

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

by

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An Institutional Economic Appraisal of Worker Equity Schemes in Agriculture: The Incomplete Contracts Approach to the Separation of Ownership and Control.

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Abstract

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, counterveillance over opportunism, and the distribution of residual claims and control. The first reason for incompleteness emanate 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.

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 in issue and the key role of the entrepreneur whose innovations advances growth (Dems etz, 2000). Arthur Lewis (1955) later gave further attention to the institutional factors in society that affect or determine 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 relate to the innovations occurring in firms and industries that enhances global competitiveness (Best, 1990; Porter, 1990).

In South Africa the debate on institutional innovation is largely fueled by the socio-political imperative to effect greater equity in the economy. This policy is further guided by a growth with equity strategy. For agriculture, this implied (*inter alia*) a focus on partnerships, contracts, joint ventures and the like. Agricultural workers were best positioned as a target group for empowerment given their prevailing human (vocational) capital. Farmworker Equity Schemes (FES) thus emerged similar to Employee Stock Ownership Plans (ESOP's) common in other industries. Whereas ESOPS's appear to have labour productivity gains as it key objective, FES also has empowerment objectives. In FES workers hold acquire 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 such 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.

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

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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 economist 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 & Barry, 2002) and others, clearly indicate the necessity of adding this type of analysis to the repertoire of methods/approaches.

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 resources' that increase with use and deplete 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 resolve 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 its 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 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.

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 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, and meant that 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 bargain power and gaining social capital given the lack of financial capital.

2.1.2. Power

It was stated that 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 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 reminds of Galbraith's theory of countervailing 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.

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'. Farmworkers 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 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.

2.2 Governance

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 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 & 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.

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.

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.

2.3 Marginal Conditions

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 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.

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 & 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 & von Thaden, 1994). In risky investment schemes, both are necessary.

3. Institutional Economic Appraisal

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 is adequately predicated on SC and whether the SC is likely to sustain the institution.

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. Its coincidence however, with political motives somewhat diminish 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 standards.

3.1.2. The Nature of SC 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 (3.1.1.). The engagement between workers and employers are 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. 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 render 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 decision and interfacing with management. Information asymmetries grow which lead 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 its merit as a genuinely evolving institution. This statement may be premature, given that little time has evolved by institutional standards.

3.1.3. Aligning Motives to SC

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.

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 anticipated given the accelerated industrialisation of agriculture. 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.

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 the worker constituent. 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 is not sustained, nevermind 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 fueled 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. The model appears consist 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 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.

Hart and Moore (1988) propose a timeline for analysing incomplete contracts and governance structures. This model is adapted to equity schemes in the figure below. 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.

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
Initial contract	Investment	1 st state of nature	Renegotiation	Delivery	Payment
<i>Ex ante period</i>		<i>Ex interim period</i>		<i>Ex post period</i>	
Landowner offer 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 Suspicious of opportunism Lack verifiability Asymmetric power No countervailing power Unproven residual claims		Dispersion of expectations Labour mobility Third party monitoring/enforcement Develop countervailing power Adapt grant mechanism Entrench residual claims Dynamic institutional evolution Include incentives for efficacy	

Adapted from Brousseau and Fares, 2000.

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.

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 dampened these incentives. Worker participation in operational, tactical and strategic decision-making occurred, but is reactive and limited by their ability to participate effectively at the higher levels. The process (participation) became compromised in favour of the product (management targets). Leading workers often clamour for greater management responsibility, which indicated 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.

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, counterveillance over opportunism, and the distribution of residual claims and control. The first reason for incompleteness emanate 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.

5. Recommendations

5.1 *Project selection* should favour the following:

- (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

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.

5.3 *Incentives*: Introduce *ex ante* incentives to enable appropriate *ex post* adaptation and control over residual rights. 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

- 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.
- 5.5 *Monitoring*: Third party monitoring is required to curtail opportunism, and provide mentoring.
- 5.6 *Government support*: Support should be more varied and flexible to adapt to circumstances initially and over time as the project evolves.
- 5.7 *Models*: Equity ventures are but one model and several other models should be sought and allowed to emerge from these schemes.

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