

## **People aspects, an undervalued area in the procedures of business process management**

Juhani Anttila  
*Academician, M.Sc. (Electrical  
Engineering)*  
International Academy for Quality  
Aalto University, Department of Industrial  
Engineering and Management  
[juhani.anttila@telecon.fi](mailto:juhani.anttila@telecon.fi)  
Rypsikuja 4, FI-00660 Helsinki, Finland

Kari Jussila  
*M.Sc. (Physical Electronics), M.Sc.  
(Economics)*  
Aalto University, Department of Industrial  
Engineering and Management  
[kari.jussila@aalto.fi](mailto:kari.jussila@aalto.fi)  
P.O. Box 15500, FI-00076 Aalto, Finland

### **Abstract**

Business systems consist of interrelated processes and business structures. Performance of the processes is of the greatest strategic and operational importance in affecting organizations' business results, competitiveness, and sustained success.

Process management concepts are discussed in a business minded way, and a holistic approach to business processes and their management focusing especially on people aspects is presented in this paper. A critical issue for process performance and process management is the behavior of individual human performers, both employees and managers, and how they understand the overall aims and their roles in the process scope within the larger business context they are involved in.

The approach of this paper is business pragmatism combined with relevant academic studies based on the authors' long-term experience both as business and standardization practitioners, and involvement with academic research. Practical results are grounded in the ontological and epistemological foundation, and linked with business reality.

**Keywords:** Business process, Management, People aspects, Quality

### **Introduction**

Business systems of all organizations consist of interrelated processes and organizational structures. Performance of the processes is of the greatest strategic and operational importance in affecting organizations' business results, competitiveness, and sustained success (Rummler&Brace, 1990). All business results are achieved through managing business processes. All mutually value adding interactions and transactions between an organization and its stakeholders take place through processes.

Quality management and the other specialized managerial disciplines are realized in the business-integrated way through managing business processes (Anttila, et al. 2012). Also the quality of public services and quality of the society at large are originated in the processes of different organizations within the society (Anttila, 2004).

People are the most significant resources in the organizations' business processes, in the roles of business leaders, managers, and employees (workforce, workers, process operators, process performers, etc.). Human activities in business processes have a central role in the realization of quality in organizations through producing products (goods and

services) that effectively and efficiently fulfill the customers' needs and expectations (ISO, 2005/8/9).

Process management is a comprehensive issue of business management; it takes place at different organizational levels and involves application of multidisciplinary principles and practices.

We have considered business processes, process management, and their results (products) in a broad sense in separate papers (Anttila&Jussila, 2012a; Anttila&Jussila, 2013a; Anttila&Jussila, 2013b). Now in this paper we focus on human perspectives, the key issue of business process management, with an emphasis of quality management. The behavior of individual human performers, both employees and managers, is a critical issue for process performance and process management, and in particular, how those persons understand the overall aims and their roles in the process scope within the larger business context they are involved in.

### **Process concept and process-structure dichotomy**

The word process is old and derived from Latin *processus*, "process, advance, progress," to the meaning "course or method of action", and particularly in the sense of "continuous series of actions meant to accomplish some result". Process concept is also defined very similarly for business purposes by the international standardization (ISO, 2005/8/9) as "set of interrelated or interacting activities which transforms inputs into outputs".

Although these dictionary and standards definitions are quite clear, there are a lot of ambiguity and imprecision in the use of this term in practical organizational applications. The process concept is often confusingly mixed with related organizational structures or appliances. The standard definition also makes a clear difference between process and procedure, the latter meaning "specified way to carry out an activity or a process". These concepts has been often intermingled with each other. Business projects are singular processes for unique business tasks (ISO, 2005/8/9).

Processes in general adhere to all kinds of productive doing, activities or operations performed for a certain purpose by living beings, or by mechanical or automatic means.

Process-structure dichotomy is a very essential and difficult topic in managing business processes. Factually, at a given point of time organizational operations are dynamic and dualistic compositions of process and structure (Anttila&Jussila, 2012a; Anttila&Jussila, 2013b). This is analogous to the well-known philosophical principles of mind and matter/body (Descartes), and emptiness and form (Buddhism). Process and structure are not separate in organizations, and we should deal with both of them at the same time. They cannot be replaced by each other. Processes have always a primary role in business cases. Structures must support the process. Importance of structures should be considered individually in each process case, and particularly the nature of the business and human contributions in process activities should be taken into account.

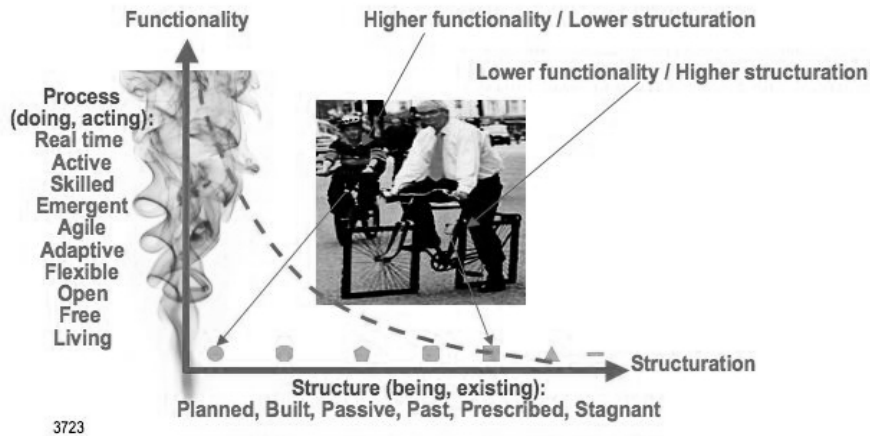


Figure 1. Process-structure polarity may lead to managing dilemma: A proper balance between process and structure. This requires trade-off decisions between freedom and control, awareness and instructions, people and systems, and proactive and reactive approaches (Anttila&Jussila, 2012a).

Typical structures in business operations with regard to processes consist of buildings, physical gadgets, technical systems, standardized procedures, etc. Also the word infrastructure is used in this context (ISO, 2005/8/9). These may have important influence on people working in business processes. There are recognized principles and practices, e.g. 5S methodology (Encyclopedia, 2012; Imai, 1986), for arranging work place structures.

Today people are working with the information technology (IT) (software and hardware) (Brown et al., 2000; Holopainen et al., 2001) in many process activities. Also many human activities within business processes have been replaced by automatic IT solutions. Process automation is a challenge for the development of business processes and their management. SOA (Service Oriented Architecture) applications (Brown et al., 2000) have been developed for automating many manual and paper based people activities of business processes. Cloud computing (Arina&Viitamäki, 2011) is a new technology that drives the change of organizational practices, culture, and people behavior. As companies decentralize various business areas, including IT, R&D, marketing, and sales processes, they empower a new form of organization, “the company as a cloud”, to emerge, and remarkable parts of the business processes will operate in clouds. Also all employees and leaders should adapt to these conditions. This also means e.g. the enhancement of people empowerment.

### **Role of people in business processes**

Human beings are the most important resources and actors in all business processes. The most important business process activities are human activities. However, we have found that people issues are considered inadequately in most business process management references. In this context, process activities of employees, role of business leaders, and position and responsibilities of process owners are central issues. The role of people in business processes has varied in the course of time.

The oldest business processes were the work of farmers and craftsmen. Also the ancient collaborative group work was carried out as human processes (figure 2).

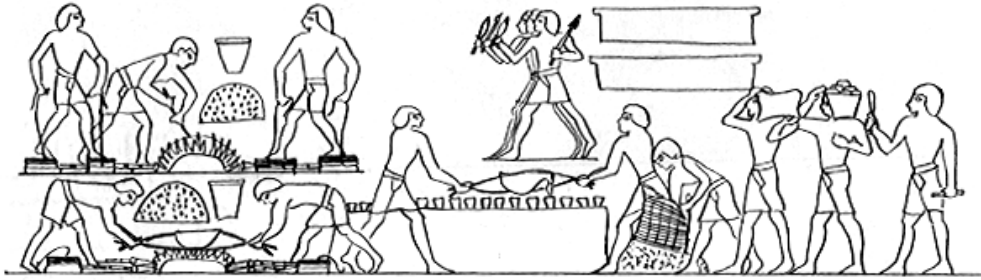


Figure 2. An ancient bronze casting process in about 1500 B.C. (Collins, 2011)

Later the importance of machines increased in order to improve efficiency of the work. The industrialization created Taylorism and Fordism (Degan, 2011; Internet Center, 2010) and the concept of scientific management that changed the nature of work in processes. The human work was mechanized in manufacturing processes.

Forcing people to work mechanically produced a counter-reaction, however. Business researchers and leadership began to pay attention to human factors in the management of organizations (HealthKnowledge, 2011). These developments also resulted in the emergence of a special human resource management (HRM) discipline about a hundred years ago. HRM experts, however, consider the issue as a business function and not from the business process point of view (Heathfield, 2013; IIP, 2013).

Today's top business researches, thinkers, and teachers (Crainer&Dearlove, 2011) at least implicitly recognize people aspects and business processes, but these topics are not handled explicitly as integrated topics in their writings.

Organizations have invested in various IT solutions for enhancing efficiency of business processes. However, from the people point of view, these solutions have been problematic (Collins, 2001). IT applications with data sources, systems, and applications located throughout the organization have often made the work of people in processes more complex and difficult rather than simplified their work. Corporate-wide IT systems and intranets are often complex and designed for a specific purpose and function of processes, hence it is required to deploy different and often unrelated applications and IT modules to meet the needs for information and processing of the different business processes and the entire organization. A lot of training is needed for employees to learn effectively use such a complex suite of applications in order to complete the assigned responsibilities. IT solutions subjugated the human activities to the computer operations. Nowadays, even human processes are forced to operate according to formal flow diagrams that even are supported by computerized management systems.

In modern business environments, e.g. due to global business networking and ecosystems, however, again the human aspects should be more emphasized. A reason is the complexity of the business environment and business processes (Stacey, 2002) that cannot any more be managed only through rational and fact based means but more and more flexibility, tacit knowledge, and creativity of empowered people is required. New possibilities of the interactive IT, especially social media and cloud services, have

reinforced this development. In these environments the major part of work has become non-routine in many processes (Albanesi et al., 2013), and more work is un-programmed that no longer follows the orthodoxies of tightly scripted business processes. Also the inclusive growth has been set as a requirement of the success of the organizations and society of the future (EU, 2013). That leads to enhanced collaborative cooperation of people.

## Human tasks in managing business processes

### *Organization-wide process management and business leadership*

A comprehensive system of business processes covers the whole organization, and all business activities and work in organization is done through those processes. Business systems consist of networks of interlinked business processes.

Management covers all organizational activity levels and all business processes from top management to management of operational activities and individual self-management of employees (figure 3). All management activities are strongly personalized issues.

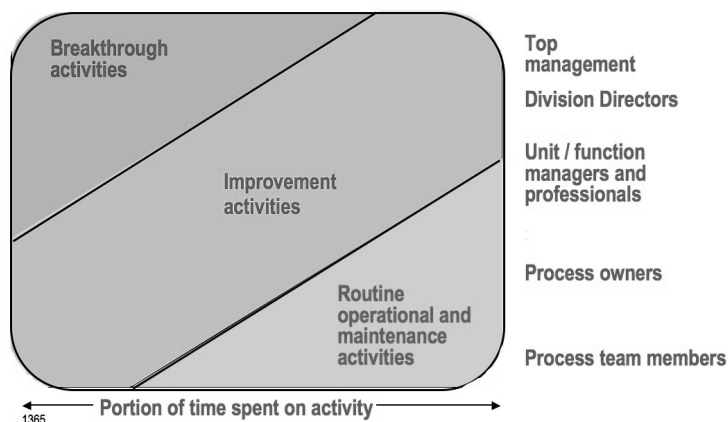


Figure 3. Organizational management covers activities and responsibilities over the whole organization (Soin, 1992)

The major management responsibilities, strategic and operational management, are different from each other; the strategic one focuses on managing the network of interlinked business processes (i.e. the whole business system), and the operational one on managing single processes and projects. The main challenge of the strategic management is how to change the organization and its performance towards the business vision, and that of the operational management of the business processes is to ensure and assure the fulfillment of the current business requirements (figure 4). Additionally, we should have organization-wide normative management activities and people self-management, which include inter alia general process related principles and practices to be applied in the whole organization, and the process awareness that is required from the employees. We have developed a business infrastructure model (Anttila, 2012) for a corporate-wide management purposes that includes four management levels:

- Normative corporate level – The responsible person, corporate CEO or president, in collaboration with the board of directors and selected experts
- Strategic business level – The responsible person, general manager of the business unit in collaboration with other managers of the unit and selected experts
- Operational process level – The responsible person, the process owner in collaboration with the process team(s)
- Individual personal and team level – The responsible person, performer, team member or employee him/herself



Figure 4. Emphases of the strategic management (Process and structure change: Top→Down) vs. operational management (Operational target promise and report: Bottom→Up)

Process management implies how the business objectives are carried out through the business processes. A well-known and simple model for all management levels is the PDCA (Plan - Do - Check - Act) model (Walton, 1990). In organizational environments the PDCA model should be applied in three different management scopes that we call as “Triple” PDCA model (Anttila&Jussila, 2011b):

- Control (ISO, 2005/8/9)
- Operational improvements including prevention (“Kaizen”) (Imai, 1986)
- Breakthrough improvements (Juran, 1964; Shiba&Walden, 2006)

A key challenge to the leaders and managers is that the feedback loop of PDCA management should be much faster than the business processes' response time. According to Ashby (Ashby, 1957), a “requisite variety” of the management must be higher than the variety of the system or process being managed. This law of requisite variety wants to say that the management and the business processes need to be sufficiently adaptable to cope with a changing environment. We have noticed that a responsible business leader or manager, who does not have such a variety enough, either executes quasi-management (a weak leader) or his/her own personal intrigues (a strong leader) without reasonable reflection. An organization whose structure is too rigid faces potential danger if its market changes or even disappears.

In general we have recognized two operational approaches that seem to be contradictory but that factually complement each other, i.e. agility and maturity approach (Agility Alliance, 2001):

#### Agility approach:

- Individual activities and interactions
- Working solutions
- Customer and stakeholder collaboration
- Responding to change and continuous learning

#### Maturity approach (SEI, 2012):

- Formal processes diagrams and tools
- Comprehensive documentation
- Contract negotiation
- Following a plan

Business process viewpoints are important in both of these approaches, but the maturity approach emphasizes structural aspects and the agility approach human aspects. This agility-maturity dilemma can be solved at the conceptual level by understanding that if you are mature enough in thinking and understanding you may operate effectively in an agile way (LaoTsu, c. 500 BC), and at practical level by applying suitable agility methodologies.

According to our experience, the most practical documented information to support business leaders, process owners, and process workers in the organization wide management of business processes consistently consists of:

- Business process framework for describing the whole system of business processes within an organization (Anttila&Jussila, 2012a)
- Business process catalogue listing all the business processes used in the business in a systematic way and according to the process framework
- Procedure document (ISO, 2005/8/9) defining the principles, responsibilities, structures, and practices being used for process management implementation and its development organization-widely
- Process plans for defining each single business process. Process plan is a practical tool for managing a process. It provides a link from the corporate strategic targets to the operation and development of the business processes, and collects all the facts that are needed for managing the process in question.

#### *Strategic management*

Strategic management of an organization is strongly personalized by the responsible business leader(s) and it depends on their personal abilities and desires, and their general and multidisciplinary and contextual awareness (figure 5) (The Performance Group, 1999).

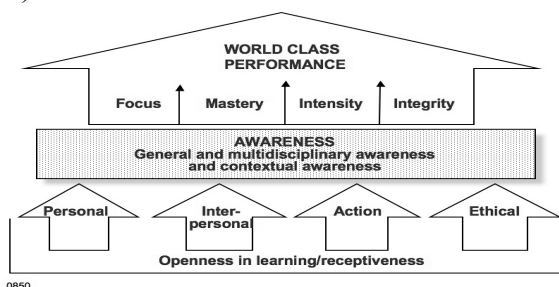


Figure 5. Business leaders personality's influence for achieving the managing mastery

Strategic management process (figure 6) is striving for the whole organization's business success in the future, and interest is in particular given to change management. It handles with the whole organizational process system and its strategies and targets that are derived from the business vision and organization's internal and external position in its operational environment.

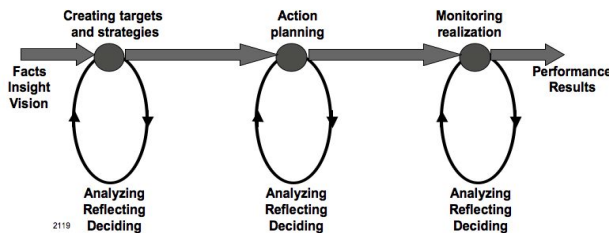


Figure 6. Strategic management process consists of information based activities and decisions.

For strategic performance management we have used a balanced strategy card (BSC) methodology that we have developed from well-known balanced scorecards (Kaplan&Norton, 1996), Hoshin Kanri methodology (Soin, 1992) and some other elements. We have used this methodology for cascading strategic targets and means down to the operational business units and processes by applying practices of Hoshin Kanri, and assigned the personal accountabilities and responsibilities. With this approach we ensure the genuine contribution and commitment of the top management and also effective “Catch ball” communication between the corporate leaders and the operational managers.

### *Operational management*

Operational management in organizations takes place in the individual business processes. The scope of managing individual processes consists of process planning, control of the operation, performance improvement, and quality assurance. In our approach, the foundation for a process management is the process plan (Anttila&Jussila, 2012a), performance assessment and auditing, monitoring process performance indicators, and controlling and improving the performance.

Process owner is the key person in managing a business process operationally. In fact, there can be no process management without a process owner. He/she is responsible for drafting the process plan to be accepted by the responsible manager. One of the most difficult questions in practice is the clear understanding of the roles and relationships of process owners and line managers, and there is no standard solution. There is always a potential risk of conflicting interests between their roles. Chances to prevent and resolve these conflicts in an effective Win/Win-manner depend basically on the clarity of responsibility definitions, procedures of compensation, rewarding, incentives, and on coherent understanding the process concept.

We have considered the role and responsibilities of process owners and relationships with the business leaders as an important topic in the process management procedure document of the organization.



Process owner's tasks include:

- Updating and maintaining the process plan
- Managing process interfaces
- Promoting common learning and cooperation of people within the process
- Acquiring tools and other means for the process and ensuring their effective use
- Maintaining relationship with process customers
- Monitoring and controlling process performance, and rectifying problems
- Managing performance improvement within the process
- Acquiring necessary resources for the process from the organization or outside
- Informing business management and interested parties on needs, current performance and improvement of the process
- Initiating recognition and rewards to the process people
- Planning and controlling process budget

In order to be effective in his/her work, the process owner should have the rights of:

- Reporting to the relevant business manager
- Vetoing and suggesting improvements over functional borders
- Attending the board of business directors as necessary

These tasks require the following personal characteristics:

- Being aware of and understanding the organization's business
- Holistic understanding of the process and the practices of process management
- Human relationship ability within the process and with its interested parties
- Management and leadership ability and strength

Responsibilities of business leaders (e.g. a business unit director) for process management consist of:

- Bearing accountability of the performance of the whole business and taking strategic responsibility of the whole system of business processes
- Supporting processes, e.g. relating to all necessary process resources, and to the continual improvement of the process performance
- Acting as superior of the process owner, e.g. conducting performance evaluation from the whole business point of view

## **People in process activities**

### *Elementary human processes*

Basic human work activities that exist in all organizations can be called as “*elementary processes*” (Anttila&Jussila, 2012a). They typically include:

- Working for something
- Moving people, material, or information
- Interacting or communicating

When the elementary processes within an organization are linked with the activities in machines, information technology, and software for achieving organization's business results, one can talk about *business processes*.

Human work is a kind of process activity that is very essential in all business processes. According to Nishibori, Japan, and O'Toole, USA (Kondo, 1989), modern concept of work emphasizes three main elements of human work: Creativity (thinking), physical

activity (doing something), and sociality (sharing pleasure and pain with colleagues). Nishibori especially defines joy as a quality characteristic of these three work elements. This can also be considered as a very natural way of understanding work, and it has roots in old traditions, too. As an example, the Inkas (1200-1530) had three basic concepts as the foundation for their society: Lankay (work), Yachay (knowledge), and Munay (love). These elements hang together by Ayni (reciprocity) (Millenium, 2005). These principles are still used in Peru, and they seem to be very modern process issues.

Thinking, imagining, seeing, listening, hearing, and feeling are natural human processes, and they are always present at business processes. They are not fully structureless because they use the structures of human senses and brain. In Eastern countries, people have a statement of wu-wei (Japanese "non-doing") for an effortless action (Reninger, 2012). Wu-wei refers to behavior that arises from a sense of oneself as connected to others and to one's environment spontaneously. Typically skilled craftsmen operate in this way.

Well-being (RCA, 2011) and inclusive growth (EU, 2020) are big challenges to organizations' business processes as well as in the processes of the whole societies.

### *Human somatic and mental processes*

A critical issue for process performance and process management is the operation of individual human performers, both employees and managers, and how they understand their roles in the process scope and the overall aims of the process within the larger business context. In order to avoid adverse personal effects and problems in interpersonal collaboration, the person's business process activities and his/her somaesthetic, mental and spiritual processes (figure 7) should not be in conflict with each other (Shusterman, 2011).

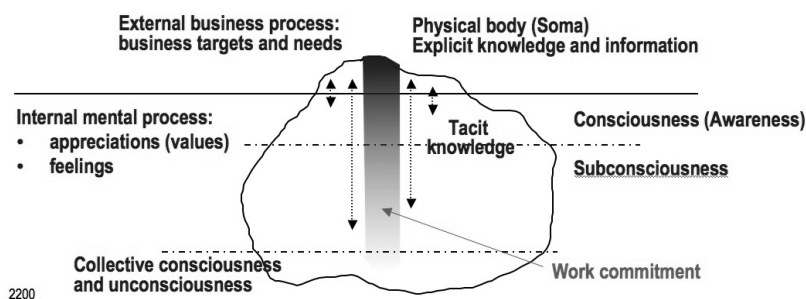


Figure 7. Process performer's internal mental and spiritual processes interact with his/her physical activity and the organization's business process.

A person is directly involved in business process activities through his/her physical (somatic), mental, and spiritual nature, and related capabilities and capacity. The knowledge of one's bodily dimension must not be ignored when managing business processes. Recognizing the body's complex ontological structure as both material object in the world and intentional subjectivity directed toward the world, not only the body's external form or representation should be concerned but also its lived experience. Somaesthetics aims towards improved awareness of our feelings, thus providing greater

insight into both our passing moods and lasting attitudes (Shusterman, 2011). Also the most advanced technologies of virtual reality of today's business processes are experienced through the body's perceptual instruments including our sensory organs, brain, glands, and nervous system. Recent process management principles do not deal enough with the ontology and epistemology of pain at work, and its psychosomatic mastery and transformation into pleasure. Also somatic and mental diseases, and accidents may cause harmful effects in business processes, particularly if they have not adequately been recognized and managed.

The situation at the workplace can develop particularly difficult to the employee, if he/she shall suffer a bullying at work. Bullying can be due either to the work or the personal matters. Bullying experience may be very comprehensive and touching. It is all the time in mind, and mentally heavy situation reflects to work and family relationships. The experience may embody desolation and is intertwined with many individual feelings including shame and guilt. (Tuomola, 2005)

Successful organizations have recognized human aspects deeply in their work and process procedures (Kondo, 1989). As an example, we can mention Toyota's Kata approach (Rother, 2010). A great challenge is to take into account the restricted capabilities of handicapped and migrated persons.

### *Process awareness*

Process awareness is an essential topic for realizing business process management in practical cases. E.g. conflicts of interest between business line managers and process owners may be due to the insufficiency of process awareness.

The awareness is not at all a simple issue (Anttila et al. 2007). It is a profound totality of physical, psychological, and philosophical aspects of sensations, perceptions, ideas, attitudes, and feelings related to an individual or a group having knowledge of the business processes and their management, at any given time, or within a given time span (Block, 1995). Trust is an important aspect among process people that is based on awareness (Blomqvist&Ståhle, 2000). In time dimension, developing knowledge and learning become important factors. Process people have different depth levels of intellectual behavior and knowledge (Anttila et al., 2007). Explicit information, e.g. process documentation, is only a very minor part because most of the knowledge is implicit (or tacit) in this context. Formalized process diagrams may even be harmful to motivate people to commit activities of a business process.

There always are also complex connections between consciousness and unconsciousness (subconsciousness) (figure 7) (Block, 1995). Operational processes and mental processes of the process people always interact with each other. Situation is more complicated when one tries to consider collective consciousness and collective unconsciousness, and it is still more challenging and costly when globalization and outsourcing make different cultures meet in business processes.

An immense haste is one of the obvious characteristics of our modern society and business processes (Anttila&Kajava, 2009). This is a major threat to the performance of organizations and processes. Time pressures cause dangers and problems in the work of business leaders and employees. Obviously haste is also a major cause for business crises and conflicts. Therefore haste should be taken explicitly into account in the context of

business process management. We can only win the race against the clock through an entirely different behavioral model; under time pressure one must paradoxically stop. This idea is not new one but it already was included in the old Eastern wisdom, as e.g. in LaoTsu's well-known poem number 26 (LaoTsu, c. 500 BC). By stopping a person gets time to think and understand the situation as a whole. This gives possibilities for fact-based and rational problem elimination and proactive breakthrough improvements. This is also essential for developing a business-integrated quality culture, and organizational and individual quality awareness (Anttila&Kajava, 2009).

### *Process variety*

Process variety is closely related to human work in business processes. We consider the process activities for the practical process management purposes according to three main variety modes (figure 8) that we developed from an approach used e.g. in some studies at the Harvard Business School (Sunnykwantlen, 2011):

- Mechanistic
- Organic
- Dynamic

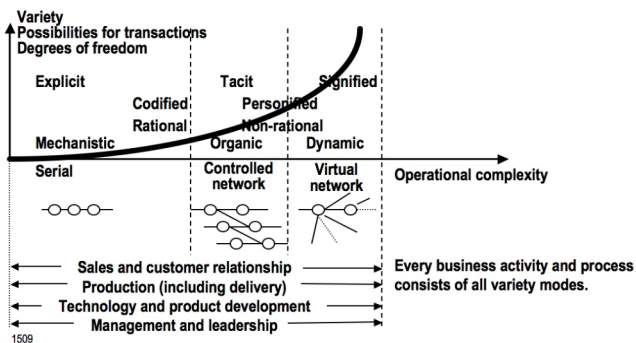


Figure 8. Three main modes of variety in business processes: All practical business processes have activities with all these modes.

All of these variety modes are inherent in all business processes and their activities. These modes differ from each other in the degree of freedom that characterizes the activity. Mechanistic aspects are highly disciplined tasks, e.g. keeping delivery deadlines in the from-order-to-delivery process. Organic aspects relate e.g. to interactions and collaboration with the work or business partners. Dynamic aspects typically reflect spontaneous human activities in the real time situations. Process management should take into account all these modes of variety.

### **Products as output of processes**

Products (goods and services) are defined in the ISO 9000 standard as a result of processes (ISO, 2005/8/9). The role of services is emphasized in all products

(Anttila&Jussila, 2013a). Service is a product generated by activities at the interface between the supplier and the customer, and by supplier's internal activities (ISO, 2005/8/9). Thus, services are always produced by both supplier's and customer's processes. All products include services. In fact, products do not exist without service elements. Although many suppliers' service providing processes and in some cases even customers' processes have been automatized with technical solutions, still traditional human-to-human services have an important position in practice. The key issues in these cases are is the rational, non-rational (emotional), and irrational interactions between supplier's customer service person and the customer, and the mutual value creation (figure 9).

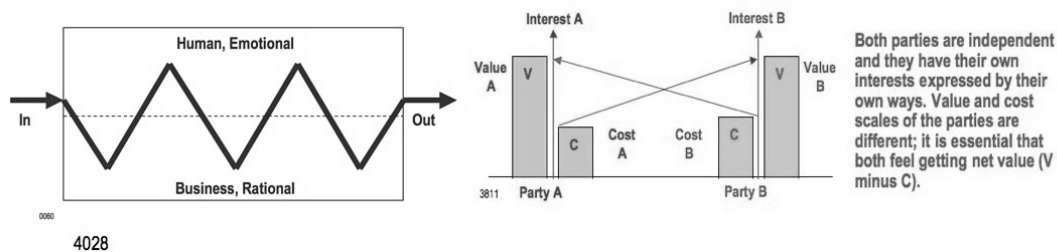


Figure 9. Supplier/customer interaction in a service provision and perception. A beneficial interaction between a product supplier (Party A) and a product user (Party B). Both parties use their own resources, but in order to be beneficial, net values must be positive on the both sides. This is a Win / Win interaction.

### Implementing quality management processes

Quality management (QM) is to ensure that organizations' products (goods and services) will fulfill relevant needs and expectations in an effective and efficient way, and to assure confidence among organizations' interested parties. QM should be realized in a business-integrated way. That means that QM processes should be embedded within organizations' normal business processes and not separated from them. Hence, also process workers have a significant role in quality management implementation.

ISO 9000 standardization (ISO, 2005/8/9) is the most important general reference for implementing QM in any organization. Seven QM principles define the conceptual basis of the ISO 9000 standards. One of those principles is "Engagement of people", and it emphasizes that it is the essence of the organization to empower competent and engaged people at all levels to take initiatives to deliver value to an organization and its customers. Hence, in order to manage an organization effectively and efficiently, it is important to involve all people in the organization, to strive to enhance their knowledge, skills and engagement, and to respect them as individuals.

The standard ISO 9004 goes to the details. It gives guidance for selecting and developing business leaders and employees. In order to fulfill needs and expectations of people, the organization's management should take care of and appreciate the quality of work environment and people recognition. Practical measures include:

- Competence of people and training (ISO, 1999)
- Involvement and motivation of people (ISO, 2012)
- Work environment, as a combination of human and physical factors
- Knowledge and information

- Awareness and communication

QM is analogous to many other specialized managerial disciplines including asset management, environmental protection, information security management, occupational health and safety (OHSAS) management, social responsibility, etc. (Anttila et al. 2012). General management system standardization presents that all these disciplines should be integrated with the organization's business management and be handled in a similar way (ISO/IEC, 2012b). Factually this also means multidisciplinary awareness and skills of the people in organizations.

OHSAS aspects directly relate to people in organizations and phenomena in all business processes. Normally organizations' HRM function or department has responsibility to deal with OHSAS questions organization-wide. We prefer a "HR integration" approach, analogously with "quality integration, QI" (Anttila, 2013), in order to get OHSAS and other HR practices happen in all business processes in a professional way according to the organization's business and HR policies. HR integration process is one of organization's support processes (figure 10). Its owner is in the HRM department and it provides services to organization's all business units and processes.

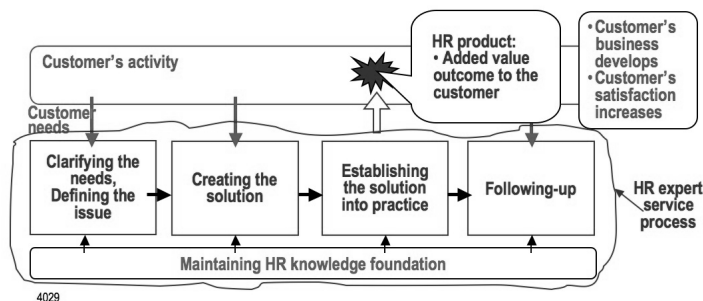


Figure 10. HR integration process provides professional HR solutions to organization's all business processes. HR experts of the HRM department are the key persons in the HR integration process and customers in organization's all other business processes.

## Information and knowledge in business processes

### *Business information and knowledge*

The organization needs to share information and knowledge between employees and people of the interested parties, locate information and knowledge sources, push information to users, or create a central location to navigate through data that one can benefit from (Anttila&Jussila, 2011b). All this takes place in business processes. Information content and information dependence are high in all business processes. All process workers and business leaders are factually knowledge workers. Their work is to create value to the work or business partners through making interpretations, judgments, and decisions based on various data and information.

Only minor part of business information is explicit information, like procedure documents, standards, described operational models, operational records, factual knowledge, etc. Major part is implicit or tacit representing reality in the minds of the

individuals and their skills, knowing, and practical operations (Anttila, 2006). The latter part is the most significant regarding to people's actions and behavior in processes. This knowledge contents may change due to time and situation, and depend on influences and learning. Knowledge conversion from tacit to explicit and vice versa takes place through collaboration and discussion of people.

### *Documented and communicated information*

Business documentation is the traditional way of managing information and knowledge in business systems as a whole and in business processes. Especially management system standardization (ISO/IEC, 2012b), e.g. for quality management (ISO, 2005/8/9), emphasizes documented information.

Process documentation is an essential part of the whole business management documentation. Detailed process documents include process plans, procedure and method documents, operational records, and training documents. Process management procedure document is the core document for a business integrated process management approach. It assembles all essential information on the organization's process management model as a whole. Principles, tasks, and responsibilities for process management are described according to the corporate-wide business and process framework. Process plan and process environment description, which describes linkages of the process to other processes or actors, are the most important documents for a particular process.

Process flow diagrams are needed for particular purposes, e.g. for performing process analyses, and for developing IT solutions for business processes. For human operated processes or process activities, formal flow diagrams can be frustrating because people do not operate according to that kind of diagrams. The process plans are the important documents for the purposes of a process management.

In today's dynamic process environments stable and stiff documentation structures are no more adequate but instead flexible and collaborative information and communication arrangements are required. Mobility is a crucial requirement for business process people and activities today; global networking further reinforces its importance. Also business and process information should be possible to create and use accordingly.

Effective use of advanced information and communication technology gives new possibilities by especially strengthening applications in the area of tacit knowledge. These new solutions include collaborative work and social networking infrastructures based on Web 2.0 technology (O'Reilly, 2005). In our recent applications we have used these social networking applications (Web 2.0) that have proved simple and inexpensive solutions (Anttila, 2008). Their particular strengths come from easily customizable applications that allow process groups to work simultaneously on sharing individual knowledge and creating new mutual knowledge inside and globally outside the organization.

It is essential from the business process management's point of view that the business leaders should facilitate the combining of explicit performance information measured/monitored from the processes with the tacit understanding of the business situation as a whole. People need to act and make decisions in situations where causality is poorly understood, where there is considerable uncertainty and people hold different beliefs and have personal biases. Workers and business leaders have to negotiate in order

to understand what they face. A mix of stimuli always surrounds people. The stimuli have no meaning apart from what the individuals make of it. In other words, the organizational environment is the outcome of the persons, not something outside of the persons. The reality is not an objective set of arrangements outside us, but is continually constructed in daily interaction. (Anttila&Jussila, 2011b)

People need to create shared meanings in various process contexts; they need to talk about their experience in close proximity to its occurrence and have common platforms for conversation. Many meetings that are directed to the problems of ambiguity fail to handle the situation because autocratic leadership silences potentially rich views and norms that encourage harmony, or there is reluctance to admit that no one has any idea what is going on. Business dedicated solutions of social media technology are new possibilities for improving the situation.

### *Information security and privacy*

A lot of sensitive information is dealt with in many processes. This includes confident business information, customer and partner information, or employee related information. Information security management is a specialized managerial discipline that considers information confidentiality, integrity, and availability (Anttila et al., 2008). Information security is closely related with the privacy questions (ISO/IEC, 2012a), e.g. of the personally identifiable information (PII) of an employee that includes any information that can be used to identify the person, or is or might be directly or indirectly linked to person. The standard ISO/IEC 29100 (ISO/IEC, 2012a) mentions a large number of attributes that can be used to identify natural persons.

### *Challenges for the leadership language*

Leadership language has an important role in organizations (Sun Microsystems, 2002). Common mutual understanding is an essential issue in both strategic and operational processes. An organization is a living organism. It is a set of conversations among people. Language is a medium for organizational growth and change. Narrowing language increases efficiency. A common shared language helps the organization arrive at decisions more efficiently. However, narrowing language increases ignorance. Constrained by a limited vocabulary, the organization becomes unable to adapt to fundamental changes in its environment. It is possible for an organization to learn and grow only if it creates conditions that help generate new language. Taking this into account in managing business processes is technically and intellectually demanding and, consequently, often dismissed in organizations and guidance reference for process management.

## **People aspects in measuring and improving performance of the business processes**

### *Measuring performance of people in processes*

Organizations' business performance arises from the operation and management of business processes. Organizations are interested in their overall business performance as



a broad concept that, in addition to customer focused performance, product performance, and financial and market performance, includes operational performance consisting of hard business process performance (e.g. cost efficiency, throughput or lead time) and soft performance (e.g. process operators' performance) (Anttila&Jussila, 2011a; and NIST, 2010).

Workforce related measurements normally focus on workforce environment and for workforce engagement, and are segmented according to the diversity of the workforce addressing workforce groups, segments, and processes. Organizations are interested in current levels and trends in key measures or indicators of workforce capability and capacity, workforce climate, including workforce health, safety, security and workforce services and benefits, workforce engagement and workforce satisfaction, and workforce and leader development (NIST, 2010). Human activities related measurements are always difficult and sensitive. The actual performance is often hidden. and it is perhaps not at all possible to reach with direct and superficial measurements.

Business performance measurements, their results, their interpretations and usefulness always depend on people, on those who plan measurements, who perform measurements and who interpret and use the results. Phraseology "You get what you measure" is not necessarily true (Anttila&Jussila, 2011a). Measurements in all kinds of business activities are important for management but in practice:

- Measurements are often excessive, unfocused or wrong
- Business results you get don't necessarily relate to what you measure
- What you get through measurements is not necessarily meaningful or good for organization or people being managed
- Business leaders may not know what they don't know ("Tacit ignorance")

Results of measurements represent explicit knowledge of the business performance but business intentions and real business results principally represent tacit knowledge of business leaders and workers. No measurements can be objective but they are always affected by the intension and awareness of somebody. What is being measured, by what kinds of means or methodology, what is obtained through measurements, and how the measurements results are understood – they all depend on somebody's intention and awareness.

### *Process evaluations*

Two different methodologies are in general available for overall considering and evaluating the performance of the individual business processes or process systems as a whole: (a) Evaluations based on maturity models (e.g. SEI, 2012), and (b) evaluations based on performance excellence models, e.g. the Malcolm Baldrige model (NIST, 2010), of which the latter is our preferred model. The first one is to assess performance against certain specified maturity levels, and the latter is emphasizing continual performance growth based on learning, refining, and integrating. Our strategic "3in1" organization-wide performance self-assessment methodology (Anttila&Jussila, 2011a), which has been developed from the Malcolm Baldrige model, evaluate both organization's business leaders' personal activity and workforce management, and achieved outcomes of leadership and workforce performance with the following questions:

- How do leaders and managers lead the organization fulfilling its basic purpose and objectives as well as the legal, ethical and social responsibilities and support to the organization important communities?
- What are your organization's governance and senior leadership results, including evidence of strategic plan accomplishments, fiscal accountability, legal compliance, ethical behavior, societal responsibility, and support of communities segmented by organizational units?
- How does the organization manage its workforce to utilize its full potential in alignment with organization's operations and objectives, and create a workforce environment conducive to high performance?
- What are the organization's workforce-focused results for workforce engagement and for workforce environment segmented by the diversity of the workforce and workforce groups?

Assessment results include both textual descriptions of existing strengths and weaknesses and also the scoring of the situation according to defined criteria.

The operational assessments of individual processes are carried out through monitoring the process measures and indicators or through organization-internal process audits according to the general ISO 19011 auditing standard (ISO, 2011; Anttila, 1997). Our auditing questions related to people consist of:

- Responsibilities and obligations
- Knowledge and training
- Motivation
- Commitment
- Communication
- Satisfaction

Assessment results include both textual descriptions of existing strengths and weaknesses and also the scoring of the applied practices and the evidenced results according to defined criteria.

#### *Use of the results of the measurements and assessments*

Assessment results are useful for the process studies, planning, control and improvement, and for quality assurance for customers' confidence. For these activities we have a lot of proved methods and practices available (Anttila&Jussila, 2011a).

Especially if the management would like use quantitative performance measurements results for people rewarding, Deming's warning of his deadly disease #3 of leadership, should be taken into account:

“Evaluation of performance, merit rating, or annual review nourish short-term performance, annihilates long-term planning, builds fear, demolishes teamwork, nourishes rivalry and politics. It leaves people bitter, crushed, bruised, battered, desolate, despondent, dejected, feeling inferior, some even depressed, unfit for work for weeks after receipt of rating, unable to comprehend why they are inferior. It is unfair, as it ascribes to the people in a group differences that may be caused totally by the system that they work in.” (Walton, 1990)

### **Comprehensive refinement of a business process approach**

Business processes in a real organization are never completely non-existent, but all organizations have always a certain performance of their operating business processes and an existing organizational structure. Also all organizations have always some possibilities to improve their business process performance. From this starting point, implementation of a refined process approach consists of strategic development projects that incorporate research, development, and learning elements. In the organization-wide development an organization should focus on the most important strategic challenges towards desired vision. People aspects in process management may be a focus area when developing an organization's quality outcome.

We have analyzed and synthesized the realization of a process approach in a systematic and comprehensive way by using a heuristic "Vee" methodology (figure 11) (Wheeldon, 2012). This methodology assists one to plan, implement, and evaluate the development activities through directing to understand how events, processes, and objects are meaningfully related. Hence, thinking, doing, and evaluating can be consistently and effectively interrelated throughout the entire project.

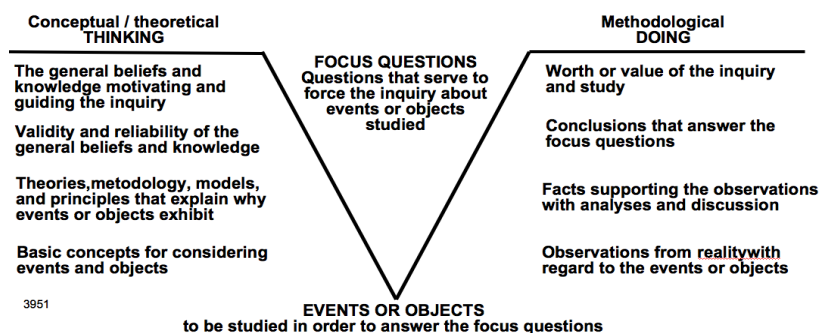


Figure 11. Analyzing and synthesizing a process development initiative and establishment by using heuristic Vee methodology (Wheeldon, 2012)

In this paper we have broadly considered the people aspects in business processes from many different viewpoints that are relevant for the Vee methodology. The focus question in this context for an organization's specific business process development initiative could be: How could we enhance the performance of people in our business processes in order to improve the degree of fulfilling the needs and expectations from our stakeholders? Interested events or objects in this case could deal with the operation and behavior of the business leaders and employees in the business processes. Findings from our studies and practical experiences can act as a profound basis for conceptual/theoretical thinking that is a necessity for a consistent and effective development and investment in awareness and sensibility for new challenges, attitudes, interests and beliefs, and skills and capabilities of leading and operating members of our organization (Senge et al. 1995). Ontological and epistemological foundations for our thinking can be applied from the multidisciplinary basis of concepts and principles of process management and quality management theories and human sciences.

Methodology to be applied depends a lot on the organization's business situation and development targets. Worth and value that may be expected from the contributions can be analyzed e.g. according the EEM (Enabler-Effect Map) methodology (Holopainen et al., 2001) from the following viewpoints:

- Improved fulfilling of the customers' needs and expectations and increased satisfaction
- Solved problems in the internal organizational interfaces and responsibilities
- Reinforced awareness of the business integrated quality among the leaders and employees
- "Real option" benefits by building new business opportunities on existing process innovations, operations and results

## Conclusions

People's aspects should be seen in organizations particularly from the viewpoint of business processes. Performance of people squarely becomes actualized only in the operational business processes, and through this also the quality to the stakeholders and the business results. It is necessary that both people's aspects and business processes are consistently considered within the corporate-wide normative scope, strategic business focus, operational process activities, and individual human recognition. All this requires profound knowledge and the sound theoretical and conceptual basis, and an integrated multidisciplinary managerial approach.

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