Typology of Organization’s Processes

Mantas Vilkas, Edmundas Regimundas Stancikas

Kauno technologijos universitetas
K. Donelaičio g. 73, LT-44309, Kaunas

Conducted literature review revealed the prevalent typology of organizational processes. The typology of organizational processes suggested by Garvin (1998) with the main types of work, behavioural, management and change processes, usefully integrates process models of different management schools and so far provides best conceptualization of prevalent understanding of organizational process’ types although it must be the subject to further refinements. The authors suggest which categories of this typology do not pass critical evaluation against procedure of typologies’ creation.

Later this typology was contrasted with ISO 9000 series of standards process based model, which suggests typology of organizational processes. It was concluded that ISO 9000 series of standards’ typology of organizational processes is not adequate to prevalent understanding of typology of organization’s processes. ISO 9000 series of standards’ typology of organizational processes includes only work process type and ignores management and behavioural process types. The result is overemphasis on technical aspect and disregard of behavioural and managerial factors of organization. Disregard of behavioural and managerial processes of organization may obstruct organizations to express and improve their underlying behavioural patterns and existing managerial skills while shifting attention to work processes. Also it may create a paradoxical situation when endeavour to make bigger scale improvements of work processes end in failure because of ignored interaction of work processes with behavioural and managerial ones.

Keywords: process, process management, typology of processes.

Introduction

Among the main recent trends in management we think is the beginning of a shift from an entity-based to a process-based view of organization. Scott (2004) states that, this is happening, because of the changes in our conceptions of organization’ boundaries, strategies, and controls. The boundaries become more open and more flexible. Organizations now pursue strategy of externalization, they dispose of internal units and contract out functions formerly performed in-house while earlier when confronted key challenges to their functioning, their likely responses were to absorb or to map them into their structure. The unitary hierarchies are replaced with more horizontal and decentralized systems because most of the important information needed to compete effectively is found at the boundaries of organizations rather than at the core. As the operational boundaries of firms and agencies extend outward to include temporary workers and contractors, managers are obliged to learn to manage horizontally (without authority) as well as vertically.

These developments result in change of the thinking in different areas of scientific thought. In organizational sociology scholars have begun to embrace a relational or process conception of organizations. Emirbayer (1997) laid the foundation of the relational sociology and concluded that organizations are inseparable from the transactional contexts in which they are embedded. Mohr (1982) followed by Langley (1999), Pentland (1999) and Mackenzie (2000) developed the process theory concept and contrasted it with traditional variation theory, so introducing new methodological ways of capturing dynamic phenomenon.

In management the idea of process-based organization means accepting the assumption that organization consists of interrelated and interacting processes. There have been a number of process theories in the scientific literature, but they have been seldom reviewed systematically or in an integrated way. Process theories have appeared in organization theory, strategic management, group dynamics, and studies of managerial behaviour but all of them were devoted to explain some organizational phenomena in process theory way. So many efforts to tackle processes either have been tightly focused on theoretical or methodological statements or have focused primarily on a single type of process theory.

Total quality management and operations management go further and not only accept that organization consists of processes but promotes process management: the body of knowledge how to identify, improve and manage organizational processes. Process management spread as a core element of quality related initiatives, including excellence models (Malcolm Baldrige National Quality Award, European Quality Award), International Organization’s for Standardization’s Series 9000 standards (ISO 9000) and more recently, Six Sigma programs.

Most of the literature on process management is oriented to teach managers how to implement process management conception or focused on specific process improvement methods. Therefore the literature on process management is abundant, but very little of it is devoted to explain and understand process management conception.

The main process management premise that organizations are systems of interrelated and interacting processes suggest the first research question: which processes constitute organization? ISO 9000 series standards include process management model in which organizational processes are categorized into management responsibility, product realization, resource management and measurement, analysis and improvement types of processes and most of implemented qual-
ity management systems are grounded on this typology of organizational processes. Does this typology reflect the main types of processes which constitute the organization?

This situation determines the research problem: what are the main types of processes which constitute the organization and are these types adequate with the types promoted by ISO 9000 series standards process management model?

The paper is aimed at suggesting the typology of organizational processes and comparing it with ISO 9000 organizational processes typology.

The object of the paper is the classification systems of organizational processes. Used research method is literature review.

The need of organizational process typology is apparent. The typology is a shorthand device by which organizational processes may be compared and it provides a means for ordering and comparing organizational processes and clustering them into categorical types without losing sight of the underlying richness and diversity that exist within the type. By comparing the organizational typology with ISO 9000 promoted one helps to understand whether quality management systems created according to the requirements of ISO 9001 are built on prevalent understanding of management of organizations.

The nature of typology

There is an active discussion in academic society what is classification scheme, taxonomy and typology. It seems that the discussion is still open and scholars do not come to the conclusion which satisfies most of scholars and researchers.

There exist three different opinions related with the difference between these concepts.

Burns (cited by Rich, 1992) asserts that there is no substantial difference between these concepts.

On the other hand Kelvey and Miller (cited by Rich, 1992) claim that typology is an invention of individual creativity, the taxonomy is an empirical tool for building complex filing systems that allow both the ordering and the retrieval of large amounts of data. So taxonomy refers only to numerically defined, hierarchical organizational classification schemes that are empirical in nature and typology is used to describe classification of data into types based on theoretically derived, and more or less intuitively categorized, qualities of observed phenomena (see table 1).

Doty and Glick (1994) present the third attitude toward this discussion. According to them, classification scheme and taxonomy refer to classification systems that categorize phenomena into mutually exclusive and exhaustive sets with a series of discrete decision rules and typology identifies multiple ideal types, each of which represents unique combinational of organizational attributes that are believed to determine relevant outcome.

Within this article we adopt the attitude, expressed by Kelvey and Miller (cited by Rich, 1992), which is routine in social and natural sciences. We use classification system as general term to name classification scheme, taxonomy or typology.

ISO 9000 typology of organizational processes

International Organization of Standardization’s 9000 series of standards state requirements on creation, implementation and improvement of quality management systems. Although scholars do not show much interest in this phenomenon, this practice expands very fast and so far they count over of 561747 organizations by the end of 2002 in the world (ISO, 2004) from which 438 in Lithuania (LSD, 2004) which are using the ISO 9000 suggested way of running business – (quality) management system. Yet it lacks research on the basics of this pervasive practice, especially on process management conception as its core (Benner and Tushman, 2003).

ISO 9000 series standards are building on the basis of “process-based model of quality management system” (LST EN ISO, 2001, p.10). It presents the typology of the organizational processes for which the requirements are stated. The model of process-based quality management system classifies organizational processes into management responsibility processes, product realization processes, resource management processes and measurement, analysis and improvement processes (ISO, 2003).

Overview of classification’s of organizational processes

Organizational processes classification provides the basis for strong research by breaking the continuous world of organizational processes into discrete and collective categories well suited for detailed analysis. Classification permits parsimony without simplicity, the ability to recognize fundamental structure and relationship. Although in organizational study “macro-organizational research” was very scant comparing with other forms of organizational study and “over the past 20 years has been dominated by focus on structure and function” claims Sutcliffe, Sitkin and Browning (2000, p. 317).

That happened because processes are harder to perceive than structures such as departments, functions and tasks. Specifically, organizational processes have tended to be unnoticed and unnamed because attention has been focused on individual departments and their goals rather than on sets of interrelated activities, that cross formal boundaries and invoke a variety of organizational members. As we noted in every management school there were process theories, but most of them were concerned about single type of process theory and did not represent the classifica-

### Table 1

**Procedures of Organizational Processes Classification**

<table>
<thead>
<tr>
<th>Type of Procedure</th>
<th>Basis of procedure</th>
<th>Results of Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theoretical</td>
<td>A priori/ heuristic</td>
<td>Organizational processes classes are formed prior to the placement of organizational processes into these classes.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Organizational processes are sorted into classes based on prior theory rather than empirical methods.</td>
</tr>
<tr>
<td>Empirical</td>
<td>A posteriori/ arithmetrical</td>
<td>Organizational processes classes emerge from the empirical procedures used to sort organizational processes features on the basis of similarity or contrast.</td>
</tr>
</tbody>
</table>

The known processes in different schools of management are: garbage can model of decision making (Cohen, March and Olsen, 1972), explained development process (Van de Ven and Poole, 1995), study of organizational learning process (Levitt and March, 1988), work about decision making process (Mintzberg, Raisinghani and Theoret, 1976) and analysis of strategy process (Van de Ven, 1992). The rare examples of single type process models presented by Lithuanian scholars include Auruškevičienė (2000) study of strategic planning process and Stankevičius and Jučevičius (2001) study of knowledge management process.

Anyway in 50 years of scholarship there were presented some classification systems of organizational processes which we briefly present (see table 2). We do not present classification systems which underlie the same logic. For example there are many typologies in quality management and operational research literature similar to Harrington Esseling, and van Nimwegen (1997) and Porter (1985) typologies: processes used in production of products and other support processes. American Productivity and Quality Center (1991) prepared APQC’s Process Classification Framework, which was originally developed as a collaborative effort across 80 organizations and envisioned as a taxonomy of business processes during the 1991 design of the American Productivity & Quality Center’s International Benchmarking Clearinghouse.

Lilrank (2003) distinguishes standard, routine and non-routine organizational processes on the criteria of routine. Standard processes are set up to deal with a single variety using binary logic. Routine processes can distinguish a limited amount of variety using fuzzy logic. Non-routine processes are open systems in which unrestricted variety is interpreted and as signed meaning.

Table 2

<table>
<thead>
<tr>
<th>Source</th>
<th>Type of Procedure</th>
<th>Basis of Procedure</th>
<th>Main categories of processes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harrington, Esseling, and van Nimwegen, 1997</td>
<td>Theoretical</td>
<td>A priori/heuristic</td>
<td>Administrative business; product business</td>
</tr>
<tr>
<td>American Productivity and Quality Center, 2000</td>
<td>Empirical</td>
<td>A posteriori/arithmetic</td>
<td>Understand markets and customers; develop vision and strategy; design products and services; market and sell; produce and deliver for manufacturing; produce and deliver for service oriented organization, invoice and service customers; develop and manage human resources; manage information resources; manage financial and physical resources; execute environmental management program; manage external relationships manage improvement and change.</td>
</tr>
<tr>
<td>Garvin, 1998</td>
<td>Theoretical</td>
<td>A priori/heuristic</td>
<td>Work processes: Operational; Administrative.</td>
</tr>
<tr>
<td>Lilrank, 2003</td>
<td>Theoretical</td>
<td>A priori/heuristic</td>
<td>Management processes: Direction setting; Negotiation and selling; Monitoring and control.</td>
</tr>
<tr>
<td>Burns and Stalker, 1961</td>
<td>Theoretical</td>
<td>A priori/heuristic</td>
<td>Change processes: Autonomous; Induced; and Incremental; Revolutionary.</td>
</tr>
<tr>
<td>Ouchi, 1979</td>
<td>Theoretical</td>
<td>A priori/heuristic</td>
<td>Primary activities: Inbound Logistics; Operations; Outbound Logistics Marketing and Sales; Service.</td>
</tr>
<tr>
<td></td>
<td>Standard; routine; non-routine</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Input; behavioural; output control</td>
<td></td>
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</tr>
</tbody>
</table>

Porter (1985) in his value chain model identifies primary and secondary organizational processes, suggesting that particular processes might be the source of competitive advantage for organizations. Garvin (1998) integrates many different process models and categorizes organizational processes into work, behavioural, change and management processes with their major categories. Burns et. al. (1961) contrast mechanistic and organic organizational processes, depending on the nature of environment in which organization operates, Ouchi (1979) describes input behavioural and output control processes.

All presented classification systems are typologies, except the taxonomy presented by American Productivity and Quality Center (1991). It is ambiguous attempt to categorize organizational processes using empirical approach and a posteriori basis of classification, “because the available database is inadequate” (Sutcliffe et al. p. 317). Lilrank (2003), Burns et al. (1961) and Ouchi (1979) presented the typologies of organizational processes which were used for some specific purposes. Lilrank (2003) analyzes the levels of routines which organizational processes express, Ouchi (1979) studies organizational control mechanisms, Burns et. al. (1961) identifies the contingency of organizations to environmental characteristics.

Harrington et.al. (1997) and Porter (1985) presented typologies of organizational processes, which are quite similar to one presented by ISO 9000 series of standards.

From this point only Garvin presented the typology which encompasses different aspects of organizations and includes process models conceptualized in different...
schools organizational research. Pettigrew, Woodman and Cameron (2001, p. 700) reviewed the studies of organizational change and development and noted “Garvin offered an integrating review of the literature that usefully drew together writing on work processes, behavioural processes and change processes”. The typology presented by Garvin became recognized by scholars and reflects the prevalent understanding of organization from process viewpoint.

Garvin’s typology of organizational processes

Garvin’s (1998) typology consists of processes which are analyzed by different management schools and he only integrates research of many scholars into typology. Here we briefly present the description of major types of the processes of the typology with the view to reveal the underlying logic of the identified types of organizational processes.

The work process approach, which has roots in industrial engineering and work measurement, and continues through quality management and operation management focuses on accomplishing tasks. Davenport (1993, p. 5) states “a process is thus a specific ordering of work activities across time and place, with a beginning, an end, and clearly defined inputs and outputs: a structure for action”. Garvin categorizes work processes into two major categories: operational (processes that create, produce and deliver products and services that customers want) and administrative (processes that do not produce outputs that customers want, but still necessary for running the business). These processes are sequences of activities, which are designed to accomplish specific task by transforming inputs into outputs and deliver them to customers, internal (next process) or external (customer external to organization).

The behavioural process approach has its roots in organization theory and group dynamics. Garvin (p. 37) defines behavioural processes as “sequences of steps used for accomplishing the cognitive and interpersonal aspects of work.” So the main unit of the analysis is ingrained behavioural patterns. These patterns reflect an organization’s characteristic ways of acting and interacting. They are generalizations, distilled from observations of everyday work and have no independent existence from work processes in which they appear. Garvin notes that these patterns are very deeply embedded and recurrent that they are displayed by most organizational members. Weick (1972) observes that behavioural processes are able to withstand the turnover of the personnel as well as some variation in the actual behaviours of people contribution. Garvin identifies individual and interpersonal processes as the main categories of behavioural processes. The examples of behavioural processes may include decision making, organizational learning and communication.

The change of process approach having roots in strategic management, organization theory, social psychology, and business history focuses on sequences of events over time. These sequences called processes, describe how individuals, groups and organizations adapt, develop and grow. If work and behavioural processes are static, change processes are explicitly dynamic, longitudinal and intertemporal. Van de Ven (1992) suggest that with change processes always present a set of starting conditions, a functional end point, and emergent process of change. Garvin identifies autonomous against induced and radical against incremental processes as major categories of change processes. The examples of these processes may be organizational life cycle, creation, growth transformation, decline.

Newman, Summer, and Warren (1972) describe the process of management in such way: “managing is a social process. It is a process because it comprises a series of actions that lead to the accomplishment of objectives. It is a social process because these actions are principally concerned with relations between people.” Garvin categorized management processes into three categories: direction setting, negotiation and selling, monitoring and control. He was relying on ongoing research of scholars who had reviewed the time commitments and activities of few managers, grouped them into categories according to the purposes and goals and then applied process perspective (Mintzberg, 1973; Sayles, 1964, Hayles, 1986 cited by Garvin, 1998; Isenberg, 1984).

Despite it is the best conceptualized typology of organizational processes it needs further refinements. Overall the identified categories in management processes’ types are actually not categories, but sequential stages or activities of the management processes type. The procedure of creating typology insists on theoretically derived, and more or less intuitively categorization. Over all, the administrative processes category of work processes type overlaps with management processes type. It is difficult to decide where to class strategic planning and development or work monitoring processes. The change process type categories incremental and induced are the pace of change processes therefore these categories hardly fit the typology.

Comparison of Garvin’s and ISO 9000 series standards typologies of organizational processes and implications from the differences

We propose that the ISO 9000 process typology is adequate to work processes’ type of Garvin’s typology, although Garvin classifies work processes in two major categories, while ISO 9000 in four. By the underlying logic of Garvin’s typology management responsibility processes, resource management processes and measurement, analysis and improvement processes from ISO 9000 model Garvin calls administrative processes ant product realization from ISO 9000 model – operational processes. This statement can be supported by the definition of process in ISO 9000 standard: “set of interrelated or interacting activities which transforms inputs into outputs” (ISO, 2003). Hence, ISO 9000 emphasizes the transformational aspect of the processes which is inherent characteristic of work processes. It would be confusing to claim that the ISO 9000 model does not include the change processes’ type, because all ISO 9000 series standards underline the notion of continuous improvement – incremental pacing induced change process. What it is really missing, these are the behavioural and management processes types, as they were conceptualized in Garvin’s typology.

The ISO 9000 suggested typology limits understanding of organizational processes only to work processes and the management system created according the of ISO 9000 process typology therefore incorporates only work processes.
So what we claim is that ISO 9000 process typology is not adequate to prevalent understanding of organizational processes and their types.

It is possible to object to this conclusion and claim, that behavioural processes are organizational culture and management processes equal to management responsibility type of processes from ISO 9000 series standards. However, management processes form Garvin’s (1998) typology are supposed to be processes which managers exhibit using the existing formal system of work processes. Management responsibility (one should hardly call them processes but only management commitment to quality management system) processes are just administrative processes category form Garvin (1998) typology. The comparison of organizational culture and behavioural process type is very ambiguous task, at first because, “there is as yet no single widely agreed upon conception of organizational culture” (Detert, Schroeder and Mauriel, 2000, p. 851). Garvin (1998, p. 37) claims, that “they are different from organizational culture because they reflect more than values and beliefs”. But we agree that if one looks at organizational culture in the widest sense, these concepts will partly overlap. Or maybe organizational culture is a force which is behind behavioural process and has the main influence on their characteristics.

In this article we only state that ISO 9000 series standards’ typology of processes there is no such a type of processes nor there are some requirements “or recommendations, that organization must implement some kind of planned organizational culture change, before implementing ISO 9000 series standards or during the process of implementation” (Abramavičius, 2002, p.66).

Now we will discuss some missed opportunities by organizations implementing quality management systems according to the requirements of ISO 9000 series of standards and consequences to which this may lead.

- Because ISO 9000 typology is limited only to work processes, technical aspect of organization, consequences the management system can be dramatic. The significance of the behavioural processes may be demonstrated by the example, that work processes may have exactly the same steps in different organizations but because of different behaviour patterns used to accomplish work, they may be performed in very different way. And often these underlying patterns determine the success or failure of work processes.

- In order to improve processes, one should understand them, but you can not understand work processes unless you understand the inherent behavioural patterns not only the structure of them.

- As administrative and operational processes must be supportive, they must be supported by behavioural and management processes in order to create maximum added value.

- If organization holds on idea that organization management system is limited to work processes it misses the opportunity to gain benefits from the improvement of behavioural and management processes types.

- The biggest problem is about the improvement of work processes. All the types of organizational processes are interrelated and interacting. In case of bigger scale improvement of work processes behavioural and management processes should be informed, although the model implies that they must change automatically. This can explain why most of reengineering projects fail.

Conclusions

- The suggested by Garvin typology of organizational processes, with the main types of work, behavioural, management and change processes, usefully integrates process models of different management schools and so far provides best conceptualization of prevalent understanding of organizational process types although it must be the subject to further refinements. It was suggested to modify Garvins’ (1998) typology by eliminating management process’ type categories, because they are not theoretically derived. Also suggested to eliminate one category (radical and incremental) because these categories are the pace of induced change process.

- ISO 9000 series of standards’ model of process-based quality management system with typology of organizational processes is not adequate to prevalent understanding of organizational process typology presented by Garvin (1998) and includes only work process type but ignores management and behavioural process types. The result – overemphasis on technical aspect and disregard of behavioural and managerial factors of organization.

- Disregard of behavioural and managerial processes of organization may obstruct organizations to express and improve their underlying behavioural patterns and existing managerial skills while shifting attention to work processes. Also it may create a paradoxical situation when endeavour to make bigger scale improvements of work processes end in failure because of ignored interaction of work processes with behavioural and managerial ones.

- As for implications for managers, they must be careful implementing quality management system according requirements of ISO 9000 series of standards and do not restrict their understanding within requirements and guidelines stated there. In this article we didn’t want to say, that work processes’ type is not important, we have just proposed that all types of processes are important for organization.

References


Mantas Vilkas, Edmundas Regimundas Stancikas

Organizacijos procesų tipologijos

Santrauka


Remiantis pagrindine procesų valdymo prielaida, kad organizacijos yra tarpusavyje susijusių ir sąveikaujančių procesų sistema, kyla klausimas, kokiu procesu, jį tipai sudaro organizaciją? ISO 9000 šeimos standartai remiai procesų pagrįstų kokybės vadybos sistemos modelių. Šis modelis susikirsto organizacijos procesus į keturis tipus: vadovybės atsakomybė, produkto realizavimas, išteklių vadyba ir matavimas, analizė ir gerinimas. Diegiamos kokybės vadybos sistemos kaip tik ir yra pagrįstos šia organizacijos procesų tipologijos. Tačiau ar ši tipologija iš tiesų apsprend prigimus procesų sudarančių organizacijų, tipus?

Ši situacija lemia šio straipsnio mokslingą problemą: kokie yra organizacijų sudarantys procesų tipai ir ar šie tipai yra adekvatūs procesų tipams, kuriais pagrįsti ISO 9000 serijos standartai?

Straipsnio tikslas – pasiūlyti organizacijos procesų tipologiją bei palyginti ją su organizacijos procesų tipologiją, kuria remiasi ISO 9000 serijos standartai.


GANIZACIJAI KONKURENCIN
ISO 9000 ŠEIMOS STANDART
IUS IR PAGALBINUS, SIEKANT IDENTIFIKUoti ĖMUS IR SUTEIKANT
ORGANIZACIJOS PROCESŲ TIPOLOGIJAS, Pagal būdingą logiką adekvācios
ISO 9000 ŠEIMOS STANDARTŲ TIPOLOGIJAS.

Straipsnyje buvo padaryta išvada, kad Garvin (1998) pasiūlyta
organizacijos procesų tipologija, kurią sudaro darbo, elgsenos, vadybos
ir pokyčių procesai, yra geriausiai integruojanti įvairiose srityse sukurtus procesų modelius į vieną bendrą organizacijos procesų tipologiā.


Didžiausia problema yra darbo procesų tipologijų padidinimas, nes organizacijos procesų tipologija apimtų tik vieną procesų modelį. Remiantis galimais pasekėmis, remiantis organizacijos procesų tipologija apimtų tik vieną procesų modelį, organizacijos procesų tipologija bus klaidinantis, nes visiškai vienisku proceso tipu. Todėl reikėtų padidinti organizacijos procesų tipologiją, kuri transforminga gavinius į gaminius.”

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Taigi straipsnyje teigiamai, kad ISO 9000 sūlītoma tipologija apriboja organizacijų sudarantų procesų veikimo tvarką pagal ISO 9000 procesų tipologiją apimtų tik vieną procesų modelį. Remiantis organizacijos procesų tipologija, organizacijos procesų tipologija bus klaidinantis, nes visiškai vienisku proceso tipu. Todėl reikėtų padidinti organizacijos procesų tipologiją, kuri transforminga gavinius į gaminius.”

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