Operational information advantages often vests with workers which lends them to shirking behaviour and control over operational productivity. The extent of shirking or productivity gains is a function of social capital including aspects such as trust and subsequent devotion to the ideals of the firm. Since power in the firm is relative, the matter of empowerment is more effective when the emphasis is on ensuring a credible process than a premature product/outcome.

6.5.3 *Incentives:* Introduce *ex ante* incentives to enable appropriate *ex post* adaptation and control over residual rights. Incentives and penalties are critical to encourage entrepreneurial behaviour. Entrepreneurship is the essential force required necessary to sustain economic institutions. These incentives include:

(i) Short-term gratification/returns

(ii) Upward labour mobility

(iii) Human capital investments

(iv) Assist talented workers to take advantage of supplementary auxiliary entrepreneurial opportunities

(v) Encourage 'dispersion' in heterogeneous groups

6.5.4 *Finance:* Ensure projects commence with committed private investment and remains sustainable with private funds. Multiple investors constituting a varied investment portfolio should be preferred, and this can at best be supplemented by government-assisted programmes/institutions. Aggressive financial leverage is initially attractive when empowerment results must be achieved hastily. This is however, too risky in the longer-term given the volatile nature of agricultural investments. Concessionary equity investments that are backed by credible asset/fund management are a key requirement for financial success of empowerment ventures.

6.5.5 *Monitoring:* Third party monitoring is required to curtail opportunism, and provide mentoring.

6.5.6 *Government support:* Support should be more varied and flexible to adapt to circumstances initially and over time as the project evolves. Government should compliment the private sector instead of leading the way. It should incentivise private action, provide safeguards against market failure and opportunism associated with private action.

6.5.7 *Models:* Equity ventures are but one model and several other models should be sought and allowed to emerge from these schemes. Hence, the further evolution of equity schemes should also be encouraged with a clear understanding of the real purpose of worker equity schemes.

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CHAPTER 7

SYNTHESIS

7.1 INTRODUCTION

The purpose of this research was to investigate the institutional dimensions that have a critical bearing on the nature of transactions and businesses that operate in a socio-political milieu that is characterised by a need for economic empowerment. The contribution of this work lies in illustrating the application of key concepts (transaction costs, embeddedness, social capital, governance, etc) from the economics of institutions to contemporary problems in selected cases studies. This chapter commences with a brief exposition on the method employed in this study. This is followed a summary of the preceding chapters including the main theoretical Chapter Two and the case study Chapters Three to Six. The latter part of this final Chapter Seven is dedicated to an elicitation of the implications for institutional design and economic empowerment.

7.2 A BRIEF NOTE ON METHOD

In this thesis, various case studies were examined using a variety of different theoretical approaches referred to above. The case studies were chosen on the basis that they were characterised by the central problem of facilitating the participation of relatively disadvantaged individuals into competitive agricultural markets in South Africa. In principle, the lessons learned from case studies only pertain to that particular case, with limited implications across cases. However, as the analysis also showed that these case studies share an institutional environment that has certain common characteristics, it was possible to identify shared problems, and hence to search for shared approaches and solutions, as will be expounded in the rest of this chapter. The case studies were respectively examined by way of attending to *ex ante* design (oysters), *ex-post* design (mussels), historical examination of the impacts of embeddedness on performance (fresh produce markets), and of social capital and embeddedness (worker equity schemes). Introductory, theoretical and synthesis chapters were added.

The thesis is not conventional in agricultural economics research seen in South Africa, in the sense that it consists of several case studies that were presented or published as papers under peer review. This is apparent in the style in which the thesis is presented. This style accounts for the apparent repetition in theory, which was necessary in each paper to exhibit the theoretical premises and subsequent theoretical advances in each paper. It also accounts for the length the thesis and of each chapter as a paper, due to the limitations set by publishers and editors. The papers were published or presented between 1999 and 2003.

The research method employed also did not follow the conventional empirical inductive method that has come to be expected of most modern scientific enquiry. The inductive method, which derives scientific outcomes from repeated observations and conjectured probabilities, becomes relatively limited when bounded rationality is introduced as a matter of reality. This is the so-called 'induction problem' discussed by Chalmers (1982)[5]. However, an important premise for scientific inquiry is the theoretical construct that precedes scientific observation, and hence acknowledges a theory-dependence of observations. The theory dependence in this research is institutional economics. While this approach also has limitations, it does not lay claim to the *truth,* and allows for falsification through more rigorous testing and further enquiry. In this respect the style is less rationalist, in the sense that rationalism lays claim to universal criteria to which scientific observations must be approximated. Instead, the approach followed is more relativist, which is aimed at obtaining scientific outcomes that are *better under the circumstances*, but not necessarily the *objective best*. The advantage here lies in the ability to derive and craft outcomes that incrementally solve real world problems under imperfect conditions without the burden of endeavouring towards universal standards.

The theoretical approach is also premised on objectivism (as proposed by Chalmers), in the sense that the outcomes of individual actions are determined largely (but not entirely) by the details of the social situation and knowledge base. This places limitations on individual choice despite individual talents and dispositions, similar to the claims of Marx. The research was thus not aimed at deriving universal truths or

[5] Chalmers, A.F. (1982). What is this thing called Science? Open University Press.

any approximation thereof. Instead it is meant to obtain means that are relatively effective in analysing and understanding institutional outcomes under given circumstances with an interventionist agenda of improving the prevailing economic situation.

The exhibition of mathematical rigour has become an expected feature of economic analysis, and standard in empirical work. The new institutional economics has been able to resist this temptation for some time, but is also now beginning to follow suit, given its innate tendency to be relevant and contextual. The older institutional economics has, however, shown greater resilience due to its superior appreciation for insight, understanding, institutional context and wisdom. Whereas the emphasis in the NIE is on tools and answers, the emphasis in the older tradition is on economic thought and finding the rights questions to ask. The purpose here is not to discredit mathematical rigour, but to place it in its correct methodological place as merely a tool. The quality of economic enquiry should come from its conceptual basis and subsequent economic reasoning. This was the approach favoured in this work and explains the tendency towards the old institutional tradition. The research does not rediscover the old institutional economics bur rather introduces its merits in dealing with institutional analysis in the field of agribusiness.

The research method employed in examining institutions is derived from the four tier analysis proposed by Williamson i.e. (i) embeddedness of institutions, (ii) the institutional environment, (iii) governance of institutions, and (iv) neoclassical economics. The first research papers begin with addressing some of the four elements and the latter papers integrate all four levels in the analysis. This approach is uncommon in economics, but presents a more complete analysis of institutions in contrast to the contemporary approaches observed in institutional analysis. The conventional tendency is to use transaction cost economics, incomplete contract theory, social theory on embeddedness, or neoclassical economics *(inter alia)* in a segmented fashion. The approach followed in this work is more holistic and encompassing, and generates greater insight into the nature of the institutions being examined.

The research method employed entailed participant observation of case studies where the researcher is more than an impartial third party observer. The majority of cases studied involved observation and participation over several years before the analysis was formally conducted. This is premised on the notion that understanding of the problem/institution takes precedence over providing superficial answers on the preferred nature of institutions. Often, institutional/organisational models are crafted to achieve an idealised or stylised design such as contracting, equity sharing, franchising, agency, etc. without considering an appropriate design tailored to suit the broader institutional setting. On the contrary, an appropriate design, though more subjected to bounded rationality and incompleteness, has the key advantage of being adaptive and evolutionary as it matures.

Submergence into the institutional setting enables the elicitation of appropriate design, avoiding the less sustainable stylized design. In this regard, the institutional outcomes anticipated or selected (*ex post*) were informed by the favoured business configurations that the experience and research observations (submergence) and interactions yielded over time as a form of consensus. For example, the choice of contract farming in mussels was theoretically validated but the experiences in the mussel industry initially favoured large vertically integrated firms. The research intervention facilitated the identification of transaction costs and subsequent means of reducing such costs through improved coordination and contracts. Hence, contract farming was chosen and implemented as the enterprise type with the understanding that it may become more sophisticated as the business evolves and contracts become mores specified to cater for reductions or emergence of new risks. Eventually this may result in a conventional franchise arrangement.

The institutional models studied or proposed in this work also acknowledge bounded rationality and subsequent incompleteness. The implication is that all existing institutions or proposed models are accepted as remediable, which is the criterion required to induce adaptation and evolution towards more efficient design outcomes. The eclectic inclusion of incomplete contract theory is manifest to this recognition.

Several propositions were advanced as aspects that matter in terms of the nature of institutions, and positively influenced or shaped the analysis. These aspects are explained in chapter 1 and include social capital, history, governance, transaction costs, vested interests, and tacit knowledge. These aspects are particularly relevant in the context of their profound influence on the nature of institutions. Obviously they are not considered exhaustive.

7.3 SUMMARY

The objective of the study is outlined in chapter, which was to develop an understanding of institutions and its value in shaping economic outcomes at the firm level. The emphasis on understanding somewhat favours the old institutional school nurtured by John Commons and is outlined in this chapter. However, unlike some work on the economics of institutions, the neo-classical economics is not rendered invalid but advocated as complimentary to the new institutional economics. The emphasis is however placed on the nature of the firm in the Coasian-Williamson tradition and the reasons for the existence of firms. Given that firms are embedded in institutional environment, it is argued that in the analysis of institution several factors matter in particular. This includes: social capital, vested interests of actors, history, governance, transaction costs, and tacit knowledge. The chapter concludes with an outline of the thesis and brief summaries of each chapter.

Economic development endeavours in agribusiness have much to gain from the theories and approaches related to the New Institutional Economics (NIE). The central proposition in Chapter Two is that institutions, as shaped by embeddedness and social capital, matter in determining economic performance, largely because they determine who takes part in the economy, and under what conditions they take part. As a result, much attention is devoted in the Chapter to understanding theories related to social capital. The analysis commences with an overview of the theories that relate to the roles of institutions in economic theory by identifying what institutions are and outlining their Coasian premise. The old and new institutional economics are then contrasted in order to illustrate the merits of staying in touch with the old institutional tradition, which continuously reinforces and expands the field of institutional economics. The ability of the old institutional theories to better deal with social capital is a particular case in point. This leads to some remarks around institutional analysis, where the role of social capital and embeddedness is acknowledged. The next section deals with transaction cost economics, where the purpose is to identify the theoretical shortcomings of this theory with a view to moving beyond transaction cost analysis. This then leads to the key emphasis of the chapter, i.e. social capital. Finally, these theoretical frameworks are used to elicit implications for economic development and empowerment efforts in agribusiness.

The main point of departure in Chapter Three is that small-scale mussel farming in Saldanha Bay is more efficient than production by large vertically integrated firms because a number of transaction cost factors favour looser forms of coordination between mussel production, marketing, processing, and the provision of support services. However, the structure and level of transaction costs also favours large scale farmers, and constrains the participation of emerging farmers in such contractual relations in the open economy. As a result, the transaction costs associated with mussel mariculture are discussed and analysed in this chapter with the purpose of identifying an appropriate farming model that favours small-scale emerging farmers. Four models are compared, and agricultural franchising found to be the most suitable to their needs. In this model the efficiency advantages of small-scale production are retained and high transaction costs are circumvented through more effective vertical coordination. The relative scale used to compare transactions costs across various models has limited methodological merit other than impressing on the need to identify the relative values, as opposed to the absolute values of transaction costs. The real merit of the exercise lies in the identification of transaction costs that require intensive observation and human judgement.

Chapter Four contains a case study on the oyster industry in South Africa, an industry that can grow due to favourable natural resources and favourable market conditions. This chapter builds on the previous chapter on mussel farming where the need for contract arrangements was established. This chapter advances this work by accepting that opportunity for contracting between small growers and larger oyster farms are feasible, but pay more attention to the nature of an appropriate contractual arrangement. The possibilities of contract farming in the oyster industry are discussed by examining experiences with contract farming and the market imperfections associated with this model of vertical coordination. From this, the appropriate contractual arrangements are derived on which can be used in guiding the implementation of a contract farming scheme. The contractual arrangement includes financing and securities, production management, resource provision, market specification, labour aspects, form size and facilitation aspects.

In Chapter Five, a case study of large fresh produce markets is presented within the framework of the New Institutional Economics in order to investigate the implications for the formal and informal sectors under changing market conditions. Large fresh produce markets face the need to adapt to trends in modern day marketing of perishable products, mainly increased circumvention as the formal supply chain becomes more vertically coordinated. These markets, however, retain greater value in the supply chains that serve informal markets. In this chapter an institutional economic analysis is conducted to identify the factors inducing institutional change and to show how these bring about maladaptation manifested in transaction costs. These costs stem mainly from institutional embeddedness, opportunism, and asset specificity, which resulted in bureaucratic costs, moral hazard, rent seeking, adverse selection, prisoners' dilemma, and a lack of credible commitments. The identified transaction costs aspects are subsequently used in proposing more appropriate governance structures.

In Chapter Six an institutional economic appraisal is conducted of worker equity schemes in agriculture. The focus here is on an incomplete contracts approach to the separation of ownership and control. The appraisal confirms that equity schemes are subject to institutional incompleteness, as proposed in Incomplete Contract Theory. The incompleteness stems from the lack of verifiability related to social capital, embeddedness, governance and micro performance. In addition, worker equity schemes lack the requisite ex ante incentives to enable ex post adaptation, are characterised by counterveilance over opportunism, and do not address the distribution of residual claims and control.

The first reason for incompleteness emanates from the motivations of the initiators, which often represents opportunism by landowners to secure their assets in the face of uncertainty and/or to enhance their returns in the marketplace. Furthermore, the lack of worker effort and worker options in the early stages of such projects raises credible commitment questions, while an examination of the governance aspects of equity schemes reveals that they are consistent with modern trends to separate ownership and control. However, a key concern is the asymmetry in human capital and subsequently in power, residual control, gratification, and ultimately economic empowerment.

In this regard, the analysis in Chapter Seven is aimed at identifying the incentives and innovations required to make equity schemes and (other empowerment ventures), as a type of shareholder contract, more complete and credible in an empowerment context. Recommendations to advance institutional innovation are offered.

7.4 THEORETICAL IMPLICATIONS

The method employed in this research was mainly conceptual, and progresses through various discourses and disciplinary domains related to institutional economics and organizational development. The four framework for analysing institutions guided the selection and application cases studies and the cases were thus selected for their value in addressing each institutional level respectively, though not exclusively. In the case studies that are presented, transaction cost economics is first applied, providing an introduction to the broader field of new institutional economics. However, while these approaches were found to be valuable in determining certain structural outcomes, they are limited in their ability to engender a greater understanding of institutions in terms of factors such as their purpose, nature, path dependence, etc. The result was that the discourse returned to the precepts of the old institutional economics, in which the analyst finds a cautionary note against the positivism, rationalism and reductionism of the NIE. In the tradition of the old institutional economics, the new institutional economics was further found to be too trusting of markets, to ignore welfare criteria in appraisals, and to be too anti-interventionist, i.e. to be too close to the neoclassical antithesis of the old institutionalists.

While the old institutionalists were often justly criticised for being largely reactive to the dominant neoclassical paradigm, one of their greatest strengths for the purposes of addressing the problems at hand in this thesis is their emphasis on the key role played by factors such as social capital, embeddedness and the institutional environment to which firms and agents are subjected. This emphasis is consistent with Commons's definition of institutions as 'individual action controlled by collective action'. A key implication here is that the earlier case studies reported in this thesis were aimed at eliciting institutional solutions, whilst the latter cases instead focused on developing insights into and understanding of institutions. This deeper understanding provides the basis for policy recommendations that take into account the particular difficulties faced by emerging farmers in the peculiar circumstances of post-apartheid South Africa.

The early focus of the research was, thus, on appraising and recommending more appropriate or efficient institutional outcomes. As a result, issues such as transactions, organizational designs, agency and contracts were visited in various contexts. One strength of this focus was the resultant inclusion of incomplete contract theory, hence in part a saving against the tendency of the old institutional approaches to be reactive, relatively abstract and inconclusive. The analysis also moved closer to the concerns normally addressed in industrial organization theory, but did not venture fully into this expansive domain. Future research in the field of agribusiness could well take up this challenge.

7.5 IMPLICATIONS FOR INSTITUTIONAL DESIGN

The inculcated sensitivity towards institutions and the experience gained from indulging in organisations design has yielded important and guidelines and lessons that are valuable when engaging in this domain. This section elicits and offer these criteria and approaches in an attempt to distil the benefits of the study in the interest of similar efforts.

7.5.1 Idealized Design

At the commencement of this work the approach was primarily to obtain an optimal institutional design for an identified institutional setting, based largely on the existence and extent of transaction costs. This approach was prompted by the conventional approaches in the NIE literature. The strive for optimal solutions obviously has neo-classical underpinnings and is embraced by the NIE, though less favoured by the old institutionalists. Institutional design does not only evolve from optimisation imperatives. Optimisation is in itself a purpose and outcome of economic activity. Appropriate institutional design is rather a process engaged in for the purpose of continued learning that is adaptive, operationally viable and technologically feasible. The acceptance of the 'remediableness' criterion and the inclusion of incomplete contracts theory implied that imperfect design is acceptable and often a necessary condition to induce creative dynamism of the Schumpeterian kind. This premise allows for frequent modifications to institutional design concomitant with the adaptive learning process.

7.5.2 The Origin of Transaction Costs

The existence of transaction costs is well acknowledged in the NIE literature. The emphasis has mainly been on their prevalence and magnitude, and the subsequent organisational responses to mitigate such costs. The first papers followed this tradition in institutional analysis, but in the latter papers the purpose was moved beyond this. The purpose became more of determining the *raison d'être* of institutions as well as the related origin of transaction costs. Hence, greater emphasis was placed on aspects such as embeddedness, social capital, governance, and the so-called 'rules of game'. Therefore, whilst transaction costs do matter, it is equally necessary to make sense of where they originate from and why they exist.

7.5.3 Creating a Learning Environment

- The acknowledgement of bounded rationality and subsequent sub-optimality in institutional outcomes embraces Schumpeter's creative dynamism. However, this can only happen in an environment that is conducive to continued learning and adaptation, and that is consistent with progression in human and social capital. This process cannot be too precocious, but must rather be gradual and incrementally adaptive. Whilst the process can be externally induced, it must be directed by its primary beneficiaries to be effective and meaningful in terms of social and economic advancement.

- Effective incentives and penalties are necessary to encourage progression and discourage failure. The design of projects should account for the skills intensive nature of the business in a manner that ensures that the transfer of skills is part of the incentives and penalties of the project, and not dependent on the goodwill of either of the agents. Beneficiaries have to be rewarded in an empowering way for the acquisition of skills, and agents have to be rewarded for imparting skills. However, both should be penalised if the task is not completed successfully.

7.5.4 Acknowledging Social Capital and Embeddedness

The first tier analysis of institutions was established as social capital and embeddedness that further shapes the institutional environment, governance, and marginal conditions. Social capital in particular is considered valuable in facilitating and safeguarding transactions in the face of imperfect information and opportunism. The NIE has not given sufficient credence to this in analysis and institutional design efforts. The old institutional economics makes substantial contributions in this instance specifically. Institutional design is thus more than an exercise that involves addressing *ex ante* incentives and *ex post* governance. In addition, it should involve a greater sense of the key role played by embeddedness and the related factors that may either constrain or be of benefit in transactions and organizations.

7.5.5 Human Capital and Entrepreneurship

Economic development and empowerment in agribusiness is a central theme in this research. Prominent economists like Gary Becker, TW Schultz, Arthur Lewis, Francis Fukuyama and others have made substantial contributions towards establishing human capital and entrepreneurship as the real basis for economic development and the performance of individuals and firms. Institutional design can hardly substitute for this economic vigour and zeal. These two elements are mutually inclusive yet different, and both necessary conditions for economic performance and empowerment. The historical context of this reasoning could be seen following the Marx, Weber, North position. However, the economic empowerment context of this study is one of shorter term interventions required for economic advancement that takes the line of development as a matching of scarce human capabilities attempting to take advantage of ample economic opportunities. The opportunities act as a pull factor constrained by deficient abilities and entrepreneurship as advanced by

Schumpeter. Empowerment is considered this fast tracking process that intends to accelerate the rate of human capital acquisition whilst taking advantage of economic opportunities.

7.5.6 Support Structures

Softer dimensions like social capital, human capital and embeddedness must be complimented by harder dimensions such as governance, the rules of game and organisational design. Various designs/models were considered in the case studies presented in this thesis, including contract farming, employee ownership schemes, franchises, integrated firms, and agency arrangements. The purpose was not to identify model options, but instead to appraise the appropriateness of models through institutional analysis. The emphasis is thus on the support structures that determine the suitability of models, such as incentives, penalties, internal dynamism, transaction costs, etc. Once chosen however, the structures become deterministic in promoting or enforcing desired (and unintended) economic behaviour. The support structures are accepted as forms of incomplete contracts, emphasizing the need for continued adaptation in a learning and enabling institutional environment. Often, rigidity around chosen models constrains the required adaptations towards more efficient outcomes as the soft and hard assets of individuals and firms expand. On the other hand, the tendency to introduce leading models (e.g. contract farming) or early innovations (e.g. equity programmes) that are inconsistent with the softer dimensions could bear serious unintended economic and societal consequences.

7.6 IMPLICATIONS FOR FIRM LEVEL DESIGN

In addition, to the implications for institutional design offered above, this section presents the derived implications and criteria that can aid in the design of ventures.

7.6.1 Participant / Beneficiary Selection

In situations where affirmative selection and corrective action is required, the tendency is often for first or third parties to select the second party beneficiaries. This procedure is highly susceptible to information asymmetry and bounded rationality.

From an entrepreneurship point of view self-selection of beneficiaries is more desirable and economically sound, given that so little is known about what motivates entrepreneurs to embark on that path. Self-selection procedures bring with them a greater probability of opportunistic entrepreneurial talent, whereas external selection often carries the guise of paternalism, intended worker gratuity, control retention, and the like. Under circumstance where natural entrepreneurial talent has been suppressed it must be assumed that such talent is destroyed, latent or distorted. Whatever the case may be, it is possible to rekindle this talent through effective mentorship.

7.6.2 Mentorship

Affirmative entrepreneurial development implies a deficiency in experience, talent or human capital to be competitive *per se*. This type of deficiency cannot be rectified for through mere fast-tracking, but can in the short-term be supplemented with trusted mentorship. Various types of mentorship were observed:

(i) The *benevolent paternalism* that takes charge of matters in an authoritarian fashion in the acclaimed interest of the intended beneficiary, with or without beneficiary approval and obedience.

(ii) *Self aggrandisement* where the intention is to assist in the advancement of others to please oneself and to attain societal acclaim.

(iii) *Philanthropy* where the motivation that underpins mentoring is Divine oriented.

(iv) *Incentivised self-interest* where involvement requires an economic pay-off such as payment, business enhancement or socio-political gain.

(v) *Constructive engagement* refers to mentorship that is fuelled by positive zest of individuals who perpetually strive towards positive outcomes.

(vi) *Goodwill mentorship* where the mentor exerts effort solely in the interest of beneficiaries without expecting returns.

The above typologies are only indicative of types of mentorship and are not mutually exclusive. They are all considered positive variants of mentorship as opposed to opportunistic types. All may be equally effective in the short run, but the highly embedded ones (goodwill, philanthropy) can be expected to be more enduring. On the other hand, incentivised self interest is an effective catalyst towards human development and economic performance, besides the concerns over its endurance and sustainability. Hence it must be fuelled by high-powered business incentives in a manner that is sensitive towards human capital, incremental learning, overt opportunism and social capital Goodwill mentorship is considered the ideal type of mentorship because it is safeguarded with trust.

7.6.3 Social Capital

Initiatives that involve a greater degree of social capital have a greater probability of success especially given the incidence of trust. However, social capital is not absolute and can be eroded or destroyed by opportunism or chance factors. Social capital (as described in Chapter two) is a key ingredient, if not a prerequisite for building business relationship between unequal parties. This inequity is a feature of developmental circumstances that are exhibited in the various case studies. The anticipated mistrust and distortions in human and business relations that is characteristic of the socio-political context can be a serious impediment to economic activity that generates greater equity. It is necessary therefore to focus on the existing social capital and to invest substantially in the creation of social capital early on and continuously. This requires constructive engagement often initiated by the better-endowed party that incrementally builds social capital from reputation, exchange, network access and exposure. This also implies that goodwill should precede self-interest without obscuring self-interest. This further indicates that the lesser-endowed be afforded time to reduce informational asymmetries (transaction costs) before transacting. Some of the case studies proved that business interactions were facilitated initially by the available social capital between workers and employers (mussels, equity schemes). Non-performance or delayed performance quickly eroded the social capital that prevailed because transactions were expedited for financial or political reasons.

A key mechanism for building reputational social capital and trust is by scheduling risk in such a manner that the better endowed party assumes disproportionate risk earlier and gradually expose the lesser-endowed party over a longer time horizon. An important aspect of such risk scheduling is ensuring that intended beneficiaries receive priority over the 'tangible' returns. Poorer people generally have a shorter horizon for returns and it is important for motivational reasons to realise tangible returns over the short-term. This is also part of fostering an appreciation for the risk-return realities of business. Building social capital also requires disclosure of interests by parties for several reasons. Firstly, a history of exploitation fosters mistrust and suspicion that must be candidly addressed before it can be eradicated. Secondly, candid disclosure of interests generates trust. Thirdly, understanding the reasons for engagement and disproportionate risk profiles promotes goodwill and reciprocity.

They main implication of the above discussion for project design is that the need for building social places emphasis on the process of engagement as opposed to the desired structural outcomes. If the process by way of social capital resembles a credible commitment, the outcomes can be expected to more amenable to mutual expectations and incremental improvements (remediableness).

7.6.4 Entry and Exit Conditions

- The agricultural sector is notoriously difficult to enter for prospective farmers because of the high capital requirements and the industry-specific skills that are required. However, these industry-specific capital and skills requirements also make it very difficult to liquidate fixed assets if the farmer needs or wants to exit the industry for some reason or wishes to trade equity. Hence, there has to be an exit strategy for parties to a venture in the event that circumstances change in a manner that makes exit desirable.

- Economic development programmes place much emphasis on identification of beneficiaries and the initiation of economic activity (i.e. entry conditions). This is a rational concern in a sector such as agriculture, where the entry threshold is affected by a relatively large capital requirement (because a high proportion of capital has to be sunk into land). Equally important however, is the need to cater for exit conditions in the case of failure to either penalize or relieve non-performers.

- The design of the project should avoid a situation where emerging farmers had to sink so much of the capital available to them (whether their own, borrowed, or in the form of grants) into land/asset purchase that the business enterprise had no chances of becoming commercially viable. This would require that innovative financing mechanisms should be put in place, including sources of equity; mechanisms to manage risk, which afford financiers greater comfort when used as collateral; alternative grant funding sources. It also requires project design that does not force participants into land/asset purchase as the only means of entry into the sector/firm.

- A project should be so designed that there is an immediate and tangible return to the participants that would make a real difference to their lives. This could be in the form of business or personal assets. Care should be taken, however, that immediate consumption needs do not crowd out future wealth, although consumption needs should still be met.

7.6.5 Safety Nets

The same capacity deficiencies that establishes a need for mentorship also makes it necessary to introduce safety nets against the occurrence of chance events, opportunistic behaviour in markets, and information asymmetries. Safety nets could be insurance, risk management programmes, recourse (fall-back) positions, temporary limitations on tradability of assets in a worker equity scheme, training programmes, and so forth.

7.6.6 Parallel / Concessionary Markets

Economic development efforts are often plagued by market opportunism in the presence of weaknesses to contend with such behaviour in competitive markets. This makes it necessary to introduce incubation whereby emerging entrepreneurs are temporarily hedged against opportunism. This involves the creation of temporary parallel markets that ring-fences and limits open trade in aspects like equity, land, finance and commodity markets. Aspects that could be included in an incubation programme includes concessionary finance, targeted subsidies, concessionary compensation, training, mentorship, preferential market access, reduced transaction costs, preferential information and business intelligence, and facilitation into enabling business networks.

7.7 IMPLICATIONS FOR EMPOWERMENT

In addition to the factors mentioned under 7.6, a number of further issues may require specific attention when designing empowerment ventures.

7.7.1 Definitions

Economic empowerment relates to a situation where an individual or entity is enabled and acquires a tradable asset. Being enabled refers to the availability of human, social and physical capital required to managing the acquired asset in an entrepreneurial fashion. Hence, economic empowerment has human capabilities and tradable assets as necessary conditions for entrepreneurial behaviour when such behaviour is constrained.

7.7.2 Beneficiary Selection

Beneficiary selection is often viewed as an interventionist action of positive selection of individuals who are perceived as candidates who promise success. This is however, subjected to the cognitive and informational limits of the selector/s, despite their expertise. In reality, entrepreneurs practice *self-selection,* of themselves and each other, and this practice must be encouraged and relied upon for effective selection. Greater equity in selection can be prompted, but not at the expense of entrepreneurial talent.

7.7.3 Social Capital

Social capital lends much support to economic interaction especially when markets fail to provide strategic information (e.g. harmful opportunism, behavioural inconsistencies, etc). Social capital is of greater significance in situations where it is severely eroded or distorted, like political, economic and human developmental distortions. The tendency for business activity to be forged around weak links remains a realistic occurrence, but suggests that social capital investments in relationships are critical (*ex post*) to safeguard transactions against bounded rationality and information asymmetries.

7.7.4 Embeddedness Factors

Embeddedness of institutions has to be acknowledged and examined to enhance understanding of the existence and performance of institutions. Such factors are often obscured yet powerful in influencing behaviour and rationality.

7.7.5 Mentorship Requirements

Mentorship remains a key mechanism to contend with informational asymmetries, transaction costs, contract incompleteness and human capital deficiencies. It can be considered a form of human capital manifested in 'benevolent paternalism'. The tendency is to consider mentorship as a form of business relationship to mutual economic advantage. This view has an obvious business bias. Ultimately, it is contended that mentorship is a voluntary action based primarily on non-economic persuasions (e.g. self fulfilment, aggrandisement, benevolence, munificence, philanthropy) and secondarily on economic interests. The former type, has greater longevity, is more encompassing, and a superior form of social capital. The latter requires business incentives and elements of opportunism to be effective, and hence often limited to a particular transaction or context. These two manifestations of mentorship need not be mutually exclusive. However in a developmental context, the former is of greater value.

7.7.6 Project Selection

Empowerment schemes show better performance and resilience under certain conditions and project types. Positive selection around the following criteria and conditions should achieve better performance:

(i) *Relatively lower technological barriers*

A key understanding of empowerment is that people are afforded an opportunity for economic advancement beyond their prevailing capacities or level of human development. Part of this deficiency is related to their abilities to contend with technology, and obviously a lower technology threshold suggests a better ability to deal with it and lower transactions costs.

(ii) *The possibility for technological progression consistent with capacity enhancement*

A further implication to (i) above is that technology barriers be deliberately lowered to ease entry and early adoption, and then gradually increased as the abilities are expanded through gains in experience, confidence, and risk behaviour. This was a key lesson from the mussels and oyster cases.

(iii) *Lower risk markets despite the lower return in such markets*

High investment returns are usually associated with riskier enterprises. Given (i) and (ii) above, such businesses imply larger gaps between risk and abilities of empowerment beneficiaries. Hence, lower risk markets imply lower transaction costs must be favoured.

(iv) *The availability of effective risk management mechanism albeit at cost*

Assumed deficiencies in management capacity emanate from lack of experience are other factors related bounded rationality and information asymmetries. This means that risk management become a key design aspect with costs implications. Costs may be the costs of incentivised mentorship, monitoring, insurance, safety nets, external management in the early stages, and various capacity building efforts.

(v) *Relative price stability*

Systemically volatile prices increase risk and are more difficult to finance when financial resources are deficient. Sophisticated risk management mechanisms are may be desirable but prone to error or mistrust when the requisite insight and expertise lacks relatively.

(vi) *Incubation opportunities*

Ventures that allow for the introduction of incubation (see 7.5.6) mechanism should have a better success rate in the longer term because of the supportive environment and managed risk profile that is associated with it. Obviously it must be assumed that the incubation is phased out at all times.

(vii) *Relatively inelastic markets with established off-take*

The challenge of contending with production risk and market risk simultaneously can be arduous. Engaging in markets that exchange relatively price/demand inelastic goods and services has the benefit of reducing marketing risk.

(viii) *Possible slip-streaming with larger firms who contends with greater risk*

The ability to transfer or share a proportion of risk with stronger partner is an advantage to smaller/weaker firms.

(ix) *Avoid long-term lock-in effects that dampens entrepreneurship*

Ensuring effective exit conditions and avoiding constraints on the natural or accelerated development of weaker firms will promote entrepreneurial behaviour.

(x) *Initial goodwill complimented with gradually increasing countervailing power*

The goodwill upon which initial economic engagement is based should not remain but should rather accede to more effective counterveiling power between the transacting parties.

7.7.7 Contemporary Defects

Several fundamental and nuanced deficiencies were identified when appraising economic empowerment, which either constrain or derail the empowerment imperatives. Hence, they should be monitored, censored and avoided. The defects include:

(i) *Inclusion of adequate penalties and incentives for performance management*

Developmental initiatives, like the case studies are primarily impelled by political imperatives for equity that must gradually be transformed into business imperatives to be economically sustainable. When such an initiative is led by the private sector (e.g. mussels, oysters, worker equity schemes) they attempt to gain maximum goodwill through corporate social responsibility motivations, and less by business growth and efficiency gains. As a result, less attention is initially paid to the design and inclusions of 'high powered' incentives and penalties that will bring about more business like behaviour that will more pertinently bring business growth, efficiency and sustainability. The goodwill intentions, though well meant, can dampen entrepreneurial behaviour and incite dependency among beneficiaries, as well as opportunism on their part to obtain benefits that they should earn through own effort.

(ii) *Opportunism in the face of informational and power asymmetries*

Opportunistic behaviour is an acknowledged feature of entrepreneurship and the private sector. When opportunities to vent opportunism are thus presented, it is expected that they will be taken advantage of. This is particularly likely under conditions of information asymmetries, which is s feature of developmental circumstances. Information asymmetries were identified in all the case studies and the implications deliberated. The initial goodwill exhibited is also meant to imply that the initiators of projects and to a lesser extent the beneficiaries, depend on mutual trust that is typically associated with weak ties (see Chapter Two). Whilst trust is an effective hedge against early opportunism, it is no guarantee against it later. When opportunism inevitably manifests later with prevailing asymmetries, important social capital is eroded and the sustainability of the business is threatened.

(iii) *Over-design of schemes in manner that is inconsistent with abilities*

Human capital endowment and expansion is a key proposition throughout this research and a prerequisite for successful projects. A common mistake observed with mussels (franchises), fresh produce markets and equity schemes are that initiators, facilitators or private partners tend to design project based on idealised outcomes (structures, performance, income, risk, etc.) instead of focussing on credible processes that will achieve appropriate self-determined outcomes. In the latter case, gradual expansion acquired human capital can influence the nature and design of the project. This was found to be more sustainable as observed in the case of mussels where workers were not encouraged to adopt franchises at commencement though this was theoretically the desired outcome. It is proposed that imperfect yet more appropriate outcomes be embraced as more sustainable since they are more consistent with human capital. A further implication is that they remain dynamic and able to incrementally adapt to human capital improvements.

(iv) *Paternalism that substitutes for entrepreneurship*

Benevolent paternalism is considered a positive form of social capital. Other forms observed includes: aggrandisement, philanthropic, empathy, dictatorial, condescending, good-natured, fraternal, or simply conventional (the right thing to do). In many instances observed this paternalism leads to the taking initiative on behalf of beneficiaries that absconds them of responsibilities, limits their appreciation for assistance, encourage opportunistic expectations and discourage entrepreneurship. Paternalism must therefore be appraised and kept in check so as not to replace entrepreneurial initiative. This is also true for government officials and facilitators who tend to drive projects for political purposes and targets, and in the process tend to take initiative that target beneficiaries should have taken and managed.

(v) *Lack of alignment between social capital and business motives*

For empowerment projects to succeed requires the availability of sufficient social capital at commencement and a gradual building of social capital through further interactions. When social capital is generally deficient or distorted by socio-political history, like South Africa it becomes more critical to ensure that a level social capital is built or restored before empowerment projects are commenced to elicit trust in the business oriented intentions of such initiatives (non-exploitative, credible commitments). In the absence of social capital, the business intentions would be interpreted as opportunistic as argued in the case of some worker equity schemes in commercial agriculture. The implication is thus that when: (a) social capital is deficient, it should first be built; (b) distorted, it should be corrected; and present, it can be capitalised on.

(vi) *Substituting labour for entrepreneurs*

A common feature with empowerment initiatives in South Africa is the tendency to favour workers as beneficiaries in projects. It is believed that this can be attributed to paternalism and a concern over the transaction costs associated with less known entities or individuals. It is however argued that labour cannot be equated with entrepreneurs given that entrepreneurs must primarily be targeted to achieve sustainable economic development. It is conceded though that some workers may be advanced towards entrepreneurs as shown in the case of mussel farming, if a conducive environment and support structure is in place. Nonetheless, it must not be assumed that worker groups and individuals can replace entrepreneurs. In a country with a history of oppression it can be expected that entrepreneurship is subdued, distorted by opportunism or captured amongst labour. Worker equity schemes and contract farming operations are possible means of releasing entrepreneurship from labour. If this is not achieved, labour should be allowed to revert to compensation for productivity gains or normal wage labour as a form of safety net. Another implication is that real entrepreneurs can be allowed to contend with greater risk exposure in relation to progressive advances in human capital.

(vii) *Designing for structural outcomes instead of economic initiative/space*

Many empowerment initiatives commence with a search for an enterprise model that hypothetically guarantees success. This was the case with oysters and worker equity schemes. This disposition induces an institutional rigidity that limits the evolutionary dynamism required to allow the nature of the enterprise to incrementally adapt to the abilities of the beneficiaries. It may therefore be necessary to choose a less efficient enterprise type earlier and allow for a more efficient one later. This was the rationale with selecting contract farming in the case of mussels instead of franchising or large vertically integrated firms. Allowing this space for evolution is considered a key means of rewarding entrepreneurs for efficiency gains and risk taking behaviour.

(viii) *Experimenting with failed collectivism for political gain*

The abundant numbers among the electorate, unemployed, labour and previously disadvantaged groups create pressure to empower larger numbers of people (i.e. broad-based empowerment). Another observed factor is the small state grants for land reform in the face of high land costs. These factors encouraged collective action in empowerment projects, which is largely induced by political motives. Collective action in land reform and enterprise development has historically been a feature in socialist societies, and generally did not fare well due to serious collective action problems. Such problems were particularly observed in worker equity schemes as well as the other cases though to a lesser extent. It is argued here that the failures of collectivism in enterprises be acknowledged and avoided given the capitalist inclinations of the economy. If not, initiatives could be suspected of political opportunism and casts doubt over the real intentions and motivations of engaging in empowerment endeavours.

The factors mentioned above can cryptically be summarised in the table below.

Weak drivers	**Strong drivers**
Workers as shareholders	Entrepreneurs as shareholders
Favour experience in labour	Favour the youth as beneficiaries
Groups schemes	Individuals as partners
Inclined to establish projects	Inclined towards business
Government driven	Partner (private) driven
Redistribution objectives	Growth objectives
Ethnicity stratification	Black entrepreneurs
Pursue pre-designed models	Follow sound business principles
Aggressive financial leverage	Ensure equity contributions
Paternalism	Social capital
Promote new technology	Adopt proven technology
Financial capital	Human capital

7.8 AREAS FOR FURTHER RESEARCH

The research conducted and experience gained has highlighted several areas where further research would be useful. These include:

7.8.1 The Origin of Transaction Costs

One of the first inclinations in transaction cost economics and the new institutional economics is to identify transaction costs and elicit their implications for institutional design en adaptations to create more efficient institutions. Often too little attention paid to the sources and origin of transaction costs and can subsequently lead to inappropriate design. Transaction costs can emanate from bounded rationality, information asymmetry, asset specificity or opportunism. However, these may occur or originate from any of the four levels/tiers identified for institutional analysis. For instance, opportunism in specific transactions may result from pervading opportunism in society and the economic environment due to the general lack of positive social capital or embedded suspicion and hatred based on a history of social and economic exploitation. Many countries with colonial histories of exploitation, oppressive dictatorships, ethnic conflict, class distinctions, and the like tend to reflect such opportunism. Such opportunism increased the cost of screening, monitoring, bargaining, securing and information. Institutions hence adapt to take the form that reflects the lowest transaction cost as opposed to the most efficient financial arrangement, as the latter could have a higher risk profile.

7.8.2 Further Case Studies

The use of case studies has a distinct disadvantage in that the evidence and results are should only pertain to the particular studies with limited extrapolation value. They were chosen for the value it extracts from specific circumstances and the insight and understanding they are able to generate. Nonetheless, more case studies of both qualitative and quantitative types are required to enrich this area of research to provide the subject with more evidence and material for drawing broader theoretical proposition and premises. This would also be useful in gaining a better understanding of the nature of institutions and their functioning.

7.8.3 The Nature and Role of Social Capital

A key recommendation from this work is the recognising the role of social capital in economic analysis and institutional examination. Traditionally, this is considered the domain of sociologists, anthropologists, philosophers and the humanities, generally. Institutional economics pays greater homage to social capital and gives credence to its value as a vital factor and economic resource that shapes the economic environment, covertly safeguards economic activity, induces economic order, and imbues a kind of economic spirit and style. Young economies and democracies like South Africa often lack sufficient levels of social capital or fail to translate social capital into an economic resource. Densely networked expatriate communities, itinerant entrepreneurs, entrepreneurial ethnic minorities, and so forth appear better at utilising social capital amongst themselves. This is more difficult in between ethnic groups especially in South Africa where the socio-political history has caused a severe erosion of social capital. Hence, more work on social capital will not only serve in understanding and enhancing its value in economic activity but also in dealing with manifestations negative elements from an exploitative past to create a better economic future.

7.8.4 The Embeddedness of Institutions

Similar to social capital, institutional embeddedness can have profound effect on economic activity as seen in the case of worker equity schemes as well as fresh produce markets. Embeddedness usually evolves over very long periods and hard be change over the short term. It acts as a form of institutional lethargy or resilience to factors perceived as foreign like an immune system. On the other hand, it facilitates the functioning of factors that are familiar through positive association and constrains the functioning of factors that are familiar through negative association. Hence, embeddedness is vital to the nature of institutions and aids in explaining the rationality of institutional behaviour. Economic research too often assumes certain rationality (e.g. neo classics) premised on strict assumptions and conditionalities that ignores embeddedness and may lead to misinterpretations. This was observed in the case of mussels where small growers and franchising was found the most efficient organisational form, but the industry to this day remains slow to adapt to this form. Similarly, fresh produce markets are based on agency based commission sales systems and remain resilient to adapt to more efficient wholesaling systems as observed through direct sales and the development of similar markets across the world. Workers equity schemes are embedded on a long history of problematic race relations, slavery and paternalism. This is partly the reason for prefer equity schemes with workers a opposed to empowering new entrepreneurs through more appropriate organisational forms in a democratised environment.

7.8.5 Institutional Design and Business Models

The thesis primarily aimed to identify business models that are suited to various institutional circumstances. Those contended with include contract farming, franchising, small-scale farming (*per se*), vertically integrated firms, equity partnerships, and agency systems. Different institutional circumstances would generate further models and would enrich this area of study and the choices available to the business environment as well as those engaged in institutional design. Further studies could look into the appropriateness of given models under particular circumstances or the design of new models given a thorough understanding of the institutional circumstances. This is particularly relevant in developing economies where new business models as continuously sought that resemble greater equity, efficiency, social justice and moreover unleashing entrepreneurial talent.

7.8.6 Industrial Organisation in Agribusiness

The search for institutional models in developing economies is concomitant to the industrialisation of the agri-food chain, the gaining significance of the value chain, the power shift towards retailing, and the so-called disappearance of the traditional farm gate. Agricultural economists have developed sophisticated tools for analysis at farm level, but are not equally adept at analysing an industrialised value chain. The use of Structure-Conduct-Performance approaches and the conventional technical efficiency measures are rendered obsolete or blunt despite its obvious theoretical aptness. All the case studies have elements that are located beyond the farm gate where institutional economics were found useful in understanding and examining performance. In all the case studies the motivations underpinning firm size, inter-firm thresholds, intra-firm efficiency boundaries and associated risks were considered. However, this work is still rudimentary and requires further application to enhance its value and substance in the economics of agriculture and development.

7.8.7 The Evolution and Behaviour of Firms and Institutions

A key proposition of the research is that institutions should be viewed as continuously evolving entities as they operate under dynamic conditions. This view is distilled from the work of Schumpeter on constructive dynamism or creative destruction. The case studies are largely temporal since in three of the cases the firms are start-ups or early innovations. The fourth, fresh produce markets have a long institutional history to gauge institutional adaptation and dynamism against, which was found generally lacking. Further valuable research could include tracking institutional adaptation over time with changing circumstances to identify efficient adaptations. In addition, new institutions could be assessed in terms of its ability to evolve when conditions inevitably change and to enable proactive design interventions based on anticipated behaviour.

7.8.8 Empowerment

The economic advancement of previously disadvantaged people is a common imperative shared by all the case studies. This form of empowerment is seen as a process of enabling people to acquire and manage economic assets that they are not adequately prepared for, hence the need for enabling institutions, supporting environs and mechanisms. Each case study goes some way in this context, but further work is required to enrich this area that has gained much prominence in South Africa recently. Similarly, such work will remain equally relevant in future where tracking the performance of economic empowerment initiatives will be necessary to monitor opportunism, effectiveness and likely unintended consequences.

7.8.9 Law and Contracts

Institutional economics has found a natural extension into the area of law and contracts due to the emphasis on inter-firm relations, safeguarding transactions, property rights, agency, enforcement, etc. Agribusiness and the industrialised food economy have an obvious need for such insights and services. Future research would inevitably have to accommodate this discipline. It is interesting that several of the esteemed scholars in institutional economics, including Coase and Williamson have an academic footing in this domain.