Adopting Process Management – the Importance of Recognizing the Organizational Transformation

Andreas Hellström^{1†} and Jonas Peterson²

¹ Chalmers University of Technology
² JMP Organisationsutveckling
E-mails: ¹andreas.hellstrom@mot.chalmers.se, ²jonaspeterson@jmpou.se

Abstract

The purpose of this study is to investigate what happens within an organization when a process view of the business is adopted. With the example of an empirical case, we aim to illustrate: how members of the organization make sense of process management; what contributions members of the organization consider to be the result of adopting a process view; and the relationship between the functional and the process structure.

The empirical base in this study is one of Sweden's largest purchasing organizations within the public sector. The results are drawn from interviews with the process owners and a survey to all members involved in process teams.

The case findings reveal an ambiguous image of process management. At the same time as process management solved specific organizational problems, it generated new dilemmas. It is argued that it is more rewarding to consider the adoption of the process view a 'social negotiation' rather than the result of planned implementation. The study also highlights that the meaning of process management is not anything given but something being created, and its negotiation and translation into organizational practice is open-ended.

Furthermore, the study gives an illustration of the conflict between the adopted process view and the existing functional organization.

Key Words: Process Management, Merger, Organizational Transformation, Negotiation, Public Sector. Sweden

1. Introduction

Process orientation in one form or another has become a feature in everyday business language if not the actions of many organizations. Organizations in different lines of business have adopted a process-based approach to managing their operations and today process management is a well-established concept. However, despite more than a decade of experience of practicing process-oriented management, certain fundamental problems still beset its suc-

[†] Corresponding Author

cessful application and cause practitioners concern.

In the present paper we argue that the discourse on process management is partly to blame for these problems in application. We think that the discourse has a tendency to be quite normative and technocratic. A general tendency in the literature is a practical orientation toward how to accomplish the promised performance improvements (Edwards et al., 2000). With a rather seductive rhetoric, many of the authors give unproblematic solutions in a normative manner (Benner and Tushman, 2003; McNulty and Ferlie, 2004). The process discourse often assumes consensus within the organization. Implicitly if not explicitly, to a large extent the literature uses a rationality based on the assumption that if only members of an organization fully understand the rationale behind the process idea, they will be eager to "get on board", e.g. (Hammer and Stanton, 1999). Many studies also tend to report on success projects, leaving the literature almost void of data concerning potential pitfalls. Reports on outcome dimensions tend to become selectively reported. This selective reporting could definitely lead to misleading conclusions about process orientation efforts and their probability of success.

Furthermore, there is a lack of literature on how to cope with the balancing between the functional and process structure (Vanhaverbeke and Torremans, 1999). The difficulties concerning the structural transformation involved in an emerging process perspective are rarely dealt with in detail.

It might seem a bit ironic that despite many authors stating that a crucial goal in striving towards process orientation is the "soft aspects", e.g. process culture or process mind-set, most authors mainly talk about the "hard aspects", e.g. process maps, techniques and structure (Lee and Dale, 1998). This technocratic bias in the literature basically assumes that simply changing the structural configuration will cause members of the organization to shed their functional mind-sets (Majchrzak and Wang, 1996).

2. The Purpose of the Study

The purpose of this study is to investigate the events in an organization when a process view of the business is adopted. What happens when processes have been identified and process maps have been drawn? What happens when new management roles are appointed for newly identified processes? And what happens when processes become more and more perceptible in everyday life, and something that everyone has to relate to in one way or another?

Our concern is to contribute to the understanding of process management from an organizational transformation perspective. With the example of an empirical case we aim to illustrate:

How members of the organization make sense of process management What contributions members of the organization consider to be the result of adopting a process view

How the relationship between the functional and the process structure is manifested

The paper begins with a theoretical section about the rhetoric of process management. The studied organization is then presented, as well as the methods used in the study. The findings are described in an interpretative manner using a mixture of both qualitative and quantitative data. Finally, there is a concluding discussion, comments on the implications of the findings and some suggestions for further research.

3. The Rhetoric of Process Management

In a situation where managers all too often find it difficult to "get things done" in fragmented and compartmentalized organizational settings (Garvin, 1998), the process approach with its focus on accomplishing tasks might seem an appealing alternative. Garvin (1998) states that "it all starts with a simple but powerful idea: organizations accomplish their work through linked chains of activities cutting across departments and functional groups".

Grounded in the drawbacks of the functional organizational structure and its poor suitability for meeting a changing business environment (Harrington, 1991; Davenport, 1993; Melan, 1993; Rummler and Brache, 1995; Keen, 1997; Garvin, 1998), the process-based approach delivers an appealing answer to how to manage the "white spaces" (Rummler and Brache, 1995) within the organization and how to be better prepared for a changing business environment. A frequently used argument in the process literature is that tougher competition in many business areas calls for an enhanced customer focus (Juran and Godfrey, 1999). Moreover, it is argued that changes today are more fundamental and frequent, and that organizations' ability to adapt to their external environment is more important than ever (Rummler and Brache, 1995). Furthermore, organizations today tend to be more and more complex, leaving the core business of the companies harder to manage and control (Melan, 1993). This calls for a better holistic understanding of the organization, explicitly how it serves its customers and how work is actually achieved. All these business trends highlight downsides of the traditional functional organization and the increased need for well-integrated processes (Harrington, 1991; Davenport, 1993; Melan, 1993; Rummler and Brache, 1995; Keen, 1997; Garvin, 1998; Juran and Godfrey, 1999). Davenport states:

Whereas an organization's hierarchical structure is typically a slice-in-time view of responsibilities and reporting relationships, its process structure is a dynamic view of how the organization delivers value. (Davenport, 1993)

3.1 Balancing Different Organizational Perspectives

In the 1990s, during the heyday of Business Process Reengineering, the rhetoric in the more radical process literature argued for skipping the functional organization and "going horizontal". In reality few organizations took the step to becoming fully process-based (Stalk Jr and Black, 1994; Boehm and Phipps, 1996; Braganza and Korac-Kakabadse, 2000). Instead there is a "design continuum" ranging from the highly departmentalized functional organization to the fully process-based organization (Boehm and Phipps, 1996). Schematically this continuum can be converted into four possible types of organizational forms (see Figure 1): the vertical functional organization, the functional organization with horizontal process overlays, the process organization with functional overlays, and the process-based organization.

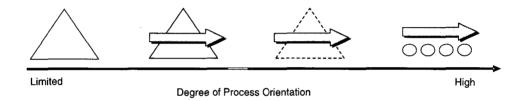


Figure 1. Four principle stages of process orientation

Studies by Stalk Jr and Black (1994) showed that two thirds of the investigated organizations emerged with hybrid organizations somewhere in the middle of the design continuum. Consequently, it has become critical to find uniquely tailored applications of the process idea to each individual company and to balance functional and process elements in their unique situation (Boehm and Phipps, 1996). So from the "either or" rhetoric of the 1990s it now has to do with ensuring that functions and processes co-exist in the best possible way (Braganza and Korac-Kakabadse, 2000).

The process literature gives few examples of how to manage this problematic balancing act. The optimal situation is of course to reinforce the best aspects of both, creating strong, functional expertise and flexible, responsive processes (Stalk Jr and Black, 1994). When the process structure becomes perceptible and leads to consequences in the organization, the functional structure must, for obvious reasons, find a new role. If the relationship between functions and processes is compared to a demand and supply relationship, each function is typically the supplier of resources of the processes. However, it is not always clear which should be subordinate to the other or how priorities are to be made (Braganza and Korac-Kakabadse, 2000).

Hammer and Stanton (1999) emphasize that functional and process management structures must co-exist in partnership, but they argue that the new process view has not been fully realized and that the hybrid organizational forms of many organizations today all too often

create a kind of "cognitive dissonance". This confused and conflict-creating state, in which the members of the organization are torn between the different management structures, undermines the performance of the organization (Hammer and Stanton, 1999). Many organizations have improved their processes, but only a few have made fundamental changes in their management. Hammer and Stanton (1999) state that the functional structure often shows a natural hostility towards integrating processes, considering them a threat to power. When the power is still inherent in the functional structure, a fundamental change in how management responsibilities are distributed must be made to support a new balance of power (Hammer and Stanton, 1999).

What is evident from the scarce literature on how to manage the balance between the two management structures is that a co-existence might be troublesome and confusing. When no general recipes for success are given in the literature, some authors argue that members of organizations must accept the fact that there is going to be tension between the functions and the processes (Stalk Jr and Black, 1994). Others call for a change of the mind-set of the business leaders and managers, so that they are willing to be responsible and mediate often contradictory and conflicting objectives (Hammer and Stanton, 1999; Braganza and Korac-Kakabadse, 2000).

3.2 Claimed Effects and Outcomes

Advocates of process management point out numerous benefits and performance improvements from process-based activities. These include reduced product development times, reduced inventory (Stalk Jr and Black, 1994), improved productivity, fewer customer complaints and a smaller number of late deliveries (Boehm and Phipps, 1996). Hammer and Stanton (1999) state that process management:

"...has enabled companies to operate faster and more efficiently and to use information technology more productively. It has improved the jobs of the employees, giving them more authority and a clearer view of how their work fits into the operations of the enterprise as a whole. It has rewarded customers with higher-quality products and more responsive service. And it has paid big dividends to shareholders, reducing companies' costs, increasing their revenues, and boosting their stock value." (Hammer and Stanton, 1999)

However, the usefulness of process management may be more limited than the process literature implies. Generally the process literature lacks high-quality empirical research with conclusive evidence of the claimed effects (Benner and Tushman, 2003; McNulty and Ferlie, 2004). In the few studies conducted, the results show no consistent benefits of working with process management practices (Benner and Tushman, 2003). One study on performance ef-

fects of process management concludes that there are no general recipes for success (Ittner and Larcker, 1997). The results show empirical evidence of a successful process management practice in one context that leads to decreased performance in another. These findings indicate the importance of an understanding of both the context and the principles behind process management as well as the ability to mutually adapt these to the situation in question.

Davenport (1993) states that there is a risk that managers will be overly persuaded or perceive only the easy or appealing components of process literature. The rush to an orientation towards processes has often been hasty and ill-considered (Stalk Jr and Black, 1994). Hence, there is a great risk that organizations will undertake initiatives that do not fit their broader organizational context (Davenport, 1993). Furthermore, Boehm and Phipps (1996) claim that process management is best suited for the already strong organizations:

Clearly, it is not a turnaround program for under-performing companies. The stress and challenges of making the transition can only be handled by companies with already strong foundations. The horizontal organization is a way to build on strengths, not make up for weaknesses. (Boehm and Phipps, 1996)

4. Method

4.1 The Studied Organization

The organization is one of Sweden's largest purchasing companies within the public sector in terms of turnover (about 650 million €). The business concept is to handle purchasing, customer service, advisory service, and logistics for the public sector. The organization has about 180 employees and is spread geographically over nine locations.

The organization was created in 1999 through a merger of three separate organizations. The new organization had to deal with three different organizational cultures. To better understand each other, as well as to create a new organizational environment, ideas about process orientation were introduced. In March 1999 the management team began working with process mapping and shaping an initial process structure. The organization has identified nine processes. Four of these are labelled "core processes" (e.g. "purchasing products", "supplying products") and generate direct value for external costumers. The other five processes are labelled "supportive" (e.g. "assess results", "organize and support the business") and support the core processes. The established process structure consists of a process council that manages general process development issues on an organizational level. The members of the process council are the managing director, the functional managers, and the process owners. The responsibility for the processes has been distributed among eight process owners. Of the eight, all but two also act as functional managers. Aside from process own-

ers the process structure includes sub-process owners (16) with a decentralized responsibility for parts of the process, and process team members (32). These teams have operational responsibility for the improvement of the assigned processes. This established process structure exists alongside the present functional organization.

4.2 A Multi-Strategy Research Approach

A combination of methods and data sources was used to gain a holistic understanding of the phenomenon under study (Jick, 1979). The advantage of this approach is the possibility it offers to analyze questions from different perspectives in order to stimulate creativity and theory development. In addition, the different methods mutually strengthen each other. Following the advice of Strauss and Corbin (1998) we would like to think in terms of an 'interplay' between qualitative and quantitative methods and consider the different methods as complementary. The term multi-strategy (Bryman, 2001) can be used in the kind of combinations of quantitative and qualitative research methods in a single project of which this study is an example.

This study is based on an interpretative approach and leans towards the qualitative research strategy, commonly associated with e.g. contextual understanding, meaning of actions taken and rich data.

The qualitative data were obtained through semi-structured in-depth interviews with the organization's eight process owners. This group has been used as a proxy for investigating the phenomenon, where they have been used as "reporters" from the organizations. Each interview lasted for 50-70 minutes. All interviews were recorded and transcribed literally. Through the semi-structured interviews we tried to discover how the phenomenon was manifested and how the interviewees made sense of it.

The quantitative part of the study was used to study different aspects of the phenomenon and was mainly designed to provide information about the degree to which there was a consensus among members. The survey was designed with the purpose of capturing the respondents' attitudes towards the process initiative and their own experiences.

The quantitative data were based on a postal survey to all members officially involved in the process structure (process owners, sub-process owners and process team members). With the involvement of all members of the process structure, the expectation was that we would obtain rich and nuanced data because of their deeper knowledge and experience of process work. A total of 66 individuals were questioned (response rate 85%). Anonymity was assured and participation was voluntary. Analysis of non-respondents showed no reason to assume any biased perspective among the respondents.

The data analysis began with a detailed examination of the transcripts (Silverman, 1993). A cognitive map was developed to identify significant concepts and patterns within the data. This procedure was influenced by principles recommended by Strauss and Corbin (1998). To

enhance and ensure consistency of the themes generated, topics from the survey data and documentations were added.

To verify the results, a follow-up group interview was conducted with two members of the management team responsible for the development of process orientation, where the general themes in the findings were presented and discussed. The respondent's explicit recognition of the analysis and conclusions drawn from the research is seen as a validation.

5. Findings

The data analysis revealed a range of insights into how the process phenomenon emerged and developed. Aspects which on a superficial level seem simple often hold several individual viewpoints and complexities that, not surprisingly, differ from what theoretical models explain. The findings will be presented in a combination of data from interviews with the process owners and survey responses. Direct quotes from the interviews are given in quotation marks.

5.1 Images and Effects of the Process Initiative

A common opinion about the reason for the initiation of process management is that it could prove useful in facilitating the merger of the three organizations. Many of the interviewees mention that the leading principle was to create "a single organization" with common language, rules and values. The process work helped bring the organization cultures closer together; "the processes are of course what unites us". In this matter they all more or less agree that the process perspective has been an efficient method. The process work is highlighted as "a neutral merger tool", used to create a shared image of the joint way of working which does not necessarily have its origin in any of the three previously separate organizations.

A closely related issue is what purpose the process work really serves in the organization after the process structure has been established. This issue provoked a great many different thoughts and ideas, somewhat reflecting a state of uncertainty and lack of direction. On a general level, however, many mention similar aspects, e.g.; "to get an overall image", "to give everybody the possibility to go with the flow in the organization", and "to act as a rulebook or a helping hand". By creating a common image of the business, the employees are also considered to be given the opportunity to understand the effect of their own work on others.

There is a relatively large consensus regarding the reason and purpose criterion that justifies the process work. Several individual viewpoints are mentioned but the most important of them are the holistic focus and concordance.

The survey covered statements regarding the respondents' attitudes. Table 1 below shows the frequency distribution and descriptive statistics for each specific statement. The process work is considered constructive and valuable. With a mean value of 4.32 and about 90% agreement with the statement "process work is something positive", it can be concluded that the attitude towards process work is very positive. Furthermore, it seems that the process work has yielded distinct results and met perceived needs in a fairly satisfying way.

	Don't agree	2	3	4	Fully agree	Mean
The process work is something positive	1	1	3	25	26	4,32
The process work yields distinct results	-	7	13	31	5	3,61
The process work meets current needs	1	7	10	31	7	3,64

Table 1. Frequency distribution of responses to three statements (N=56)

This positive image is however given greater nuance when perceived results are compared with invested resources. Table 2 below shows that the population is divided into three groups of more or less the same size. Only slightly more than one third of the respondents think that the process work has been worth the invested resources.

Table 2. Respondents' view of whether the process work has been worth the effort (N=56)

Do you think the process work has been	worth the effort?	Frequency	Percent
	Yes	20	35,7
	No	17	30,4
	Don't know	19	33,9

This tendency to consider the process work as something positive but also raise questions about its efficiency is apparent in the interviews. Besides the usefulness in facilitating the merger, other effects generated by the work with processes are:

better order of activities,

better overall picture of the business,

better understanding of the impact of the individual's own work on others in the work chain, well-documented work instructions,

help in troubleshooting,

a joint way of working.

However, several accentuate the fact that there is a lack of directly measurable effects. One deficiency in the process work is the absence of real financial effects or positive ef-

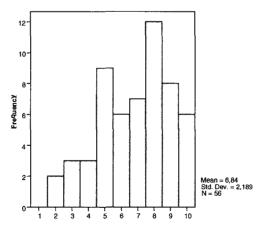
fects on costs of poor quality. One interviewee describes it as a demanding initiative stating "I hope we have reached the peak and that it will be downhill from here on" in the question of hoping that the results will soon become visible.

In many ways they express hope that the time-consuming and resource-demanding process initiative will bring greater benefit in the future. Although everyone is generally pleased with the situation and no one feels a need for further major changes (some even say that they are more or less finished with the development of the processes according to their present personal objectives). The benefits brought by the work with processes in the merger perspective are obvious to everyone and it seems to be an effective tool in merging the organization. Opinions differ however when it comes to other improvements expected at the initiation of process management.

A common opinion in the organization is that the process initiative has slowed down. One stated reason for this is resource-demanding and time-consuming work and a lack of measurable improvements. In a vision of the future some hope that a possible certification according to the ISO 9000:2000 quality standard and the introduction of a new IT-based document management system will have a catalytic effect on the process work and that these technological solutions will clarify the process view of the business and establish it more firmly.

5.2 The Tension between Functional and Process Perspectives

The results of the survey question as to what degree a conflict exists between the functional and the process perspective within the organization uncover a definite conflict. On a scale from 1-10, the mean value is 6.84 and the most common response is 8 (see Figure 2).



Note: Scores on a ten-point scale from 1 = "not at all" to 10 = "very high"

Figure 2. Degree of conflict between functional and process structures in organization (N=56)

The interviews reveal a complex picture and express many different thoughts about this relationship. Despite an official position concerning the relationship between the functional organization and the processes that states that the processes should be subordinate to the functional departments, the interviews gave a much more diversified picture of this relationship. Some emphasized that the main purpose of the functional organization was to "organize the employees and to supply the processes with competence", arguing that the functional departments should be subordinate to the processes. Others see the processes as supporting the functional organization, in which the processes have a more distinct responsibility for development and improvement.

Nevertheless, the relationship depends not only on these two perspectives but is also affected by existing contextual factors such as financial systems and IT systems. One of the interviewees highlights this by stating that: "the process will of course have the right to make changes and drive development. However, the money and the budget both lie in the functional organization".

The problem of keeping the two perspectives apart is also reflected on a personal level. The interviewees' opinions about the roles and responsibilities of the process owner and the functional manager show a spectrum of opinions. Some emphasize that having the same person in both roles may be an advantage in terms of simplifying the solution of problems, as long as that person has a clear picture of the different perspectives. Others believe that having the same person responsible for both perspectives represents an unsolvable complexity and argue that the functional perspective will always be given priority to the disadvantage of the process - "being so absorbed by the functional thinking, it is easy to forget the process when actions are being taken". For various reasons, issues tend not to surface as "these two responsibilities would come into conflict with one another if you were to take on both roles simultaneously". These interviewees emphasize the advantage of having two different persons shouldering the roles, making it possible to have creative discussions on the basis of different experiences and perspectives.

As can be seen, opinions concerning the relationship between process and functional organization diverge. It is apparent that many of the problems derive from issues about responsibility and authority, which in some cases can be seen as obstacles to the process development.

The indistinctness and disunity in the balance and the interplay between the processes and the functional organization in the business are manifested by issues being passed along in the wrong direction, by giving contrary orders, by creating parallel documents, and by "everybody blaming everybody else".

The tension between the functional and process perspectives is further emphasized in the description of the how the process idea was first introduced in the organization. It initially generated a great deal of debate on the management level. One important topic had to do

with the key role of the process owner. Who should be selected? What authority should come with the new role? Questions were raised about whether the new role should take over essential parts of the responsibilities traditionally held by functional managers. Until these questions were solved, the title of "process owner" was not "appropriate" in the organization. The issue was so sensitive that it had to be solved before the process initiative could get started at all. As a compromise, the new roles had to be given less threatening titles in the organization. The new roles were thus christened "Responsible for Process Development". After a while, when the process work had become more established and accepted as an idea, a majority of those in the management team were appointed these new leading roles in the process structure. During this transition, the titles were also changed to be called "process owners".

6. Concluding Discussion

The organization under study here is an interesting research case since it is considered neither a very successful application of process management nor a failure. In theoretical explanations, arguments are often presented as dichotomies. A closer look at the practical applications in the studied organization reveals an image full of ambiguity and nuances. There are both a number of dilemmas and many successful experiences. Process management was introduced in the organization in order to solve specific organizational problems. However, at the same time, it generated new organizational problems. It may seem natural to conclude that process management suffers from a simple rhetoric but is a difficult practice.

It is evident that many different images of process management coexist within the organization; they change both with time and between individuals. Besides questioning the correctness of the more or less assumed consensus described in the process literature, this situation also highlights the importance of understanding and describing this diversity.

Vagueness in an idea is often described as complicating organizational change since the changes hold so many different notions and interests. Looking at the present study, process management was at first nothing more than an appealing idea for how to better describe the process of accomplishing work in the organization, a "description" that was also supposed to make the merger easier. Process management was gradually fabricated in the course of its development: process teams were created, process maps were drawn and new roles were appointed that had the responsibility for the new organizational perspectives. The idea gradually grew into something that was able to change the organizational and managerial practices.

The reported effects of the process initiative are well-known effects of the process mapping activities. These often concern such aspects as a common language and a better overall picture – and not as much things that have to do with distinct measurable improvements. A possible explanation is that it is still these effects that are the most perceptible, and that the improvements achieved by the processes are more than somewhat vague.

Nevertheless, it is noteworthy that the merger of the three organizations seems to have been very successful. With process mapping as a "neutral tool", the potential conflicts between different organizational cultures were neutralized.

It is evident that process management challenges traditional notions of the functional organization since it might be seen as a criticism of the present way of working. With a firmly established process orientation it is obvious that the existing power structure might feel a threat of losing power, prestige and influence. We argue that it is more rewarding to consider the adoption of the process view as a social negotiation rather than the result of planned implementation under centralized control. The interviewees describe an implementation with numerous controversies, debates and compromises. This might be a result of resistance or an absence of the necessary knowledge to make sense of the process view. The existing power structure in the organization has played a key role in this complex process of mutual alignment and negotiation, e.g. the reactions to the title of "process owner" and who should be appointed. By letting those in power have the preferential right of interpretation, the risk of conflict was reduced, which led to a "smoother" implementation. On the other hand, it also delimited the possibilities of what process management could be. A reasonable explanation for lack of improvements might be that process management was interpreted as and negotiated into something less useful.

7. Implications and Suggestions for Further Research

We have highlighted the dimension of organizational transformation in process management initiatives and acknowledge that social and organizational order is negotiated rather than simply being imposed from above. Furthermore, the paper highlights our conviction that the meaning of process management is not anything that is given but that is something that is created, and that its negotiation and translation into organizational practice is open-ended.

The rhetoric in process management discourse that sometimes makes things seem so unproblematic may cause unreasonably high expectations among practitioners. A more reflective approach that shows the consequences and implications of the methods, and that recognizes that process management has to do with changing the way the organization works would probably better put the ideas into good currency.

We further argue that a change in the discussion towards a more nuanced debate in which all implications are seriously considered, e.g. handling the co-existence of different organizational perspectives and dealing with the human aspects of the organizational transformation, will offer benefits for both theory and practice. This highlights the importance of

empirical research in this direction. The present paper has drawn attention to the importance of studying the gap between theory and practice. We believe that further research on the diffusion of process ideas and its various manifestations in organizations will generate knowledge that is important both to practice and to theory development.

References

- 1. Benner, M. J. and Tushman, M. L.(2003), "Exploitation, Exploration, and Process Management: The Productivity Dilemma Revisited," *Academy of Management Review*, Vol. 28, No. 2, pp. 238-256.
- 2. Boehm, R. and Phipps, C.(1996), "Flatness forays," McKinsey Quarterly, No. 3, pp. 128-143.
- 3. Braganza, A. and Korac-Kakabadse, N.(2000), "Towards a function and process orientation: challenges for business leaders in the new millennium," *Strategic Change*, Vol. 9, No. 1, pp. 45-53.
- 4. Bryman, A.(2001) Social Research Methods, Oxford, Oxford University Press.
- 5. Davenport, T. H.(1993), Process Innovation: Reengineering Work Through Information Technology, Boston, Mass., Harvard Business School Press [for] Ernst & Young Center for Information Technology and Strategy.
- 6. Edwards, C., Braganza, A., and Lambert, R.(2000), "Understanding and managing process initiatives: a framework for developing consensus," *Knowledge and Process Management*, Vol. 7, No. 1, pp. 29-36.
- 7. Garvin, D. A.(1998), "The Process of Organization and Management," *Sloan Management Review*, Vol. 39, No. 4, pp. 33-50.
- 8. Hammer, M. and Stanton, S.(1999), "How Process Enterprises Really Work," *Harvard Business Review*, Vol. 77, No. 6, pp. 108-118.
- 9. Harrington, H. J.(1991), Business Process Improvement: The Breakthrough Strategy for Total Quality, Productivity, and Competitiveness, New York, McGraw-Hill.
- 10. Ittner, C. D. and Larcker, D. F.(1997), "The Performance Effects of Process Management Techniques," *Management Science*, Vol. 43, No. 4, pp. 522-534.
- 11. Jick, T. D.(1979), "Mixing Qualitative and Quantitative Methods: Triangulation in Action," Administrative Science Quarterly, Vol. 24, No. 4, p. 602.
- 12. Juran, J. M. and Godfrey, A. B.(1999), Juran's Quality Handbook, New York, McGraw-Hill.
- 13. Keen, P. G. W.(1997), *The Process Edge: Creating Value Where It Counts*, Boston, Mass., Harvard Business School.
- 14. Lee, R. G. and Dale, B. G.(1998), "Business process management: a review and evaluation," *Business Process Management Journal*, Vol. 4, No. 3, pp. 241-225.

- 15. Majchrzak, A. and Wang, Q.(1996), "Breaking the Functional Mind-Set in Process Organizations," *Harvard Business Review*, Vol. 74, No. 5, pp. 93-99.
- 16. McNulty, T. and Ferlie, E.(2004), "Process Transformation: Limitations to Radical Organizational Change within Public Service Organizations," *Organization Studies*, Vol. 25, No. 8, pp. 1389-1412.
- 17. Melan, E. H.(1993), Process Management: Methods for Improving Products and Service, New York, McGraw-Hill.
- 18. Rummler, G. A. and Brache, A. P.(1995), *Improving Performance: How to Manage the White Space on the Organization Chart*, San Francisco, Jossey-Bass.
- 19. Silverman, D.(1993), Interpreting Qualitative Data: Methods for Analysing Talk, Text and Interaction, London, Sage.
- 20. Stalk Jr, G. and Black, J. E.(1994), "The myth of the horizontal organization," *Canadian Business Review*, Vol. 21, No. 4, pp. 26-30.
- 21. Strauss, A. L. and Corbin, J.(1998), Basics of Qualitative Research: Grounded Theory Procedures and Techniques, Newbury Park, Calif., Sage.
- 22. Vanhaverbeke, W. and Torremans, H.(1999), "Organizational structure in process-based organizations," *Knowledge and Process Management*, Vol. 6, No. 1, pp. 41-52.