

# *The Effectiveness of Negotiated Agreements and its Inspirations for Chinese Knowledge Management*

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**Abstract**—Negotiated agreements have become a widely used management model with respective covenants for different social network context in European countries. Negotiated agreements between government and industry in which industry obliges to take ‘voluntary’ action to help realizing regional management objectives. This paper describes and analyses development of the use of such covenant model in European public administration practice. After an extensive evaluation of the effects of the covenants in the European social network context, the paper conducts a comparable study of the Chinese knowledge management also in social network context, and expose that Chinese knowledge management policy and knowledge management practice is still in the first stage of Europe public administration evolution. As a conclusion, the paper explores the possible application of covenants model in Chinese knowledge management.

**Keywords**—*Negotiated agreements, Public administration, Knowledge management, Social network*

## I. INTRODUCTION

Negotiated agreement as a success management model for public administration in social network context is originally introduced to implement in the first National Environmental Policy Plan (NEPP 1989). NEPP’s main ambition was to introduce a sustainable society with a collaboration mechanism in Public administration system<sup>[1]</sup>.

Since NEPP represented an ambitious new step, it was obvious that these targets could not be reached by conventional policy-instruments only<sup>[2]</sup>. The publication of the aspiring NEPP coincided with a growing lack of confidence in traditional policy approach with its emphasis on direct regulation, especially because of the implementation problems that are not uncommon to China. The combination of new ambitions with a lack of confidence in traditional approaches thus called for a new strategy and style. The new strategy would aim more specifically at eliciting private initiative and ‘shared responsibility’. Instead of setting technology-forcing standards unilaterally the approach builds on close collaboration with target groups. ‘Voluntary’ agreements are thought to be the key instruments in this kind of approaches. Through negotiating processes and the agreements that result from these, the Dutch government has succeeded in improving the effectiveness of their environmental system management<sup>[3]</sup>.

Public administration is an activity including the government-led public organizations and the public interest to point to non-governmental organization (NGO) for the realization of public interest, to provide public goods and services; it can be seen as the problem of public administration that spread of public goods and services among all the concerned stakeholders, and the linkage status of all these stakeholders (or nodes) form a special topological structure of social network<sup>[4]</sup>. In view of social network, knowledge management system is to provide a new way for regional social nodes to share explicit knowledge and tacit knowledge and to use collective wisdom to improve business responsiveness and innovation<sup>[5]</sup>. The dilemma of Chinese knowledge management policy today is conflicts of technology output and application extension, and its economic development. An extensive evaluation study of Europe public administration model with context development and identification of the crucial elements as factors of success will undoubtedly be of great help for the knowledge management in China.

## II. THE EFFECTIVENESS OF THE COVENANTS AND THE STUDY OF THEIR SUCCESS IN EUROPE

The relationship of all the concerned stakeholders in public administration system (or social network nodes) is gradually changing with the development of the topology structure of social network, and the optimization of the nodes-relationship to maximize the effectiveness of the management system raised great concerns for public administrations. The following case illustrates how the effectiveness is like of the covenant model for to the solutions.

In 2002/2003 two of the authors carried out a study on the effectiveness of the covenants, commissioned by the Dutch ministry of the Environment (VROM). It was an extensive study that included the industry sector covenants. The focus in the project was on the identification of success and fail factors, building on the insights of a European project Neapol (De Clercq 2002). The project has resulted in a checklist for the future use of covenants. The research methodology involved almost 70 telephone interviews with the professional mediator that is hired to guide and organize the negotiation processes. The data from the interviews were further complemented by workshops that were organized for 8 covenants. And in these workshops policy makers, industry and NGOs participated.

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### A. Main results of the research

Often the covenant was implemented following societal pressure as well as governmental pressure to deal with the problematic situation. This means that covenants are often used within a context where both target groups as well as governmental actors find further action inevitable. So all the concerned nodes of the social network (or regional partial network) are actually in a almost same situation of social capital, And the reactivity of each node will mostly influenced by its connection status in the network. A majority of the cases the built on existing collaboration with the target group, although this doesn't necessarily imply that the level of mutual trust is also high from the start (Tab.1).

Tab1. Initial implement circumstances (Index according to case study)

	Agree (%)	Disagree (%)
There was a great societal pressure	74	26
There was great pressure from the government	77	23
There was already close collaboration previous to the covenant	61	39
There was great trust preceding the covenant (other 6% gave a neutral answer)	48	46

The results of the covenants concern many different aspects. As indicated earlier, covenants are popular in periods when it is obvious that the permit system will not deliver sufficient results and when there is a need to raise the level of ambition. Next to achieving direct management results, the development of new technologies, learning effects, changing attitudes and the improvement of collaboration between governments and target groups are also goals, in this situation, covenant also plays kinds of platform in the social network topology structure–node behavior interaction in a long run.

- Systematic management results: Regarding the environmental results, the level of ambition also identified that was laid down in the covenants in relation to existing regulation. Fig1 summarizes the results for three indicators: target achievement; fundamental improvement of performance; and development of new technologies.
- Side effects: In addition to direct management results, covenants can have several side effects, such as building capacity for future environmental improvements. Fig1 summarizes the development of side effects for three indicators: changing attitudes of the target groups; new knowledge on achieving ambitious targets; and improved collaboration between governments and target groups.
- Effectiveness: An important question is to what extent these results can be attributed to the covenants. This is a difficult task since the covenants are not implemented in isolation. Fig1 summarizes the effectiveness for two indicators: role of the covenant in getting results; regulation would yield less result.
- Efficiency: Environmental voluntary agreements are often thought to improve efficiency through

distributing costs among individual members of the target group in a way that considers the individual cost characteristics. Fig1 summarizes the efficiency for three indicators: minimizing total costs; improved efficiency through distributing costs over the target group; improved efficiency through phasing of costs.

### B. The key results of the covenants

The data have been gathered using a five-point scale. Notably, almost all scores are above the average score 3, indicating that the majority of our respondents are relatively positive on the totality of the results. We judged the targets laid down in the covenant as ambitious, although not necessarily much more ambitious as regulation. This is due partly to the fact that covenants in a lot of cases are explicitly linked to regulation.

Most importantly, the judgment on target achievement is positive. Our respondents saw covenants as a positive contribution to the results of the last decade. We should note that this is not just perception. Many evaluation studies on individual covenants during the last years as well as progress reports confirm these results. In cases where the covenant did not reach its goals this was mostly due to an unrealistically high level of ambition and lack of motivation by the target group, next to phasing in the investment plans by the target group, free riders, and a lack of support by governmental agencies. (Tab.2)

Tab2: An overview of the results of the covenants (Each effect in 5 scores: scores / items)

Indicaator	Meer thema's / brede doelgroep									
	I één/ smalle doelgroep	II één/ brede doelgroep	III Meer / smalle doelgroep	IV Meer / brede doelgroep	Alle convenanten					
Target achievement	2.17	<b>3.83</b>	2.62	<b>3.38</b>	2.53	<b>3.47</b>	4.00	<b>2.00</b>	2.52	<b>3.48</b>
Fundamental improvement of performance	2.52	<b>3.48</b>	2.32	<b>3.68</b>	2.25	<b>3.75</b>	3.00	<b>3.00</b>	2.43	<b>3.57</b>
Development of new technologies	3.30	<b>2.70</b>	2.86	<b>3.14</b>	2.83	<b>3.17</b>	3.60	<b>2.40</b>	3.07	<b>2.93</b>
Changing attitudes target group	2.35	<b>3.65</b>	2.59	<b>3.47</b>	1.93	<b>4.07</b>	2.60	<b>3.40</b>	2.36	<b>3.64</b>
New knowledge	2.90	<b>3.70</b>	2.71	<b>3.29</b>	2.00	<b>4.00</b>	2.00	<b>4.00</b>	2.55	<b>3.45</b>
Improved collaboration	2.64	<b>3.36</b>	2.09	<b>3.97</b>	1.67	<b>4.33</b>	2.00	<b>4.00</b>	2.17	<b>3.83</b>
Role covenant important	2.09	<b>3.97</b>	1.86	<b>4.14</b>	1.93	<b>4.07</b>	2.80	<b>3.20</b>	2.03	<b>3.97</b>
Regulation would yield less results	3.30	<b>3.30</b>	3.33	<b>3.33</b>	3.85	<b>3.85</b>	4.20	<b>4.20</b>	3.51	<b>3.57</b>
Minimizing total costs	2.74	<b>3.26</b>	2.53	<b>3.47</b>	3.09	<b>2.97</b>	3.80	<b>2.20</b>	2.83	<b>3.17</b>
Improved efficiency through distribution costs	4.20	<b>4.20</b>	4.11	<b>4.11</b>	3.92	<b>3.92</b>	4.00	<b>4.00</b>	4.09	<b>4.09</b>
Improved efficiency through phasing	2.56	<b>3.44</b>	2.17	<b>3.83</b>	2.13	<b>3.87</b>	3.50	<b>2.50</b>	2.38	<b>3.62</b>
		<b>I thema</b>		<b>Meer thema's</b>		<b>smalle doelgroep</b>		<b>brede doelgroep</b>		<b>Alle convenanten</b>
Doelbereiking	2.39	<b>3.67</b>	2.84	<b>3.76</b>	2.32	<b>3.68</b>	2.84	<b>3.76</b>	2.52	<b>3.48</b>
Trendbreuk in milieuprestatie	2.42	<b>3.58</b>	2.47	<b>3.53</b>	2.42	<b>3.58</b>	2.44	<b>3.56</b>	2.43	<b>3.57</b>
Ontwikkeling nieuwe technologieën	3.07	<b>2.93</b>	3.06	<b>2.94</b>	3.13	<b>2.88</b>	3.00	<b>3.00</b>	3.07	<b>2.93</b>
Verandering houding doelgroep	2.48	<b>3.52</b>	2.11	<b>3.89</b>	2.18	<b>3.82</b>	2.59	<b>3.47</b>	2.36	<b>3.64</b>
Kennis over bereiken ambitieuze doelstellingen	2.81	<b>3.79</b>	2.00	<b>4.00</b>	2.53	<b>3.47</b>	2.58	<b>3.42</b>	2.55	<b>3.45</b>
Verbeterde samenwerking overheden/doelgroep	2.36	<b>3.64</b>	1.75	<b>4.25</b>	2.24	<b>3.76</b>	2.07	<b>3.93</b>	2.17	<b>3.83</b>
Rol covenant belangrijk	1.98	<b>4.02</b>	2.15	<b>3.85</b>	2.03	<b>3.97</b>	2.04	<b>3.96</b>	2.03	<b>3.97</b>
Zonder covenant minder resultaten	3.70	<b>3.70</b>	3.84	<b>3.84</b>	3.81	<b>3.81</b>	3.67	<b>3.67</b>	3.75	<b>3.75</b>
Met regelgeving minder resultaten	3.32	<b>3.32</b>	3.94	<b>3.94</b>	3.52	<b>3.52</b>	3.50	<b>3.50</b>	3.51	<b>3.57</b>
Minimalisatie totale kosten	2.63	<b>3.37</b>	3.31	<b>2.69</b>	2.87	<b>3.13</b>	2.79	<b>3.27</b>	2.83	<b>3.17</b>
Minimalisatie kosten door verdeling over doelgroep	4.15	<b>4.15</b>	3.94	<b>3.94</b>	4.09	<b>4.09</b>	4.09	<b>4.09</b>	4.09	<b>4.09</b>
Vermijding kosten door fasering	2.36	<b>3.64</b>	2.42	<b>3.58</b>	2.36	<b>3.64</b>	2.41	<b>3.59</b>	2.38	<b>3.62</b>

The results also point out that covenants have significant other benefits beside direct public administration results:

- The covenants have led to improved collaboration between governments and the target group (mentioned by 80% of the respondents);

- Governments and target groups have gained mutual understanding (78%);
- The attitude of the target groups towards environmental issues has improved (74%);
- The covenants have resulted in more knowledge on reaching environmental goals (71%);
- The covenants have facilitated further developments in environmental policy (63%);
- The covenants have led to innovative behavior of the target group (54%).

For each node in the public administration system, negotiated agreements also can constraint it according to the above conclusions, and have the similar results of benefits.

Based on these results we may conclude that our respondent nodes have a fairly positive judgment on almost all side effects. They also see positive contribution to management integrations. Remarkably, although minimizing costs is often mentioned as one of the benefits of covenants, it is clear that our respondents see missed opportunities here.

### C. *A general conclusion on the use of covenants in Europe*

Since the end the 1980s there is a worldwide trend of an increasing use of voluntary approaches and covenants in Europe. However, the question of their efficacy was to some extent still unanswered, as was the question of identifying success and fail factors. The main research question focused, therefore, on identifying the situation in which the use is most appropriate and situations in which use should be dissuaded from.

All in all, the judgment is quite positive on the contributions that covenants can have to successful public administration. Next to the positive public administration results that have been realized, the main benefit of covenant building is found in the concomitant processes. Through these processes mutual trust is strengthened, new knowledge is developed, and partners have the option of building their relationship in a constructive manner. There are some constrains too: technological breakthroughs do not evolve easily from covenants; the transaction costs can be huge; and covenants are not a panacea for all situations. The context, in which covenants are employed, therefore, is of special importance.

## III. THE CONTEXT EVALUATION OF NEGOTIATED AGREEMENTS IN PRACTICES

In view of socio-network structure, the actual situations of node linkage really inflect their behavior. In those studies four context hypotheses concerning with public administration network style, policy instrument overawe, sectoral homogeneity and sector imago vulnerability, were developed to assess the influence of the socio-economic context on the performance of negotiated agreements.

### A. *Public administration network style hypotheses*

The public administration network usually evolves in a tradition and climate of consensus seeking, therefore, joint problem solving, mutual respect and trust is a crucial positive factor for the performance of negotiated agreements. When parties are familiar with a certain instrument, such an approach receives the benefit of all kinds of 'sunk costs'. Organizations develop what are called standard operating procedures—a learned response of the organization to certain problems.

### B. *Instrumental hypothesis*

Public administration makers showing a willingness to use alternative public administration instruments as a stick behind the door to deal with public administration problems is a crucial factor for the positive performance of negotiated agreements. As the old adagio of 'Speak softly and carry a big stick', a public management approach that encourages companies for the socially desirable, rather than restricting them from the undesirable, calls for a delicate balance between external pressure and internal motivation. A public management approach on the basis of 'consensual' negotiations can only succeed if realization of the public administration objectives is ultimately perceived by all participants to be 'inevitable'. This perception can only be achieved by means of sufficient social and political pressure. In such a public management approach, therefore, it is vital to have optimal fine-tuning of legislation and enforcement on the one hand and consultation and self-regulation on the other.

### C. *Sectoral homogeneous hypothesis*

The fact that the industry sector involved is homogeneous, has a small number of players, is dominated by one or two players, or has a powerful industry association that can speak for all its members, are crucial factors for the positive performance of negotiated agreements. The point regarding to be able 'to speak for all its members' is not that it can advocate their interests, but that it has sufficient legitimacy among its members to be allowed to make promises in order to compromise.

### D. *Corporate identity hypothesis*

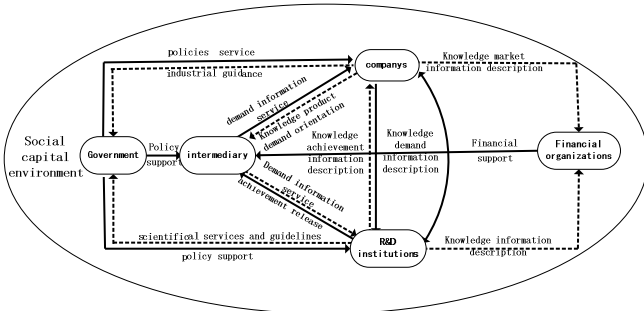
Firms can gain competitive advantages due to consumer pressure by co-operating in negotiation and by compliance with a negotiated agreement. The general effect of proximity to final markets and consumers is that poor method of public administration performance is riskier for the industry involved. Due to the salience of the usually well-known products, the chance of criticism by the public media increases, with possible consequences for both consumer sales and the tenacity of the authorities' response. This gives each firm additional incentive to keep a clear management record; both by accepting regulations and occasionally even by improving management performance on their own initiative.

## IV. THE CURRENT SITUATION OF CHINESE KNOWLEDGE MANAGEMENT AND PRACTICE

Centering as innovative enterprises, Chinese knowledge innovative social network also involves government agencies,

research and intermediary organizations, financial services institutions [6]. Social network service innovation is essentially the relationship among innovation subjects based on social capital, and innovative connection between innovative enterprises through knowledge market by way of demand description to intermediary organizations, financial service institutions. Interaction between each node of diffusion of innovative knowledge is not only a knowledge flow transfer process, but also the adaptive process of service innovation and innovation system (Fig1).

Figure1 Diffusion of innovative knowledge in social capital environment



The Chinese knowledge management system is also on its way of optimization [7]. In the past few years, regarding to more and more demand for knowledge and technology in industries, more and more management tackle & practice were put into effect, such as patents management, innovation subsidization, and various preferential policies to promote innovative applications, and involves more and more investment every year. However, Chinese knowledge management system is not completed yet in general; most of its concrete policies and measures are still on the bases of traditional planning and administrative commands of the governments, which do not suitable to actual demand on innovative nodes (subjects) in social network context [8].

Although some of the implementation and strategy of Chinese knowledge management to some extent alleviated the pressure of a strong demand for technology with the economic development, contradictions problems of derailment of new technologies social demands is still of great noteworthiness. In knowledge management practice, there is a huge gap and lagging between innovation and its industrialization, in comparison with the western average level. In a sense, Chinese knowledge management and practice are still in the primary stage. Most national economic decisions, although they show more and more attention to effectiveness of knowledge management problems, are somewhat vague and of not enough strength, compared with enthusiasm for economic investments.

Except for the lack of motivation for innovation, Chinese knowledge management is also short of pressure by individuals and institutions on innovative subjects (and enterprises), due to a lack of participation and notification rights, which are very necessary for knowledge management practice. In contrast, the Dutch covenant model overcomes the motivation constraints with remarkable effectiveness right through exchange and negotiation with the target groups, on the bases of the common sense of the management objectives regarding to governmental plans. In a sense, effective understanding and communication

in a knowledge management system (especially in application stage) are of great significance and necessary to the innovation objective.

It is possible to explore the deep systematic problems of Chinese knowledge management system, if we compare the similarity and features of Chinese knowledge management practice with that of European public administration evaluation. The success and effectiveness of the covenants model, which is based on a freed policy practice, and in the almost same constraints that China facing today, without any doubt, can help China overcome its knowledge management difficulties. In practice, it is of course important to consider Chinese context features in view of all the relevant factors that the success of the covenant model proves to be dependent on.

## V. A COMPARATIVE VIEWPOINT OF THE CONTEXT FEATURES OF CHINESE KNOWLEDGE MANAGEMENT

Chinese knowledge management has achieved great success. But it should be clear that the success is achieved in the context of a poor economic situation, a whole lot of input and rarely by the common sense of knowledge management objectives. A clear understanding of the current Chinese knowledge management context is of great significance to inspire a more successful knowledge management model.

### A. The Chinese current knowledge management lacks the necessary degree of motivation

China has done more and more to improve its knowledge management system to promote innovations, but most of its efforts trip-outs somewhat from inefficiency, or even sometimes neglected in actual applications. The hardship situation of Chinese knowledge management is in essence due to the lack of own motivation and to inadequate stimulants among all stakeholders. In realm of government - since economic growth is still dominating Chinese economic and social assessment systems - knowledge pervasion & spillover between these upper and lower nodes, which is essential for innovation, has not been a real emphasis or common sense. In contrast, the motivation lacks which upstream and downstream production and application of these nodes come from the lack of exchange of real demand in knowledge management. In European countries, the main motivation for knowledge management is the basic understanding of the public administration problem, and a common sense and pressure on all stakeholders by government and public.

### B. There is an urgent need to optimize the responsibility system

Current Chinese knowledge management mostly focuses on laboratory **project research** and **project** evaluation, which do not concern about its practical application. The unitary input from the government leaves great gaps with actual needs and is difficult to apply in knowledge management practice, and has accumulated a mass of arrears. Where as in Europe, the success of public administration is, to a large extent, attribute to the common efforts of all stakeholders and partners from government and public. In European public administration practice, all stakeholders have their own values

and objectives, which make it important to harmonize the responsibility system to balance the interests of all node partners. If all node in a social network know beforehand that one way or other solutions to a problem have to be found and applied, then came the question of whether a covenant is the most efficient manner in which to proceed<sup>[9]</sup>. Under such circumstances many target groups will rather accept to negotiate and to be held accountable for the implementation of the agreement, than to await rigid and unitary regulations that can prove more costly. In this coordinated management style, common sense and participation plays a crucial role.

## VI. THE INSPIRATION OF COVENANT MODEL: CHINESE FUTURE KNOWLEDGE MANAGEMENT STRATEGY

It is quite clear that Chinese knowledge management is still at its primary stage, and it is relevant to prospect the potential success of the covenant model in Chinese knowledge management. No doubt it is of strategic significance for China to catch up with the most advanced knowledge management level. When reckoning with the lessons, thought by research and study of the advanced experience in Europe, China can keep away from unsuccessful experiences and leap over unnecessary intermediate evolution steps.

The national knowledge management should be reliable and prudent. We should take into account long-term sustainable development on the base of coordination among representatives, and also intend to strength its international competition capability. It is not difficult to find that the starting point of covenant in Europe was just to deal with similar problems in Chinese knowledge management such as: A: creating a motivation mechanism on the base of closer links between upstream and downstream nodes of knowledge management network and joint attempts to realize these objectives in the most cost-effective way. B: dealing with organization and management problems related to the consistence of right-obligation-profit.

In fact, covenant knowledge management has already sufficient applicability for Chinese knowledge management at present. China has developed knowledge management policy in the form of a macro legal framework, with a licensing and patent system, and also an extended scheme of intellectual property taxation. At this point, the evolution of European public administration provides China with a helpful reference, and the covenant model gives an idea for a practical shortcut. Negotiations between the relevant targets nodes and governments to specify what the national plan for the social needs for them, could provide a general format for better, more serious and more efficient implementation of all innovations.

Indeed the covenants models are not a panacea for all situations and the level of information proves to be important for its surplus value. First of all, even a clear targets establishing will be quite difficult, if without some basic understanding of the knowledge management situation. On the other hand, if all partners know beforehand what solutions there are to a knowledge management problem, then it is questionable whether a covenant is the most efficient manner in which to proceed. That means covenants are best used in a

certain phase of a public administration cycle, namely for dealing with problems that need further exploring before solutions are found. When solutions become more obvious, the question is justified whether the covenant can be succeeded by regulation again. However, public knowledge management situation and possible solutions are dynamic in practice, the capacity of covenant approach to stimulate joint learning processes remains important in many cases.

Considering the situation of Chinese knowledge management and application, the introduction of this foreign model should be to reinforce in servicing management strategies, regulation and approaches, but not a replacement all together. Especially for general knowledge management structure & objectives, it is also important to notice that:

- Service innovation optimizations can be help for more effective node connections. Thought an adjustment mechanism of the earning expectations, thereby promote regional knowledge sharing and knowledge value optimization.
- It is crucial to set-up a national intellectual property right market, and the final objective is to set-up a systematic safe and reliable interconnection of intellectual nodes with features.

Covenant model flourished in an atmosphere in which all target groups have to contribute for the national administration objectives. Within such a context that target groups realize that change and liability is inevitable. Given careful design, combinations of market mechanisms, regulation and negotiated agreements prove to be able to yield the advantages of all three while minimizing the disadvantages of each of them. Therefore a “three-strategy approach mix”, which includes negotiated agreements between governments and stakeholders, has the most favorable promise for China.

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