

Nicholson, Brian; Sahay, Sundeep

Working Paper

Institutionalisation, deinstitutionalisation and change: The context of policy change for software exports in Costa Rica

Manchester Business School Working Paper, No. 538

Provided in Cooperation with:

Manchester Business School, The University of Manchester

Suggested Citation: Nicholson, Brian; Sahay, Sundeep (2008) : Institutionalisation, deinstitutionalisation and change: The context of policy change for software exports in Costa Rica, Manchester Business School Working Paper, No. 538, The University of Manchester, Manchester Business School, Manchester

This Version is available at:

<https://hdl.handle.net/10419/50652>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

Working Paper Series

Institutionalisation, Deinstitutionalisation and Change: The Context of Policy Change for Software Exports in Costa Rica

Brian Nicholson
Sundeep Sahay

Manchester Business School Working Paper No. 538
February 2008

Manchester Business School

Copyright © 2008, Nicholson and Sahay. All rights reserved.
Do not quote or cite without permission from the author.

Manchester Business School
The University of Manchester
Booth Street West
Manchester M15 6PB

+44(0)161 306 1320
<http://www.mbs.ac.uk/research/working-papers/default.aspx>
ISSN 0954-7401

The working papers are produced by The University of Manchester - Manchester Business School and are to be circulated for discussion purposes only. Their contents should be considered to be preliminary. The papers are expected to be published in due course, in a revised form and should not be quoted without the authors' permission.

Author(s) and affiliation

Brian Nicholson

Accounting & Finance Division
Manchester Business School
Booth Street West
Manchester, M15 6PB
UK
Phone: +44 (0)161 275 4024
Fax : +44 (0)161 275 4023
E-Mail: brian.nicholson @mbs.ac.uk
Web : <http://www.mbs.ac.uk>

Sundeep Sahay

University of Oslo
Norway

Abstract

This paper addresses deinstitutionalisation from a longitudinal perspective. Drawing on the case of software exports policymaking in Costa Rica, it analyses persistence and change paying particular attention to formation of dissensus, understood as lack of unanimity on the value of an activity that is sufficient to destabilise institutional norms and activities. The role of cultural and political factors in deinstitutionalisation or persistence is considered. Based on the empirical data, a framework for understanding political and cultural dynamics in deinstitutionalisation is proposed.

How to quote or cite this document

Nicholson, Brian, & Sahay, Sundeep. (2008). Institutionalisation, Deinstitutionalisation and Change: The Context of Policy Change for Software Exports in Costa Rica. *Manchester Business School Working Paper, Number 538*, available: <http://www.mbs.ac.uk/research/working-papers.aspx>.

INSTITUTIONALISATION, DEINSTITUTIONALISATION AND CHANGE: THE CONTEXT OF POLICY CHANGE FOR SOFTWARE EXPORTS IN COSTA RICA

**Brian Nicholson, Manchester Business School, UK
Sundeep Sahay, University of Oslo, Norway.**

Abstract

This paper addresses deinstitutionalisation from a longitudinal perspective. Drawing on the case of software exports policymaking in Costa Rica, it analyses persistence and change paying particular attention to formation of dissensus, understood as lack of unanimity on the value of an activity that is sufficient to destabilise institutional norms and activities. The role of cultural and political factors in deinstitutionalisation or persistence is considered. Based on the empirical data, a framework for understanding political and cultural dynamics in deinstitutionalisation is proposed.

INTRODUCTION

Policy making and implementation necessarily involves the creation of new institutions, suppressing existing ones which may impede the new, and the reinstitutionalization of new policies. Institutional theory has emphasized the complexity of these change processes and provides us with conceptual tools to develop strong theoretical insights into the phenomenon of policy formulation. Applying theoretical insights into problems of practical significance, such as of policy making, is extremely important but often deemphasized by researchers. [Selznick \(1996\)](#), drawing inspiration from John Dewey (1938) wrote:

“Social science should be guided by problems of life and practice rather than by intellectually self-generated conceptions and techniques. To be truly scientific, the problems of social inquiry must grow out of actual social tensions, needs, troubles...”.([Selznick 1996, p 270](#))

The practical domain that we analyze in this paper concerns the domain of policy formulation for strengthening national software exports in the context of developing countries. This domain is seen by national governments and also international agencies like the World Bank as an urgent economic and social need, as it is increasingly being established that software industry development is an important enabler of national economic growth ([al-Jaghoub 2004, Heeks and Nicholson 2004, Kambhampati 2002](#)), especially for developing countries. The case of India is often taken as an exemplar in this regard, with the combined software development (IT) and IT Enabled Services (ITES): call centres, accounting services etc) sectors revenues accounting for \$36.3 billion during 2005-06, up from \$28.4 billion in 2004-05, reflecting a growth of 28 per cent (NASSCOM - National Association of Software

and Service Companies). This combined sector contributed 4.8 per cent to the national GDP in the financial year 2005-06, providing employment to more than one million people, and also created various beneficial demonstration effects to other sectors (Arora et al 2001, NASSCOM 2006). This spectacular economic and social growth has been taken as a source of inspiration in guiding policy initiatives in various emerging countries such as Jordan and Vietnam (Al-Jaghoub 2004, Carmel 2003, Duong 2004, Paus 2005).

Software industry growth in India and also in other countries, have been shaped by various policy initiatives (Kambhampati 2002, Ein Dor et al 1997), such as favourable tax exemptions in Vietnam (Duong 2004), the creation of Software Technology Parks in India (Arora et al 2001), catalyzing Foreign Direct Investments (FDIs) in Ireland, and venture capital support for military oriented software products in Israel (Heeks and Nicholson 2004, Catherine and Carmel, 2004). However, when countries try to emulate or replicate successful models and policies, the variations in institutional contexts are often not given due significance by both researchers and policy makers. For example, when the Indian software industry bloomed in the eighties, the phenomenon of offshoring was a new business area offering considerable first mover advantage. This is in contrast with the current situation where the marketplace is cluttered with both suppliers and buyers. The context of the military in Israel, a strong private sector in India, and the role of expatriates in Ireland, all provided very different institutional conditions which shaped policy and industry growth trajectories in the respective countries, and are thus difficult to replicate.

Researchers proposing policy frameworks are often guilty of marginalizing the consideration of institutional variations in time, place and cultural contexts. For example, the Software Exports Success Model (SESM) proposed by Heeks and Nicholson (2004) describes a set of factors which influence policy for software context such as infrastructure, human resources and others. However, while these factors are useful in sensitizing us to issues of importance, they do not consider the process of how such policy is to be formulated and implemented, and how this process mutually shapes and is shaped by the institutional context. Trying to replicate these models in different contexts is fraught with challenges, and often misleading.

To analyze more explicitly the context, process and their mutual linkages theoretically, we draw upon institutional theory. As Selznick (1996) has argued, institutional theory can play a significant role in this domain:

“The agenda (of institutional theory) should include the policy relevance of organizational and institutional theory. Concern for theory is an important source of intellectual discipline. It tells us, among other things, that we cannot be satisfied with a new idiom, or a new way of thinking, if it fails to take account of contexts and variations” (Selznick, 1996, p 277).

Institutional theory provides a range of approaches to analyze organizational processes, including around policy formulation and their implementation. An institutional theory lens on processes of organisational change offers distinct insights. For instance, the ‘logic of opposition’ described by Robey and Boudreau (1999) considers how opposing forces which advance or impede change enables explanation of contradictory outcomes. The convergent view of institutional development

emphasizes the unitary progress of institutions and their self regulation to steady state (Farjoun 2002). In contrast, the contested view opposes the convergent view's depiction of institutions as homogenous, passive and harmonious, and instead views institutional persistence as the outcome of the contest between those who want change and those who do not. Deinstitutionalization (Oliver 1992) seeks to explain both persistence and change, drawing on the contested view which focuses on conflict as a source of change. During institutional formation, which inevitably occurs in policy making, convergent forces may dominate latent divergent forces, which may subsequently may rise at the expense of convergent forces, and provide the impetus for deinstitutionalisation, implying the breaking down of existing institutions (Oliver 1992).

The aim of this paper is to examine how these processes of deinstitutionalization are shaped and unfold during the process of policy formulation and implementation in the specific context of the software exports sector in Costa Rica. The focus on deinstitutionalization is also in line with the authors' action research efforts to try and introduce change by giving new directions to the national software export policy efforts. The aim in this paper is thus more than just explain how stabilization continues, or explain why new policies are difficult to introduce, but also on how the existing conditions can be "deinstitutionalized;" and lead to the reinstitutionalization of new directions.

The paper is organised as follows: we begin with a theoretical discussion drawn from institutional theory focusing on how change is initiated and the unfolding of processes of deinstitutionalisation over time. This is followed by a description of the methodology and the research setting. We continue with the case analysis of the interplay of the processes of deinstitutionalisation and persistence, with a particular focus on the role of dissensus within and between subcultures. We end with our conclusions and contribution to theory and practice.

THEORETICAL PERSPECTIVE: INSTITUTIONAL THEORY AND CHANGE

Institutionalism is a theoretical strategy that features institutional theories and seeks to develop and apply them to the study of particular organizational processes (Jepperson 1991). Institutional theory has its formative roots in the social sciences, and represents one of the most robust sociological perspectives within organisational theory (Greenwood and Hinings 1996) and with extensive application in the domain of information systems research. While new institutionalism consciously seeks to differentiate itself from the old (Greenwood and Hinings 1996), these differences are contested (see Selznick 1996). This effort to "shift" in focus has come as a result of criticism of old institutional theory being too focused on the macro normative and regulative structures (Scott 2001) and its bias towards explaining stability of institutions rather than on how they may change. While old institutional theory was concerned with issues of power, influence, coalitions, and competing values (Selznick, 1949, 1957), new (or neo) institutionalism places stronger emphasis on cognitive aspects of institutions, issues of legitimacy, embeddedness of organizational fields, and the centrality of classification, routines, scripts, and schema (DiMaggio & Powell, 1991; Meyer & Rowan, 1977, Scott 2001). In this paper, we focus on the

strand of new institutional theory, especially concepts that help us to explore the dynamics of organizational change processes, including the role of norms, symbols, myths, belief systems, and informal arrangements that influence organization culture in addition to the formal rules.

In the first of the following two sub-sections, we briefly discuss how institutional theory has been applied in IS research, and identify some dominant themes in this work, especially related to the question of understanding organizational change processes. In the second, we present our theoretical perspective based on the concept of deinstitutionalization, which we will draw upon to understand our empirical material.

An Overview of Institutional Theory and its Application in IS Research

Institutional analysis is increasingly receiving acceptance as a valuable theoretical lens in relation to understanding information systems related processes (e.g. [Avgerou 2000, 2002](#), [King et al 1994](#), [Noir and Walsham 2007](#) [Orlikowski and Barley 2001](#), [Silva and Figueroa 2002](#)). In essence, institutional analysis examines how broad social and historical forces, ranging from explicit laws to implicit cultural understandings, affect and are affected by the actions of individuals and organizations ([Orlikowski and Barley p153](#)).

[Avgerou \(2002\)](#), in her influential analysis of institutional theory in information systems research clearly emphasizes the inter-linkages between organizations through the concept of a diverse *organisational field* ([Scott 2001](#); [DiMaggio and Powell 1983](#)). The ‘organisation field’, sector, niche, or market enables an exploration of the role of the multiple actors and their associated institutions with respect to a common phenomenon, for example in our case of policy making. [DiMaggio and Powell \(1983:43\)](#) define the organizational field as "those organizations that, in the aggregate, constitute a recognized area of institutional life: key suppliers, resource and product consumers, regulatory agencies, and other organizations that produce similar services or products". The notion of field connotes the existence of a community of organizations that partakes of a common meaning system, usually under equivalent regulatory systems, and whose participants interact more frequently and fatefully with one another than with actors outside of the field ([Scott 1994: 207-8](#)). The organisation field concept is integral to *institutional isomorphism* that characterizes organizations within fields, and their tendency towards homogeneity through the adoption of similar practices, policies and techniques driven by the search for resources, legitimacy and political power.

Although there has been significant usage of institutional theory in IS research, the dominant focus in empirical studies has been explaining the regulative aspects of institutions and their role in institutional persistence, rather than on the understanding of deinstitutionalization and contested change. This focus is typified in an article titled on “becoming part of the furniture” ([Silva and Backhouse 1997](#)). Here the authors focus on the institutionalisation processes by which information systems become legitimate, unremarkable tools that people take for granted until a breakdown occurs. The early contribution of [King et al. \(1994\)](#) into institutional impact on innovation has been used in many subsequent studies such as [Silva and Figueroa \(2002\)](#) that focuses on policymaking for ICT adoption in Chile. King’s framework is derived from a

definition of institutions as ‘any standing entity that exerts influence and regulation over other social entities’. This emphasizes the regulative aspect of institutions (government authorities, international agencies, trade associations) over innovation as opposed to understanding contested change in the institutions themselves.

There is some, albeit a limited amount, of literature in the use of institutional theory in IS that addresses the issue of change. Robey and Boudreau (1999) while acknowledging the ‘logic of opposition’ of institutional persistence and change embraced by new institutionalists (Oliver 1992), argue that the dominant presentation of institutional theory emphasizes persistence. They write: ‘a researcher guided by institutional theory should be impressed by the difficulty of changing institutionalized practices’ (p177). In another study, Robey and Holmstrom (2001) draw on institutional theory and organizational politics to examine a case study of development and use of information technology to support the governance process in the municipal organization of Umea, Sweden. Employing a dialectic approach, the authors examine forces promoting and opposing social change. .

Recent developments in new institutional theory provide us with theoretical concepts to examine processes of radical institutional change, which have relevance for information systems researchers. For example, institutional entrepreneurship (Hardy et al 2007) examines the dilemma of how actors embedded in existing institutional routines can serve as entrepreneurs of change. North’s (1990) work in economics with its focus on the analysis of the interplay between the formal and informal institutions helps to understand why formal change efforts may succeed or not. The notion of contradictions arising from the often conflicting influences within the organizational field (Avgerou 2002) can also serve as an important theoretical mechanism to understand the potential for change. Similarly, the theoretical concept of deinstitutionalisation (Oliver 1992) seeks to understand processes of how existing institutions break down with implications for the reinstitutionalization of new ones. In the next section, we outline our theoretical perspective which is based on this core concept of deinstitutionalization.

Conceptual Framework: Deinstitutionalisation and Change, the Context of Policy in a Developing Country

Jepperson, (1991) identifies four major types of institutional change: institutional formation, institutional development, deinstitutionalization, and re-institutionalization. Institutional formation represents an exit from social entropy, or from non productive behavioural patterns. Institutional development represents institutional continuation rather than exit. Deinstitutionalization represents an exit from institutionalization, and “takes place when established meanings and action in an organization are discredited, either as a result of competing meanings and actions or because they are seen as falling to contribute to the institutional *raison d`être*” (Avgerou, 2002. p.37). Reinstitutionalisation represents exit from one institutionalisation and entry into another organised around different principles or rules, in essence, the displacement of old institutions by new ones.

The concept of deinstitutionalization is relevant for our analysis given that our focus is on attempts to create new policy to support software exports in a context where such a export focus was previously largely absent and the dominant existing

institutions concerned domestic growth. The following description of deinstitutionalization by [Oliver \(1992\)](#) helps to position our analytical focus:

“the process by which the legitimacy of an established or institutionalized organizational practice erodes or discontinues. Specifically, deinstitutionalization refers to the delegitimation of an established organizational practice or procedure as a result of organizational challenges to or the failure of organizations to reproduce previously legitimated or taken-for-granted organizational actions” (Oliver, 1992, p564)

For Oliver (1992), the process of deinstitutionalisation involves an erosion, deterioration and eventual discontinuity in the acceptance and use of a particular institutionalized practice. This erosion takes place due to political, functional and social pressures, conceptualized as the ‘antecedents of deinstitutionalisation.’ The antecedents of deinstitutionalization offer a distinct theoretical position to other institutional theories dealing with change as they help identify both organizational and environmental pressures of deinstitutionalization. Such an analytical view is compatible with our action research efforts to introduce new policies to support policy for supporting software exports in Costa Rica.

Institutional development and change occurs due to political pressures because institutions are contested reflecting a response to the underlying dissensus which exists. Oliver describes the role of political dissensus in deinstitutionalization as follows:

“Since consensus or reciprocal typifications among actors on the meaning, value and validity of an organisational form or activity is a fundamental condition of ongoing conformity to institutional practices ([Berger and Luckmann 1967](#); [Meyer and Rowan 1977](#); [Scott 1987](#)), the development of political dissensus or conflicting interests that disrupt the unanimity of agreement among organisational members on the value of a particular practice will be a critical antecedent to deinstitutionalisation” (p569)

Deinstitutionalisation involves the commitment of resources and conflict between those who want change and those who do not. Institutions are maintained only as long as integrative forces counteract disintegration. Actors behave consistently in pursuing their interests seeking to survive and prosper and adapt to changing circumstances. While convergent forces such as actors’ interests, functional utility and supporting institutions create and sustain the institution, opposing divergent forces challenge them, representing a dialectic interplay leading to persistence or change ([Farjoun 2002](#)). For example, within an organisation, political pressures of deinstitutionalisation such as performance crisis may erode institutionalized activities creating the potential for heightened internal conflict and breakdown of shared interpretations of appropriate behaviour ([Oliver 1992](#)). Such a crisis may also cause norms of cooperation to move towards self interested gains and individual protection, which may challenge the interests of existing stakeholders. These internal organizational dynamics may be also influenced by environmental conditions, such as if current performance is seen to be inadequate relative to competitors.

Functional pressures of deinstitutionalisation may be the consequence of changes to the perceived utility or technical instrumentality of practices on economic grounds and for reasons of accommodating varying political interests and changing environmental conditions, such as the introduction of new occupational safety guidelines or reductions in lunch hours. Social pressures for deinstitutionalisation arise with normative fragmentation and the breakdown of cultural unanimity in shared meanings and practices. This is caused by various social pressures including greater diversity, mergers; high turnover or new leaders leading to loss of cultural consensus and the creation of new norms and practices. Such disruptions call attention of organisational participants and exert social pressures on the organization to redefine its formal and informal institutions. The State through new laws (example for safety and pollution) can also create pressure and new demands for deinstitutionalizing existing practices.

Deinstitutionalisation thus occurs from changing structures and interactions of an organization and its practices with both various pressures internally and externally from the members of the organizational field. These pressures can be mediated by various other conditions such as geographical dispersal of the organization or the specificity of the historical context.

Various authors have explicitly and implicitly drawn upon the concept of deinstitutionalization to analyze change processes, specifically the conditions, external and internal, that constrain or enable deinstitutionalisation. [Chizema and Buck \(2006\)](#), in their analysis of the “Americanization of German executive pay” describe how the degree of embeddedness (for example, arising from the dependence of German firms on American capital) influences the processes of deinstitutionalization. [Roberts and Greenwood \(1997\)](#) integrate institutional and transaction cost theories to demonstrate cognitive constraints and institutional influences in the generation of a constrained efficiency seeking approach. [Erakovic and Powel \(2006\)](#) describe how transitions in ownership provide the potential for deinstitutionalization within the context of privatized companies in New Zealand. [Windels and Christiaens \(2006\)](#) examine how external events serve as sources of deinstitutionalization, such as the adoption of new management institutions in the Flemish Public Centres of Social Welfare. Furthermore, they argue that the uptake of these new institutions is mediated by the implementation bottlenecks experienced in particular local organizations. [Rorrer \(2006\)](#) describes how organizations negotiate conflict that emerges when there are attempts to de-legitimize inequity and create equitable access and outcomes for children. The author draws upon the notion of innovative familiarity to analyze how organizations negotiate the legitimacy of new reform efforts within negotiated margins of tolerance. [Koene \(2006\)](#) examines the interplay between the elements of societal confidence, power, and discretion to shape the dynamics of new field development. The author focuses on the dialectical nature of interactions between institutionalizing and deinstitutionalizing forces with implications for the new.

In our adoption of the theory of deinstitutionalization, we seek to analyze both external and internal conditions that can trigger deinstitutionalisation processes in the context of national policy related to software exports in Costa Rica. We draw on a key idea from Oliver (1992) concerning the degree of political *dissensus* understood as lack of unanimity amongst stakeholders within the organizational field that can

destabilise existing institutional norms and activities. Oliver (1992) posed the following question as a challenge for future researchers:

“if institutionalized activities are behaviours that reflect 'common understandings' of legitimate behaviour what degree of consensus is enough to sustain an institutionalized practice?” (p581)

Specifically, Oliver calls for research linking deinstitutionalization to concepts of culture as shared meaning, shared understanding and shared sense-making which we use to strengthen our analysis of the degree of consensus necessary to prevent the erosion of institutionalized practices. Calling explicitly for a political-cultural analysis, Oliver argues:

“organizations often possess 'competing value systems that create a mosaic of organizational realities rather than a uniform corporate culture' (Morgan 1986: 127). A political-cultural analysis of institutionalized activities may help to determine how dissensus creates institutional adjustments or erosion, and how negotiation processes may create consensual perceptions” (p 582)

Culture analysis has a long history of inclusion in IS research (Leidner 2006), including in the context of institutional analysis (Noir and Walsham 2007), with the potential to deepen our understanding of the sources of dissensus. Culture is pertinent to the continuation or not of shared meanings, sense making and routines of behaviour (Rodrigues 2006), and the maintenance of the legitimacy of an institution by it being perceived as being socially desirable and acceptable. Rodrigues' (2006) analysis of subcultures provides a useful avenue to incorporate a cultural perspective in our understanding of dissensus and their contribution to deinstitutionalization. Rodrigues argues that subcultures mediate and protect the interests of their members and adherents who can form alliances to further advance their interests. For instance, a subculture can become a dominant culture and subsequently be advanced as an organisation's corporate culture. A subculture may become a counterculture and be used as a political tactic to oppose and undermine competing subcultures. In contrast to the widely popular work of Hofstede (1980) who emphasized homogeneity in “mapping” the “national cultural characteristics” of a given country, the sub-culture approach emphasizes heterogeneity and the inherent contradictions and sources of dissensus. The sub-culture approach supports Westrup's (2003) argument of cultures being continuously negotiated and redefined over time, and also Sahay and Walsham (1997) structurational analysis of human agency as being simultaneously situated in various sub cultures concerning educational, religious, familial, and legal structures. Westrup's and also Sahay and Walsham's arguments helps to understand the often contradictory and negotiated nature of human agency within apparently homogeneous cultural contexts.

In summary, our conceptual framework is focussed on understanding the sources of dissensus and its interplay with processes of deinstitutionalisation, as explained through a political cultural lens. On one hand, there are the existing institutions which in our case concern the current focus on domestic software growth in Costa Rica. On the other hand, external conditions such as arising from globalization, aid policies of international agencies like the World Bank and published successes of countries like India in software exports, help to provide deinstitutionalizing conditions that

challenge the existing institutions. The degree to which these deinstitutionalizing conditions can lead to change or not, we argue is mediated by internal and external sources and degree of dissensus. For example, adequate momentum for change built up within the relevant stakeholders could allow counter subcultures to challenge and destabilize the dominant coalitions. This interplay, we analyze through a cultural-political lens. Our theoretical framework is schematically depicted in figure 1 below.

Insert figure 1 here

METHODOLOGY

Our practical engagement was informed by the action research approach suggested by Peter Checkland and colleagues ([Checkland and Holwell 1998](#)). Checkland's seminal contribution to action research in information systems is reflected in Figure 2 which serves as a useful basis to inform information systems action research studies. Checkland argues for action research to be preceded with an explicit statement of the researchers' epistemological position and including the framework of ideas (F), methodology (M) adopted in the area of application (A). Such a process, Checkland and Holwell argue, strengthens the recoverability of action research, described as follows:

“Our argument here is that the aim of Action Research should be to enact a process based on a declared in advance methodology (encompassing a particular framework of ideas) in such a way that the process is recoverable by anyone interested in subjecting the research to critical scrutiny”. (p18)

Insert figure 2 here

Thus, action researchers should declare the epistemology, thought processes and models which enable the team to make their interpretations and draw their conclusions. Our epistemological position is that of interpretivism (Walsham 1995). Our empirical approach and thought processes were inspired by Checkland's Soft Systems Methodology ([Checkland and Scholes 1990](#)) which began with developing a rich picture of the problem domain including the various stakeholders involved, their interests, and enabling joint efforts to create new institutions. As Checkland emphasizes, we viewed policy formulation as an ongoing, continuous and iterative process that was not linear or with clear start and end dates. In our case, the cyclical nature of the process was reflected in the manner which the inputs provided by the task groups (which we had established to enable the process) helped to revise the policy directions, and also helped to create a stronger sense of ownership of the process by the people who were responsible for its creation. We operationalized this approach by creating joint task forces for specific tasks, such as one to further the creation of university-industry linkages to firstly identify what are the existing institutions that impede such linkages and how may these be strengthened. As previously stated, our overall research strategy was guided by an interpretivist tradition which helped to acknowledge the different interests and perceptions that stakeholders had towards software exports, and tried to focus on developing mechanisms (such as joint task forces) to enable inter-subjective understandings. Practically, we tried to understand the underlying “weltenshauung” of sub-cultures

towards software exports, for example how the national agency responsible for developing foreign direct investment (CINDE) tried to attract large multinational corporations (such as Intel and HP) which conflicted with the interest of the software association (Caprosoft) which was primarily constituted by small players who felt they would be damaged by the large global players (for example, by them pulling away the cream of the national software talent pool).

Specifically, our approach can be described to include three sequential phases of situation analysis, the initiation of the policy development and evaluation. Situation analysis began in 2002 when both the authors visited San Jose and started a process of meeting the various stakeholders, along with two local partners who were the representatives of Costa Rica's Inter American Development Bank funded software industry development organisation 'Prosoftware,' and 'Cegesti', a San Jose based not-for-profit organisation. While these local partners helped to identify key actors, we conducted a stakeholder analysis through interviews and focus groups. This analysis was initially informed by the various dimensions of the Software Exports Success Model (SESM) (Heeks and Nicholson 2004), including national policy, education, infrastructure and international demand. This model helped to map out the relevant organisational field, for example by identifying university computer science departments, private software companies, and the Minister for Science and Technology as relevant stakeholders. Subsequent interviews with them, joint focus groups and a national level workshop (see table below for a summary of our data collection activities) helped us to create a rich picture which reflected our understanding of their interests and perceptions, and provide insights on the challenges and opportunities to develop inter-subjective understanding around policy for software exports. Rich pictures are generated to represent structures, processes and issues of the organisation which could be relevant to the problem definition, and to try to give an impression of the organisational climate. Rich pictures are usually, but not exclusively, a mixture of text and graphics and are intended to give an easily intelligible image of the organisation and the major issues involved. The production of a rich picture is not the purpose of soft systems methodology but can be viewed as a by-product of the process of investigation (Checkland and Scholes 1990).

The two focus group sessions with representatives from the private sector and the other with university staff were held on focused issues like university-private sector linkages, and problems experienced by SMEs. In addition, one large national level workshop was held on the topic of global trends in the software sector. This workshop provided the platform to bring together various stakeholders from the industry, government and university sectors in order to provide a broader awareness and buy in of the strategy formulation process.

Insert table 1 here

We provide a schematic of the rich picture in the figure below.

Insert figure 3 here

The rich picture and accompanying written analysis of strengths, weaknesses, opportunities and threats facing the industry helped to trace the interlinkages between the various stakeholders in the organisational field. We subsequently moved to the phase of initiation of policy development. The primary mechanism for this was the

creation of task forces comprising of joint teams from the different stakeholder groups. Although six potential groups were identified, the following four task force groups were created in 2003 for reasons of exigency:

- Marketing, Inter Sectoral Linkages, Marketing And Foreign Direct Investment
- Defining A New Organization For Software Exports
- University-Private Sector Linkages
- Capital And Financing¹

The creation of the task force groups was our specific intervention to create formal and informal cross-cutting structures to enable the taking of ownership and responsibility of the processes to further analyse problematic issues, the design and implementation of the software exports strategy. As specific resources to help in these tasks, the groups were provided with the authors' situation analysis from the first phase, and a set of models and best practices as adopted in other countries. In an attempt to make the process more objective, we also developed performance indicators for each group to try and trace the progress of the process. In the Appendix we provide examples of some of the goals provided for one of the task forces and the table of contents of the report which contained resources of relevance to the groups and was given to all members. The working of the task group was facilitated by us and the local partners by providing resources in the form of experiences and learning from other countries on how they have tried to address similar issues, summarised in table 2.

Insert table 2 here

For example, detail on the Israeli case was provided and how they created the Yozma programme to provide a pool of funds to foster research jointly through the private sector and universities. The idea behind providing these resources was to encourage this effort in Costa Rica to learn from other global experiences, and also to discuss internally on the relevance or not of these best practices and how could they could be adapted locally. Problematic themes and issues derived from the situation analysis and rich picture formed the basis for defining the initial goals of the task force group, and the resources helped in guiding the creation of practical tactics for facilitating software exports. The task force group members, formed from a stakeholder analysis of relevant individuals and organisations were encouraged to freely state the problems and constraints with respect to their problem areas, to debate them, and seek to develop consensus on practical and feasible approaches to an action plan. The working of the task group was facilitated by ourselves and Cegesti who mediated some of the task force meetings, provided additional resources when needed, and sometime intervening to smooth out potentially conflicting situations.

During the evaluation phase (conducted in mid 2005 and early 2006), we sought to understand how the implementation of the national policy had proceeded with respect to initial goals, and what unexpected events had occurred. This evaluation was carried out primarily through four audio conferencing calls with key stakeholders and one visit to San Jose by one of the authors. The audio conferencing calls were facilitated by Cegesti who set up the schedules for the calls. In these phone calls, we asked

¹ See the CAMTIC website http://www.camtic.org/EN/estrategia_nacional_tic/estrategia_en_breve/

respondents to historically reconstruct events since 2003 and describe the challenges they experienced, how they have dealt with it, and their plans for the next steps. This evaluation process was furthered when one of the authors returned to Costa Rica in March 2006 to present at a software industry conference, part of which was dedicated to reflection on progress with the software export promotion policy. This visit helped update us on events by attendance at the conference which included reviews and evaluations of the industry by several speakers, and through 6 formal interviews and various informal meetings with key stakeholders in the industry.

Through the different phases of the research, most of the meetings, workshops and interviews were conducted in English and when respondents preferred Spanish, a local translator was used. Interviews were recorded and transcribed by professional translators. During the national level workshop and one of the smaller workshops, professional simultaneous translation was provided. We maintained our own field notes and summaries of the meetings and workshops were provided by Cegesti if they were not recorded. In addition to these primary sources of data collection, various secondary data sources were analyzed, including industry reports, organization brochures and websites, and industry statistics. The two authors exchanged their respective notes, and had frequent discussions either over phone or face to face.

Data analysis during situation analysis involved a process of extensive discussion between the authors and the various stakeholders, our feedback to them on our interpretations and their responses to this. This process contributed to the creation of a report which was presented in 2003 to Prosoftware, and served as the foundation to guide the entire process including the establishment of broad directions and to be used as a reference document by the task force groups.

Analysis during the evaluation phase evolved and was shaped by various academic papers presented at conferences and the feedback received by reviewers and the audience. These papers helped to identify and explore alternative approaches to the theorisation of data, including Oliver's (1992) work on deinstitutionalization which provides the theoretical basis for the case analysis.

CASE STUDY AND ANALYSIS

The Costa Rican Software Industry

The Costa Rican software sector gained significant global publicity when the IT giant Intel established a development unit in San Jose, enabled through the direct involvement of the Costa Rican President ([Ketelhoehn and Porter 2002](#)). According to CAMTIC (2005) market research, in 2005 there were 150 software development companies, 91% of these are micro, small and medium sized. Applications "for and about the Internet" and "administration and engineering" were the prominent application domains. In 2005, the sector reported revenues of US\$173 million and employed 4800 staff. Figures in 2005 showed a reduction over the previous year in production and banking software and an increase in customized application development. Thirty percent of the software production is exported, including \$71million to Central America (reduced from 60% in 2004 to 40% in 2005), and exports to USA rising from 13.3% in 2004 to 22% in 2005.

Analysis

Relevant organizational field

The organisational field (outlined in table 3 below), includes a range of heterogeneous actors ranging from the Minister of Science and Technology, to university researchers and faculty, international aid agencies and also local banks and venture capital firms, private sector IT firms, and various government agencies responsible for different activities such as export promotion, strengthening FDIs, telecommunication services. We as researchers and facilitators of this process could also be described as relevant actors of this field.

Insert table 3 here

In Table 4, we provide an overview of our institutional analysis, including a description of relevant actors in the organisation field and our interpretation of the formal and informal rules that were the governing institutions. We elaborate on what we saw as two key organisations and their institutions: the national software industry association (CAPROSOFT), which was positioned as the key agent for change; and, CINDE, the agency responsible for promoting FDI investments in Costa Rica, including in the software sector. Before this discussion we first describe the relevant organizational field.

Insert table 4 here

After this brief overview of the actors involved, we discuss in detail the dissensus we identified and how they provided both the challenge and potential for deinstitutionalization.

CAPROSOFT: Agent of deinstitutionalisation and/or persistence?

Caprosoft comprised of members who owned software development firms, large and small, in Costa Rica. Interestingly, firms providing call centre and other ITES were denied permission to enter this association which was positioned only for software development firms. There was an inherent unwillingness to change amongst some of the Caprosoft members, even though the sponsors of the programme (IADB) had identified Caprosoft as the key change agent with respect to creating software export policy. There was thus a dominant sub-culture within Caprosoft comprised of owners of the relatively large software firms who promoted the status quo of focusing on domestic markets where they held positions of strength. The role of Caprosoft for this subculture was perceived mainly as social networking akin to a 'wine drinking club'. However, there was a simmering underlying dissensus amongst some of the other members, typically owners of the smaller firms, who saw engaging in software exports as a way to create a level playing field and expand. Through our action research efforts, we tried to bring forth this dissensus and make it more visible, and then create sufficient momentum which could lead to the creation of a more powerful subculture, which subsequently could lead to deinstitutionalization of the dominant institution of favouring a domestic rather than export focus. We further elaborate on this process.

The IADB funding for strategic software exports planning in Costa Rica designated Caprosoft as the agent for change in the strategy process. A key recommendation of the strategy task force group examining the role of Caprosoft was the creation of a new organisation with a wider formal constitution to include both the local and foreign activities of the software industry, as opposed to its currently primarily local mandate, and also to open membership to ITES providers (call centres and BPOs) as the Indian example (of NASSCOM) emphasized the benefits of such an extended focus. NASSCOM through its broader and stronger membership has helped to develop a powerful lobby with the Indian government for more benefits to the industry, a condition which Caprosoft wanted to also emulate.

This endogenous pressure conveyed through us by the resources provided to the task force members was initially countered by the socially conditioned “wine drinking club culture” of Caprosoft members who had limited motivation or the recognition for the need for change, and preferred the status quo. These were large software players and constituted a dominant subculture in which they perceived themselves as “big fish in a small pond” which represented for them a stable (not growing) market and a ticket to a comfortable lifestyle. They did not see international expansion into a strongly competitive market to be critical to their survival, and to the contrary was perceived as a threat which could even undermine their comfortable existence. The shared sense making of this subculture was reinforced by broader cultural characteristics in Costa Rican society, described to us by a venture capital financier as follows: :

“Here (in Costa Rica) people will be happy to earn a good salary, have a nice car, a nice house, have their children in a good school and owning 100% of their companies. And that’s it. So there is a limited level of preference of risk taking or ambition”.

In response to the initial attempts by us and the task force group to broaden the mandate of the association membership to include export focussed ITES firms and potentially create a counter-culture, the existing dominant ‘wine drinking club’ subculture vetoed this move. They sought political legitimacy to their veto decision by expressing cynicism over the IADB financial aid strategy describing it as a legacy of USA’s historical attempts to control (both through means of politics and violence) several of the Central and Latin American countries such as in neighbouring Honduras, Nicaragua, Panama, Cuba and El-Salvador. The effects of such criticisms of subversively creating institutional structures representing “American imperialism,” was reflected in the poor uptake of IADB funded free training programs on ISO9001 training and accreditation.

The task force thus were confronted with the difficult situation of creating dissensus amongst a group which were dominant, preferred the status quo, and who at the same time was responsible for creation of change. Efforts to change were further impeded by the cultural tendency amongst Costa Ricans to ‘avoid offending each other’ because of the small size of the country ‘where there was always the distinct possibility of meeting someone where you may need a favour in return.. This cultural tendency, as described by [Biesanz et al, 1998](#) could be seen to prevent the task force groups to clear and decisive action in the fear of offending some one and resulting negative future action:

“In their relations with others, Ticos² want above all to “Quedar bien” – to get along and make a good impression in an encounter, to appear amiable. It is easier to promise to do something *ahoria* (in a little while) or *manana* and thus avoid possible friction at the moment than it is to tell someone that it cannot be done soon or perhaps ever”. (p8)

“Decision making *al la tica* means constant bargaining in an effort to avoid conflict, even though the problem may not really be resolved. Decisions are postponed indefinitely and once made which may never be implemented. A common term or phrase in Costa Rica for this is *palanganeo* evoking an image of riding the waves unsteadily in a palangana or basin tilting from side to side, getting nowhere”. (p7)

This point was further explained by a senior Caprosoft member who told us:

“Costa Rica is so small. It's so small that nobody can take the luxury of confronting anybody, because in no time you will meet again, in other circumstances, most likely the situation will be the other way around. So when you come to live here, you want no enemies. Confrontation is just not worth it....so people prefer to manage relationships”.

This general dislike for confrontation is reinforced in the Costa Rican constitution which abolished its army in 1949, and established the reputation of a peaceful country. President Oscar Arias was awarded the Nobel peace prize for his role in ending the wars in El-Salvador and Nicaragua, and Costa Rican is seen as a peaceful haven within a relatively violent Central American neighbourhood. Furthermore, the dependence of the national economy on tourism also provides an economic rationale of maintaining a peaceful environment, and people boast that their President can mingle freely without security within a crowd. These societal predilections can be interpreted to provide additional convergent forces to sustain the status quo within Caprosoft. .

Over time, a counter culture started to emerge led by key individuals who were promoted to the board of Caprosoft in 2005. These three individuals who were directors of three Costa Rican firms, were North American and Costa Rican expatriates with pre-existing operations in North America. These three individuals soon took on a crucial role in generating dissensus amongst the broader Caprosoft membership for expanding their mandate for membership. Matters reached a tipping point when at a crucial meeting in 2005, in line with recommendations from the task force, Caprosoft's formal rules and constitution were eventually rewritten to include the ITES call centres and back office processing firms. In line with this revised mandate, the organisation was renamed as Cámara Costarricense de Tecnología de Información y Comunicación (CAMTIC) in 2005. As a response to these changes, some of the original members constituting the earlier dominant wine drinking club sub-culture, resigned from the new organization, creating further opportunities for deinstitutionalization.

² Colloquial term for Costa Ricans.

In summary, it can be said that the forces of deinstitutionalization relating to the dismantling of the existing Caprosoft structure came from both external and internal sources. Externally, the IADB funding initiated this process of change, which was furthered by us creating the task force groups and providing resources and arguments that urged for a change. Internally, the dissensus of the smaller players and the excluded ITES sector found a platform to voice their concerns in these developments. The power to formalize this dissensus came from the promotion of key individuals to the board of directors, who had personal interests in strengthening the export focus of the industry. Finally, the resignation of some of the 'old guard' from the association provided the potential to reinforce these processes of deinstitutionalization, and reinstitutionalize a revised mandate favouring exports and a broader mandate including ITES related firms. Through this, the existing contradiction in the role of Caprosoft of trying to initiate change while still wanting to maintain their existing interests, could be seen to be resolved, at least for the present.

CINDE: Promoting institutional persistence within weak context for change

A key organisational actor in development of the software industry and exports was CINDE, whose formal mandate was to promote foreign direct investment (FDI) into Costa Rica. In the resources provided by us to the relevant task force group, we had emphasized how the strategy of promoting growth of the software industry with targeted FDI had been crucial in the case of Ireland (O'Riain 1997). In India too, attracting Texas Instruments and Motorola, the first firm to reach Capability Maturity Model level 5, had demonstration effects in encouraging further foreign firms to set up similar operations. These processes had contributed to spawn a whole new generation of entrepreneurs in India, and to help challenge existing institutional structures which previously were dominated primarily by family owned businesses. The high level political involvement of the national president in getting Intel to set up in Costa Rica, was seen as one of the success stories of this FDI driven strategy within CINDE.

In Costa Rica the process of encouraging FDI was problematic for at least two reasons. One, it was uncoordinated and the local industry was seen to be excluded in the process of decision making on which foreign firms should be invited or not. We heard complaints from many of the local software firms, including the senior Caprosoft directors, that they were not even aware of certain attempts to invite foreign software industry players. These negative perceptions were based on the unilateral role that respondents felt that CINDE had played in the Intel case. It was thus difficult to implement an early recommendation of one of the task force groups to change the formal mandate of CINDE so that their FDI promotion efforts would also respect the growth needs of the local firms, such as by inviting their representatives to be part of decisions in formalizing FDI investments. While some of this exclusion could have been deliberate, it also reflected poor planning and contradiction. This dislike of formal planning in Costa Rica (Biesanz et al 1998), is also seen to be reinforced by the tendency to promote individualistic rather than group oriented behaviour. Biesanz et al describe the use of the phrase "Mmmmmimporata a mi?" (what does it matter to me?) in common Costa Rican parlance in order to shrug off responsibility and justify lack of involvement with broader social issues, and also reflecting a tendency towards distrust of others. Further, they write:

“Rather than join with others to demand better bus services, Costa Ricans would be more likely to buy a car or motorcycle. Rather than cooperate with neighbours to prevent burglaries, there is a more generalised tendency to hire private security and buy guns” (p287).

The second reason was more structural dealing with the small size of the local firms as contrasted with the large size of the typical global FDI player. Based on higher salaries and the glamour of the MNC image, Intel was able to recruit trained software staff from local firms. The relatively small size of the Costa Rican national pool of software staff contributed to magnify the negative effects of Intel’s entry. This structural condition of size was also reflected in the smaller size of IT graduates coming out from the local universities, which served to magnify the adverse effects of a “local brain drain” from local firms to MNCs. We were given an example of the effects of size when Boeing wanted to set up a technical help line call centre operation with about 500 people, but later decided to set it up in Colombia since the Costa Rican education system did not guarantee them the required number of inputs into their work force.

Although the mandate of one of the task forces was to encourage CINDE to include the local software firms in decisions around FDI, they could not achieve success primarily for two interconnected reasons. Firstly, formally CINDE was responsible to private shareholders and not subject to any direct government controls. Their criteria for performance were based primarily on increasing the levels of FDI, and concerns on from where it came were secondary. Secondly, the agenda of increasing FDI levels was directly correlated to the size of the firms they could get to invest, with the bigger being better. However, as described earlier the bigger the size of the investing firm, the higher it was seen to be of detrimental affects on the smaller local firms.

Despite considerable pressure exerted by the task force groups in meetings and through other lobbying activities, the formal CINDE institutions were never changed and the institution of a largely independent mandate persisted. In the task force meetings in which we participated, we observed that although CINDE representatives attended these meetings, there was no authentic participation and engagement with the agenda for change. Other task force members described CINDE’s participation as token and representing a political act since this entire process had been mandated by the Minister of Science and Technology, whose political will they could not easily rebuff. Token presence and inaction became important convergent forces to sustain the CINDE institutions, and prevent the level of dissensus to be magnified in the task groups. While there was a simmering dissensus within the other task force members, this could not be heightened to reach a “tipping point.” At a more macro level, the capitalist agenda of CINDE to maximize revenues remained dominant to the more socialist agenda of protection to the local software industry.

This position remained unchanged from 2003-2006, and several new and large MNCs made FDIs through subsidiaries in Costa Rica, and contributed to the loss of staff from local software players. Respondents told us of a definite and increasing level of resistance to CINDE from the indigenous software companies, and a sense of frustration that they could not stem the tide of FDI. A senior CAMTIC member told us in an interview in 2006:

“The companies that come in here and set up shop and hire people, that doesn't mean that any local companies are part of it. That's my point. Yesterday we had news that Fujitsu is setting up a high tech call centre with 500 people, \$5 million. And we hear some of that every month”.

The historical interests of the private shareholders of CINDE were to support their business interests and they thus opposed change in the constitution, aims and objectives of their organisation. Some MNCs such as Hewlett Packard increased their capacity by employing local staff and setting up offshore outsourcing operations from USA. A bidding war between major firms such as Sykes and Proctor and Gamble to poach staff from each other led to increased salaries, which could not be matched by the local industry. A senior CINDE official recognised the problem:

“Sykes, IBM or Hewlett-Packard or Intel, they have a different type of operation by definition, but they are demanding the same human resources (as the software firms)”.

Higher education and other training colleges expressed their lack of capacity to provide the necessary human resources to meet fast growing demand for skilled IT staff. Several software firms were unable to afford the increased salary and in 2006 explained to us that they were on the brink of closure. A senior CAMTIC member explained:

“The only way for these local companies to compete is to be able to make similar salary offers like these. And the only way to do that is if they do work for clients that also pay them well. And that won't happen with local companies working with local customers”.

Costa Rica based firms were also unable to scale their operations and recruit from neighbouring Central American countries due to formal restrictions on visas and work permits.

In summary, in this case of CINDE while there was a clear contradiction between the mandate of CINDE and the interests of the local software industry, adequate dissensus could not be generated to create the impetus for deinstitutionalization. Internally, the task force group did not have adequate capacity to influence CINDE, who played the game of token participation so as to manage the level of dissensus. Externally, the capitalist tide favouring economic growth coming from globalization, the increasing role of businesses, and the presence of expatriate Costa Ricans in the US, helped to further legitimize the CINDE agenda at the expense of the agenda for change that the task force group was trying to enable.

DISCUSSION

The two episodes described above represent contrasting cases of creating deinstitutionalization in one (Caprosoft) and failing in the other (CINDE). In the first, dissensus was initially suppressed by the dominant subculture, but was subsequently mobilized through various external and internal forces contributing to the destabilisation of existing norms and creation of new institutions. In the other case, such a mobilization and escalation of dissensus could not take place leading to the persistence of existing institutions. We comparatively analyze these two episodes

through a political-cultural lens around dissensus. Specifically, we discuss issues around the nature and level of dissensus and their contribution to activating processes of deinstitutionalization..

Nature and Level of Dissensus

In the first episode, the contest between the “old” and the “new” was largely localised within Caprosoft and played out between two groups of the once dominant subculture consisting of the older established Caprosoft members and the opposing counterculture. In this case, dissensus could be inculcated by a core counter culture in the organisational field with shared meanings which mobilized to act in unison. Resources of power were in the form of some key persons from the counter group who were raised to the board, and negotiated a stronger position to persuade colleagues of the benefits of deinstitutionalising by challenging the status quo. Their own personal global interests coupled with concerted action by the task force groups who were armed with knowledge about experience from other contexts, helped in this process of mobilizing and voicing opposition. The counter culture was backed by the political connections of Alexander Mora, a highly respected senior industry leader who was acting as a champion for change, and who had been tipped for future senior government posts. Furthermore, several members of this opposing group travelled to India to visit NASSCOM and were convinced of their model as something appropriate for the embryonic CAMTIC. As more members of the ITES group became members of CAMTIC, both the nature and level of dissensus was heightened, further helped by the forced resignation of members from the earlier dominant group.

In the case of CINDE, insufficient dissensus was able to be sustained which was not adequate to bring about deinstitutionalisation. This in part was due to the political tactics employed by CINDE (political presenteeism) which helped sustain institutions while not aggravating senior politicians that were sponsoring the planning process and keep the status quo ongoing. Moreover, since CINDE was responsible for other business sectors (not only software), the organizational field was heterogeneous, and focused dissensus against the CINDE mandate could not be mobilized, and a counter-culture was not allowed to adequately develop. The power of the task force group members was inadequate to challenge the existing institutions. Furthermore, the capitalist logic inscribed in the formal national constitution, the Washington consensus free market principles (such as embedded into the Central American free trade agreement ‘CAFTA’) that the government was actively pursuing, provided a firm degree of legitimacy to the CINDE mandate, which internally could not be adequately countered. Intel, backed by the Costa Rican president, acted as an important precedent legitimising the mandate of CINDE, and thus made it very difficult to challenge. All these conditions made it impossible to identify or contain a sufficiently strong counter culture to challenge and undermine the institutions CINDE was promoting.

This comparative analysis provides interesting insights into the nature and levels of dissensus and their potential to trigger deinstitutionalization providing explanation for why some organizations adopt radical change whereas others do not, despite experiencing the same institutional pressures. In the CAMTIC case, the local nature of dissensus proved useful as it could be more focused and mobilized towards desired ends. In contrast, the external nature of the dissensus in the CINDE case made it

harder to identify and explicitly relate to the micro agenda of change of the task force groups. The levels of legitimacy were also different, where in the case of CINDE there was a high level of legitimacy attached to the existing institution embedded into free trade principles of the government, whereas in the Caprosoft case this legitimacy (of the existing institution) was weak, glued by social values of a “wine drinking club” with parochial interests which could be relatively easily dismantled in the light of heightened opposition and an economic rationale of greater industry growth. The global winds of change in this regard, favoured the deinstitutionalization of the existing norms, and our action research efforts (creation of task force groups and providing necessary resources) could be seen to have contributed to these change processes.

Contributions and conclusions

This paper makes both practical and theoretical contributions which we now discuss. Creating and implementing national level software export policy represents a “messy problem situation” (Checkland 1990) far removed from the typically promoted context independent critical success factors models (e.g. Carmel 2003). Practically, institutional theory provides tools for a systematic examination and diagnosis for action. As shown above, CINDE were reluctant to change its formal mandate or informal practices to accommodate processes of change, due to being embedded in national institutions of economic policy, and international institutions of the Washington consensus and CAFTA. . The more localized nature of opposition in the Caprosoft case, reinforced by the broader external forces legitimizing change, helped to create an adequate momentum to mobilize change. Such a nuanced understanding of the sources and mechanisms of change which Institutional Theory provides can be drawn upon by managers and other practitioners to understand why certain institutions prevail and others do not, and thus how and when to apply their resources. Such a contextualized approach provides arguably richer practical insights to the phenomenon than “factors’ models like SESM (Carmel 2003, Heeks and Nicholson 2004) which promote the use of best practices but do not focus on the question of the challenges of implementation. Factor models have little to say about implementation but implicit in them are assumptions of unitary homogeneous groups within organisations where formal and informal institutions can be aligned logically and rationally to a national vision. The practical value of such models are thus limited as the Costa Rican case exemplifies. In summary, the practical contribution of this paper is derived from action research and emphasizes the importance of the multiplicity of institutional influences on a seemingly “rational” strategy making process and to critique the view that it is likely to progress harmoniously. The idea of Institutional Theory helps to improve our understanding of why this may be so. In our action research efforts, we partnered with a local firm which helped us to forge an understanding to a certain degree of some of the local institutions and events, which an “external” view would have hidden. We believe that this alliance and understanding has helped us to make more context specific interventions for change..

There are two major points of theoretical contribution which we set out below. The first area of contribution is related to an expansion of the application of institutional theory in IS to understand change. We identified in the literature search that the use of institutional theory in information systems is limited in providing explanation for

change and why some organizations adopt radical change whereas others do not, despite experiencing the same institutional pressures. This paper improves our understanding of this phenomenon and thus expands and extends the literature in IS drawing on institutional theory. The cases contribute an empirical exposition of the variations in the nature and degree of dissensus shaping the interplay between processes of institutionalisation and deinstitutionalisation leading to varying outcomes of change even in the same societal context. Thus, this paper contributes insights into the domain of change informed by institutional theory.

The second major area of theoretical contribution is in relation to the extension of deinstitutionalization to incorporate a cultural-political analysis. We had identified earlier that Oliver (1992) had called for a political-cultural analysis of institutionalized activities to determine how dissensus creates institutional adjustments or erosion. By adopting a deinstitutionalisation analysis we thus extend the empirical literature drawing on this theoretical lens. We also specifically provide insights on the political and cultural dimensions of deinstitutionalisation and the nature and degree of dissensus implicated in persistence and change. We have taken these arguments to a finer level of granularity than Oliver (1992) and draw on an empirical case study to examine different institutional influences arising in the same country but varying due to different organisational fields.

REFERENCES

Al-Jaghoub, S. (2004). Building A Knowledge Based Economy Using ICT For Development And The Role Of The Nation State: A Case Study Of Jordan. Unpublished PhD thesis, Manchester, University of Manchester. .

Arora, A., Arunachalam V., Asundi, J., Fernandes, R. (2001). "The Indian software services industry." Research Policy **30**: 1267-1287.

Avgerou, C. (2000). "IT and organizational change: an institutionalist perspective." Information Technology and People **13**(4): 234-262.

Avgerou, C. (2002). Information Systems and Global Diversity. Oxford, Oxford University Press.

Berger, P. and T. Luckman (1967). The social construction of reality. New York, Doubleday.

Biesanz, M., R. Biesanz, et al. (1998). The Ticos: Culture and Social Change in Costa Rica, Lynne Rienner Publishers.

Carmel, C. C. d. F. a. E. (2004). Israel's 'Silicon Wadi': the sources of its comparative advantage in the IT industry. Building High-Tech Clusters. T. B. a. A. Gambardella. Cambridge, Cambridge University Press.

Carmel, E. (2003). "Introduction to the special issue: The emergence of software exporting industries in dozens of developing and emerging economies." EJISDC **13**(1).

- Checkland, P. and S. G. (1999). Soft Systems Methodology in Action, John Wiley.
- Checkland, P. and S. Holwell (1998). "Action Research: Its Nature and Validity." Systemic Practice and Action Research **11**(1): 9-21.
- Chizema, A. and B. Trevor (2006). "Neo-institutional theory and institutional change: Towards empirical tests on the "Americanization" of German executive pay". International Business Review **15**(5).
- Dewey, J. (1938). Logic: The Theory of Inquiry. New York, Holt.
- DiMaggio, P. J. and W. W. Powell (1991). Introduction. The new institutionalism in organizational analysis. P. J. DiMaggio and W. W. Powell. Chicago, University of Chicago Press: 1-38.
- DiMaggio, P. J. and W. W. Powell. (1983). "The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields." American Sociological Review **48**: 147-160.
- Duong, N. (2004). "Software Industry Development in Vietnam." http://www.iipi.org/Conferences/Hawaii_SW_Conference/Nguyen%20Paper.pdf.
- Erakovic, L. (2006). "Pathways of Changes: Organizations in transition." Public Administration **84**(1): 31-58.
- Farjoun, M. (2002). "The dialectics of Institutional Development in Emerging and Turbulent Fields: The history of Pricing Conventions in the on-line database Industry." Academy of Management Journal **45**(5): 848-874.
- Greenwood, R. and C. Hinings (1996). "Understanding radical organizational change: Bringing together the old and the new institutionalism." Academy of Management Review **21**: 1022-1054.
- Heeks, R. and B. Nicholson (2004). "Software Export Success Factors and Strategies in Developing and Transitional Economies." Competition and Change **8** (3): 267-302.
- Hofstede, G. (1980). Culture's consequences: International differences in work-related values. Newbury Park, CA, Sage.
- Jepperson, R. L. (1991). Institutions, institutional effects, and institutionalism. The new institutionalism in organizational analysis. W. W. Powell and P. J. DiMaggio. Chicago, University of Chicago Press: 143-163.
- Kambhampati, U. (2002). "The software industry and development: the case of India." Progress in Development Studies **2**(1): 23-45.
- Ketelhoehn, N. and M. Porter (2002). Building a cluster: electronics and information technology in Costa Rica. Harvard Business School. Case 9-703-422

- King, J. L., Gurbaxani, V., Kraemer, K. L., McFarlan, F. W., Raman, K. S. and Yap, C. S. (1994). "Institutional factors in information technology innovation." Information Systems Research **5**(2): 139-169.
- Koene, B. (2006). "Situated Human Agency, institutional entrepreneurship and institutional change." Journal of Organizational Change Management **19**(3): 365-382.
- Leidner, D. and K. Timothy (2006). "Review of Culture in Information Systems Research: Toward a Theory of Information Technology Culture Conflict." MIS Quarterly **30**(2).
- Meyer, J. W. and B. Rowan. (1977). "Institutionalized organizations: Formal structure as myth and ceremony." American Journal of Sociology **83**: 340-363.
- Morgan, G. (1986). Images of Organization, Sage.
- Nasscom, (2006) Fact sheet. available at <http://www.nasscom.in/upload/5216/Indian_IT_Industry_Factsheet_2006.doc>.
- Noir, C. and G. Walsham (2007). "The great legitimizer: ICT as myth and ceremony in the Indian healthcare sector." Information Technology & People **20**(4): 313-333.
- North, C. (1990). Institutions, Institutional change and Economic Performance. Cambridge, Cambridge University Press.
- Ó Riain, S. (1997). "An offshore Silicon Valley?" Competition and Change **2**: 175-212.
- Oliver, C. (1992). "The Antecedents of Deinstitutionalisation." Organization Studies **13**: 563-588.
- Orlikowski, W. J. and S. R. Barley (2001). "Technology and institutions: What can research on information technology and research learn from each other." MIS Quarterly **25**(2): 145-165.
- Paus, E. (2005). Foreign investment, development and globalisation. Palgrave, Macmillan.
- Rodrigues, S. (2006). "The Political Dynamics of Organizational Culture in an Institutionalised Environment." Organizational Studies **27**(4): 537-557.
- Roberts, P. and R. Greenwood (1997). "Integrating transaction cost and institutional theories: Towards a constrained efficiency framework for understanding organizational design adoption." Academy of Management Journal **22**(2): 346-373.
- Robey, D. and M.-C. Boudreau (1999). "Accounting for the Contradictory Organizational Consequences of Information Technology: Theoretical Directions and Methodological Implications." Information Systems Research **10**(2): 167-185.
- Robey, D. and J. Holmstrom (2001). "Transforming municipal governance in global

context: A case study of the dialectics of social change." Journal of Global Information Technology Management **4**(4): 19-31.

Rorrer, A. (2006). "Eroding inequality-Straddling the Margin of Tolerance." **20**(1): 225-248.

Sahay, S. and G. Walsham (1997). "Social Structure and Managerial Agency in India." Organization Studies **18** (3): 415-444.

Scott, W. R. (1987). "The adolescence of institutional theory." Administrative Science Quarterly **32**: 493-511.

Scott, W. R. (1994). *Institution and Organizations toward a Theoretical synthesis*. W. R. Scott and M. J. Thousand oaks, Sage publication: 55-80.

Scott, W. R. (2001). Institutions and organizations. Thousand Oaks, Sage Publications.

Selznick, P. (1949). TVA and the grassroots. Berkeley, University of California Press.

Selznick, p. (1957). Leadership in Administration. New York, Harper and Row.

Selznick, p. (1996). "Institutionalism "Old" and "New." Administrative Science Quarterly **41**.

Silva, L. and E. Figueroa (2002). "Institutional intervention and the expansion of ICTs in Latin America: The case of Chile." Information Technology & People **15**(1): 8-25.

Steve M., C. Hardy, et al. (2004). "Institutional entrepreneurship in emerging fields: HIV/AIDS treatment advocacy in Canada." Academy of Management Journal **47**(5): 657-679.

Walsham, G. (1995). "The emergence of interpretivism in information systems research" Information Systems Research **6**: 376

Westrup (2003). *ICTs and Organizational Control Across Cultures: The Case of a UK Multinational Operating in China in IS Perspectives and Challenges in the Context of Globalization*. Joint WG 8.2 & 9.4 IFIP Working Conference, Athens University of Economics and Business.

Windels, P. and J. C. "Management reform in Flemish public centres for social welfare: Examining organizational change." Local Government Studies **32**(4): 389-411.

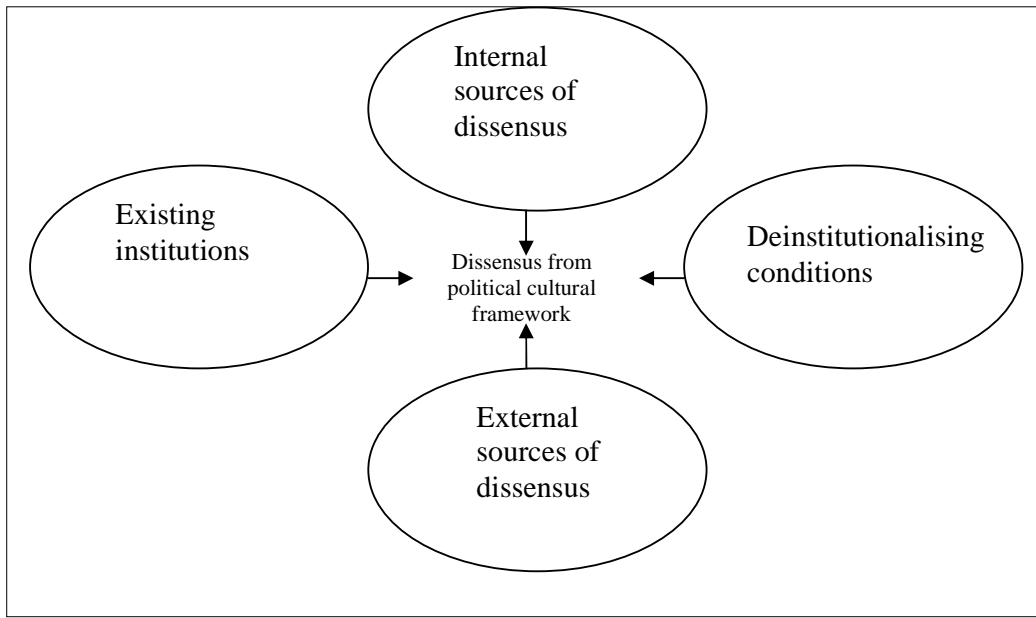


Figure 1: Theoretical framework

1. Enter the problem situation
 2. Establish roles
 3. Declare methodology and framework
 4. Take part in change process
 6. Exit
 7. Reflect on experience and record learning in relation to framework, methodology and area of application
5. Rethink 2,3,4
- ↑

Figure 2 The process of action research adapted from Checkland and Holwell (1997)

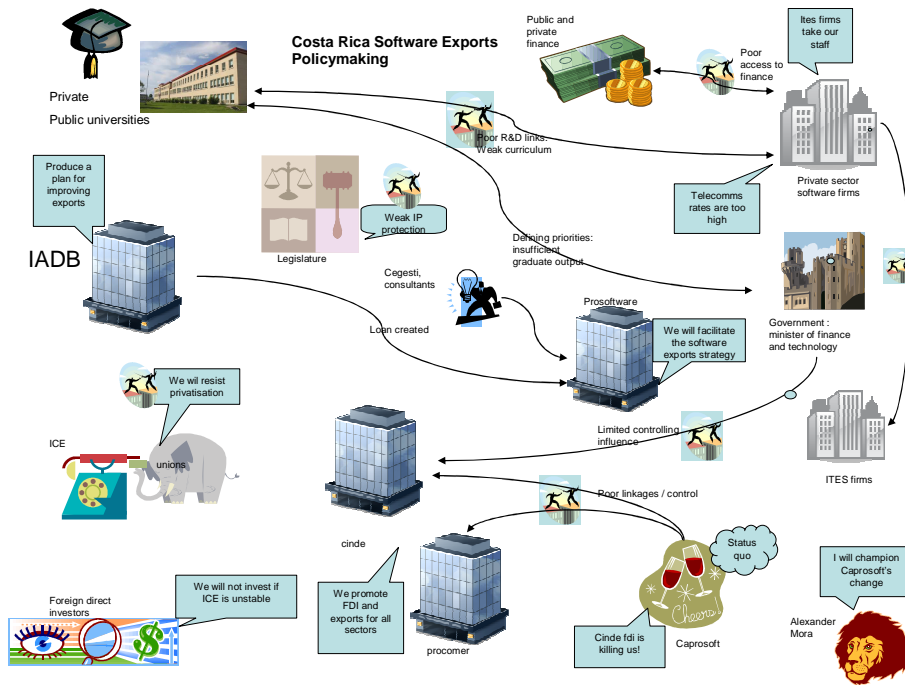


Figure 3 Rich picture of Costa Rica Software Exports Planning

| Data collection mechanism | 2003 | 2005 | 2006 | Total |
|----------------------------------|-------------|-------------|-------------|--------------|
| Interviews (co present) | 18 | | 6 | 28 |
| Interviews (telephonic) | | 4 | | |
| Focus Groups | 2 | | | 2 |
| Workshops | 4 | | | 4 |

Table 1: Summary of data collection sources

| | | |
|--|---|---|
| Vision statements and plans of competitor countries (Malaysia, Jordan) | Software association terms of reference from major software exporting nations | Characteristics of telecommunications of competitor countries |
| Education systems and cost of staff in competitor nations | Laws in competitor nations which contribute to software exports | Access to finance in competing software export countries |
| Technology parks and incubators | | |

Table 2 Examples of resources provided to task force groups

| | |
|--|--|
| Minister of Science and Technology | Staff from IDB, banks, venture capitalists and angel investors |
| Relevant university researchers and faculty | Officials from FDI promotion organisation la Coalición Costarricense de Iniciativas de Desarrollo 'CINDE' |
| Consultants from the Inter-American Development Bank (IADB) sponsored organisation "Prosoftware" | Officials from the Costa Rican trade promotion organisation Promotora Comercio Exterior de Costa Rica 'PROCOMER' |
| Managers from private sector firms including corporate financiers (e.g. Intel) | Officias from the Instituto Costarricense de Electricidad (ICE), the Government owned organization responsible for Telecommunications. |
| Members and officials from the software industry association CAPROSOFT. | Ourselves and consultants from Cegesti |

Table 3 The organisational field

| Nature of institutional influences | | Deinstitutionalisation or persistence |
|--|--|--|
| CAPROSOFT registry of association scope of the sector legally defined. By laws of this registry. | "Wine drinking club". Informal influence of longer term members to new sectors joining. Lack of energy / impetus for change – maintenance of status quo. | "Plateau of comfortable existence". Status quo "Costa Ricans will not offend each other" |
| CINDE Mandate of bringing in FDI intersectoral. Responsible to private shareholders, none to the industry or CAPROSOFT | Lack of participation or coordination with the software industry in appropriateness of FDI. | FDI killing the industry through the competitive forces it is generating |

Table 4 Forces for institutional deinstitutionalisation or persistence

Appendix I

STRATEGIC PLAN TO DEVELOP THE COSTA RICAN SOFTWARE INDUSTRY

Contents

| | |
|--|--|
| <i>CHAPTER 1</i> | |
| <i>INTRODUCTION</i> | |
| 1.1 Background and terms of reference | |
| 1.2 The importance of articulating a strategy for software exports | |
| 1.3 Methodology | |
| 1.4 Theoretical perspective | |
| 1.5 Costa Rican software industry overview | |
| <i>CHAPTER 2</i> | |
| <i>KEY CHALLENGES FOR THE COSTA RICAN SOFTWARE INDUSTRY: AN EMPIRICAL ANALYSIS</i> | |
| 2.1 The challenge of scale | |
| 2.1.1 Small size of the market..... | |
| 2.1.2 The limited number of companies and diversity of market segments | |
| 2.1.3 The size of individual firms | |
| 2.2 Marketing systems | |
| 2.2.1 The problem of branding the image of Costa Rican software..... | |
| 2.2.2 Inadequate promotional efforts | |
| 2.2.3 The focus on USA markets | |
| 2.3 Institutional framework | |
| 2.3.1 Weak government support | |
| 2.3.2 Lack of motivation to satisfy governmental demand | |
| 2.3.3 Weak structure of CAPROSOFT | |
| 2.4 Financial systems | |
| 2.4.1 Weak access to capital | |
| 2.4.2 Regulatory structures | |
| 2.4.3 International conditions..... | |
| 2.5 Educational systems | |
| 2.5.1 Weak university-private sector linkages | |
| 2.5.2 English language capabilities | |
| 2.5.3 Poor management capabilities..... | |
| 2.6 Infrastructure | |
| 2.6.1 Telecommunications | |
| 2.6.2 Technology Parks..... | |
| <i>CHAPTER 3</i> | |
| <i>COSTA RICA'S COMPETITIVE POSITION</i> | |
| 3.1 Profile of International Demand | |
| 3.2 Demand in Spanish speaking markets and regional market in Latin America | |

| | |
|---|-------------------------------------|
| 3.3 Software products | |
| 3.3.1 Building domestic products for export..... | |
| 3.3.2 Product support for international software product vendors | |
| 3.4 Demand for software services | |
| 3.5 IT enabled services | |
| 3.6 Supply trends | |
| 3.6.1 India | |
| 3.6.2 Ireland: | |
| 3.6.3 Israel..... | |
| 3.6.4 Russia..... | |
| 3.6.5 The Philippines | |
| 3.6.6 China..... | |
| 3.6.7 Suppliers in the Americas | |
| Brazil | |
| Canada | |
| Chile | |
| Mexico | |
| 3.7 Positioning the Costa Rican software industry – towards a “brand” | |
| CHAPTER 4 | |
| NATIONAL VISION | |
| 4.1 Introduction | |
| 4.2. International experiences | |
| 4.2.1 The Malaysian vision | |
| 4.2.2 The Jordan IT Vision Error! Bookmark not defined. | |
| 4.3 Building linkages – trust and risk Error! Bookmark not defined. | |
| CHAPTER 5 Error! Bookmark not defined. | |
| NATIONAL SOFTWARE RELATED INFRASTRUCTURE Error! Bookmark not defined. | |
| 5.1 Introduction Error! Bookmark not defined. | |
| 5.2 Institutional framework: | Error! Bookmark not defined. |
| 5.2.1 NASSCOM, India | Error! Bookmark not defined. |
| 5.2.2 Fort Ross, St. Petersburg, Russia | Error! Bookmark not defined. |
| 5.2.3 Some other initiatives: Ireland and Brazil..... | Error! Bookmark not defined. |
| 5.3 Telecommunications | Error! Bookmark not defined. |
| 5.4 People related infrastructure | Error! Bookmark not defined. |
| 5.4.1 Quantity of trained people and quality of their technical skills... Error! Bookmark not defined. | |
| 5.4.2 The management skills of IT people | Error! Bookmark not defined. |
| 5.4.3 English speaking and other language skills..... | Error! Bookmark not defined. |
| 5.4.4 Cost of labor:..... | Error! Bookmark not defined. |
| 5.4.5 Building university-private sector linkages:..... | Error! Bookmark not defined. |
| 5.5 Legal related infrastructure | Error! Bookmark not defined. |
| 5.5.1 Cyber laws | Error! Bookmark not defined. |
| 5.6 Financial Infrastructure | Error! Bookmark not defined. |
| CHAPTER 6 Error! Bookmark not defined. | |
| NATIONAL SOFTWARE INDUSTRY Error! Bookmark not defined. | |
| 6.1 Introduction | Error! Bookmark not defined. |
| 6.2 Technology parks | Error! Bookmark not defined. |

| | |
|---|-------------------------------------|
| 6.3 Building capacity through linkages and collaborations..... | Error! Bookmark not defined. |
| 6.4 Building Capabilities through standards and management improvement | Error! Bookmark not defined. |
| 6.4.1 Process improvement | Error! Bookmark not defined. |
| CHAPTER 7 | Error! Bookmark not defined. |
| STRATEGY AND ACTION PLAN..... | Error! Bookmark not defined. |
| 7.1 Introduction..... | Error! Bookmark not defined. |
| 7.2 The strategic plan | Error! Bookmark not defined. |
| 7.2.1 Development of a vision | Error! Bookmark not defined. |
| 7.2.2 Development of market opportunities..... | Error! Bookmark not defined. |
| 7.2.3 Strategic tasks for the national software related infrastructure ... | Error! Bookmark not defined. |
| 7.2.4 Strategic tasks for the software industry | Error! Bookmark not defined. |
| 7.2.5 Prioritization of main strategic tasks | Error! Bookmark not defined. |
| 7.3 Impact expected on the software industry | Error! Bookmark not defined. |
| 7.4 Taking action through the task forces..... | Error! Bookmark not defined. |
| 7.4.1 Task force on marketing and foreign direct investment (task force no.1) | Error! Bookmark not defined. |
| 7.4.2 Task force on defining a new institutional framework for enabling software exports (task force no.2)..... | Error! Bookmark not defined. |
| 7.4.3 Task force on strengthening university-private sector linkages (task force no.3) | Error! Bookmark not defined. |
| 7.4.4 Task force on financing of software exports (task force no.4).... | Error! Bookmark not defined. |
| 7.4.5 Task force on regulatory frameworks (task force no.5) | Error! Bookmark not defined. |
| 7.4.6. Task force on infrastructure (task force no.6) | Error! Bookmark not defined. |
| 7.5. Managing and monitoring the strategic plan | Error! Bookmark not defined. |
| 7.5.1 The strategy implementation process | Error! Bookmark not defined. |
| 7.5.2 Monitoring the impact on the software industry | Error! Bookmark not defined. |
| 7.6 Conclusions and recommendations | Error! Bookmark not defined. |
| <i>Appendix 1 Strategic agenda for the four task forces</i> | Error! Bookmark not defined. |
| <i>References and bibliography</i> | Error! Bookmark not defined. |

Appendix II

Example Terms of reference for task forces

GROUP No.1 MARKETING INTER SECTORAL LINKAGES, MARKETING AND FOREIGN DIRECT INVESTMENT TASK FORCE

1. PARTICIPANTS

| <i>Name</i> | Organization |
|-------------------|---------------------|
| Vanessa Gibson | CINDE |
| Emmanuel Hess | CINDE |
| Mónica Astúa | PROCOMER. |
| Guido Goicoechea | JD CAPROSOFT |
| Luis Chaves | Avantica |
| Mario Chaves | Avantica |
| Federico Zoufaly | Artinsoft |
| Daira Gómez | CEGESTI |
| Carlos Castro | WORK-EZ |
| Ronald Jiménez | CODISA |
| Randall Fernández | SIC |
| Adolfo Cruz | Prosoftware |
| Matías Zeledón | Infosistemas |

2. GENERAL OBJECTIVES

- 1) Devise a strategy for marketing the products and services of the Costa Rican software industry into particular segments and international markets based on existing and future capabilities. This will take into account the profile of the domestic industry and local and international demand.
- 2) Devise strategies for attracting appropriate foreign direct investment (FDI) relevant to the Costa Rican software industry.

3. SPECIFIC OBJECTIVES

- To develop a large concept brand to promote Costa Rica as a business place that involves Tourism and Technology.
- To improve competitiveness of specific economic sectors through software solutions and services.
- Devise a system to promote software exports using appropriate sales promotion techniques.
- Devise a system to define and promote FDI appropriate to software and services exports.

1. ACTION PLAN

| |
|---|
| <p>Specific Objective: To develop a large concept brand to promote Costa Rica as a business place that involves Tourism and Technology</p> <p>Owner: CAPROSOFT</p> <p>Time of execution: October 2003-June 2004</p> <p>Measures of performance:</p> <ul style="list-style-type: none"> • Promotional strategy documented and implemented. • Number of links established with other stakeholders. • Web site on line with updated content. • Number of information requests. • Number of international attendees. |
|---|

| Tasks | Resources | Time | Responsible |
|--|---------------|---------------------|-------------------------------------|
| 1. To develop the promotional strategy, based on the strategic plan and the quality levels of the sector. | US\$100.000 | 6 months | PROSOFTWARE |
| 2. To implement the promotional strategy, based on the strategic plan and | To be defined | Permanent | PROSOFTWARE |
| 3. To establish a coordination mechanism with ICT, Foreign Affairs Ministry, PROCOMER, COMEX, and CINDE. | No | 3 Months /permanent | CAPROSOFT |
| 4. To find specific opportunities that involves tourism and technological business. | US\$3.000 | 3 months/ Permanent | PROSOFTWARE/ ICT |
| 5. To identify and ask for support to Costa Ricans who have leader positions and live abroad. Keep them informed and trained. To develop networking. | US\$1.000 | 6 months/ permanent | MICIT |
| 6. Web site that concentrates all technological offer. <ul style="list-style-type: none"> ✓ Design ✓ Development | US\$22.000 | 6 months | CAPROSOFT / PROCOMER / CINDE /MICIT |
| 7. To inform and involve large international | US\$1.000 | January 2004/ | MICIT /CINDE |

| | | | |
|--|--|-----------|--|
| <p>companies like INTEL, ABBOTT, Microsoft, CISCO, SYKES, ORACLE, P&G, HP, CONAIR, BAXTER, etc, about the development of the strategy. Once the plan is ready, we must invite to the transnational companies to present/display it, and request its support.</p> | | Permanent | |
|--|--|-----------|--|