

The Diversity of Work Practices - Challenging the Existing Notion of Business Process Types

Mikael Lind

University College of Borås
School of Business and Informatics
S-501 90 Borås
Sweden
{Mikael.Lind@hb.se}

Abstract

Organisational action is performed by someone for someone. Thereby it has become popular to use different customer-oriented approaches focusing business processes for studying organisational action. In order to address the aspects framed by a certain business process, different prefixes have evolved for characterising a certain business process type. There is however a lack of criteria for distinguishing such business process types. In this paper the notion of work practices have been used for this task. By characterising actions performed to produce and deliver results of a work practice different business process types can be identified. These different business process types are *delivery processes*, *providing processes* and *condition-creating processes*. Criteria used for distinguishing these business process types, i.e. sub practices, are for whom the action is performed (potential or particular client) and the type of action (operative or development-oriented). A case study performed at a mail order company will be used to illustrate the different business process types.

Keywords: Work practice, Business process, Mail order, Business process type

1 Introduction

During the 90's a number of customer-oriented approaches for business development have gained much interest. Examples of such approaches are Business Process Reengineering, Total Quality Management, and Process Management. All these approaches emphasise a focus on business processes as holistic concept for addressing the actual work that is performed by organisations. By regarding the performance of work in business processes one put special emphasis on the customer, value-creating activities as well as on flow of material and information. By such focus the performance of work is put in the foreground and the way to organise is put in the background. Business processes are cross-functional spanning the white spaces in the organisation chart (Rummler & Brache, 1995). Criticism has however been put upon this notion of business processes as the only conception of organisational action (c.f. Goldkuhl et al, 2001; Lind, 2001).

Some researchers present different kinds of generic models for developing comprehensive knowledge about organisations. Examples of such models are CATWOE (Checkland, 1981), Activity theory (Engeström, 1991) and ToP (c.f. Goldkuhl et al, 2001; Goldkuhl & Röstlinger, 2002a). The work of one or several organisations can be regarded as a work practice (c.f. Goldkuhl et al, 2001; Goldkuhl & Röstlinger, 2002a). Work practices need to be co-ordinated based on different kinds of assignments. Organisations get their legitimacy from the products offered to, delivered to and utilised by its clients. Thereby a focus on inter-linked value-adding activities is highly relevant, but such a one-sided comprehension of organisational work is not enough during business development.

Business processes are often divided into different types in order to emphasise the different kinds of work performed in work practices. Example of such types are *core* processes, *support* processes, *primary* processes and *management* processes (c.f. Davenport, 1993; Harrington, 1991; Rummler & Brache, 1995). The prefix expressing the type of process is used for directing attendance to certain aspects of the work. One can however question whether such divisions of business processes are fruitful. Which activities should be placed in which process type? How can it be determined whether something is core or not?

The notion of business process types in existing literature relies on insufficient theoretical grounds. In order to distinguish between different process types there is a need to understand the diversity of work practices. The purpose of this paper is to challenge the traditional division of business processes into different types. An alternative notion, rooted in social action theories, will be given.

This empirical base for the paper will be a business analysis performed in a mail order setting. During this case study, in which an action research approach was used, different aspects of the practice was being developed knowledge about in order to arrive at an understanding of the mail order company's business processes. This case will be used as an example for how the diversity of work practices can be conceptualised in different business process types.

The next section will present some existing notions of business processes. In the same section the notion of work practices will be elaborated on in order to present a comprehensive view of what to direct attendance towards when the work of one or several organisations is conceptualised. Then, some basic characteristics of the mail order company will be presented by using some characteristics from the notion of work practices. The presentation of the characteristics of the mail order company is followed by an argumentation for a notion to divide the work practice into different process types. The different process types will be exemplified by presenting the business processes at the mail order company.

2 Business processes in work practices

2.1 Transformational and communicational views on business processes

In the traditional view of business processes adopted in business development approaches such as Business Process Reengineering, Total Quality Management, and Process Management one or several organisations transformation of input to output is in focus. How things are done and what things that are done are rather focused than who are doing things (Davenport, 1993).

In contrast to a transformational view on processes there is also the communicational view (e.g. the language/action-oriented view) (Austin, 1962; Searle, 1969; Habermas, 1984). This view is based on the idea that communication is not just transfer of information. When you communicate you also act. Based on this view there also exist a number of process-oriented approaches for business modelling.

The work by Flores and Ludlow (Flores & Ludlow, 1980) has been the initial impetus to a speech-act based conceptualisation of business. They propose to perceive businesses as networks of inter-related commitments created by directives, commissives, assertives and declaratives. Winograd & Flores (1986) built on to this idea and introduced a conversation-for-action schema (CFA), which regards the essentials of the business as patterns of inter-related speech-acts for arriving at successful conversations. A successful conversation covers a number of state changes; someone (A) states a request, someone else (B) makes a promise and then reports completion, which in the end A declares completed. One example of approach for business modelling that emanate from the idea of relating speech-acts to patterns is Action Workflow¹.

Action Workflow (Medina-Mora et al., 1992) regards the conversation flow in an action workflow loop. The basic sequence of actions in the action workflow loop is based on the idea that there is always an identified customer and performer, and the loop deals with a particular action that the performer agrees to complete to the satisfaction of the customer. The action workflow loop is divided into four phases: proposal, agreement, performance and satisfaction. By applying a communicational view on processes, the organisations establishment and fulfilment of commitments are emphasised.

2.2 Different business process types

Authors advocating for a transformational view on business processes (e.g. Davenport, 1993; Harrington, 1991; Rummler & Brache, 1995) identify different types of business processes. These different types have their roots in Porters (1985) value chain, in which a distinction between primary and supporting activities is made. Example of such types business processes are identified in the table below.

Table 1: Different types of business processes according to the transformational view

<i>Author</i>	<i>The different business process types</i>
Davenport (1993)	<ul style="list-style-type: none"> • Customer-facing processes • Product and service development processes • Delivery processes • Management processes
Harrington (1991)	<ul style="list-style-type: none"> • Production processes • Business processes
Rummler & Brache (1995)	<ul style="list-style-type: none"> • Primary processes • Support processes • Management processes

According to the communicational view on business processes, different types of processes are not distinguished. Importantly to note however, is that those business processes according to this view focus on interaction with a *particular* customer. One can therefore state that the communicational view only takes one type of business process into consideration.

A number of uncertainties can therefore be identified:

- Which activities should be included in the different types of business process? (Which activities constitute a certain type of business process?)

¹ Example of other approaches based upon the language/action perspective are DEMO (Dietz, 1999) and BAT (Goldkuhl, 1998)

- Are not some of the examples of the different process types part of each other?
- How about work that is performed for potential customers? Which process types cover such work?

Apparently there is a lack of criteria for business process delimitation. This has also been stated by Davenport (1993) who claims that

Considerable controversy revolves around the number of processes appropriate to a given organization. The difficulty derives from the fact that processes are almost infinitely divisible; the activities involved in taking and fulfilling a customer order, for example, can be viewed as one process or hundreds. The 'appropriate' number of processes has been pegged out from two to more than one hundred (ibid, s 27-28).

One can therefore recognise that there is a need for an ontology to understand both communicative and transformative aspects of practices in order to find criteria for delimiting different business process types.

2.3 The notion of work practices for understanding business processes

The two views, i.e. the transformational view and the communicational view, on business processes, are in conflict with each other (Lind, 2001). A notion of processes used for developing the work of organisations, including information systems, needs to be based upon an understanding of how communication is performed within and between organisations. There is however also a need to understand the transformation performed by the organisation. It is therefore not possible to reduce our understanding of an organisation to just communicative acts or material acts. We need to base our understanding on social action (Goldkuhl & Röstlinger, 2002b), which have the consequence that transformational aspects of processes need to be regarded from an assignment point of view. Assignments are agreed upon, fulfilled and concluded through communicative and material acts. The transformation of basis to results is part of the fulfilment of the assignment. This synthesis is depicted in the figure below.

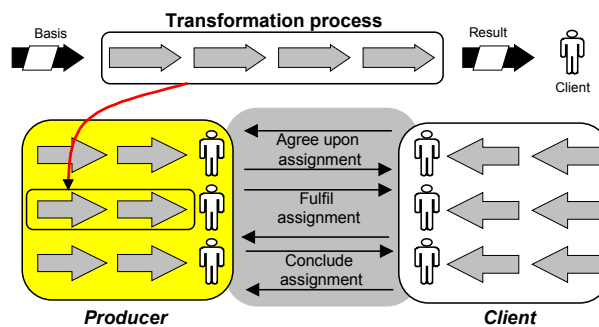


Figure 1: Synthesis: Transformation in an assignment perspective (Lind, 2001)

One of the fundamental characteristics of business processes is customer-orientation. It is therefore necessary to understand ways that businesses interact with their customers. In business interaction, business acts (Lind & Goldkuhl, 2001) are directed from the supplier to the customer as well as from the customer to the supplier. These business acts, which are derived from the notion of social action, are parts of the interaction logic between the organisation and its surrounding. Genuine business interaction is about exchanges between supplier and customer. A business process consists of a number of exchanges between the organisation and a specific

customer (Goldkuhl, 1998; Lind & Goldhuhl, 2001). The fundamental building block of business processes should thus be social action (Lind, 2001). Social actions are communicative and/or material.

Goldkuhl et al (2001) claim that organisations can be viewed as practice systems. This means that they are systems for the performance of organisational actions aiming at producing products of value for customers or other clients. “Practice is a notion, which permits us to change between different levels of abstraction; between the wholeness of a practice and different parts of it and also to different contexts of the practice” (Goldkuhl et al, 2001, pp. 50). A practice² is defined in the following way:

A practice means that some actor(s) – based on assignments from some actor(s) – makes something in favour of some actor(s), and sometimes against some actor(s), and this action is based on norms, knowledge and instruments which are established and continuously changed.

This definition guides the construction of a generic model, the ToP-model (Theory of Practice), of organisations as practice systems (see figure 2). This theory, as business process theories do, emphasises a focus on the ones for whom organisations create value.

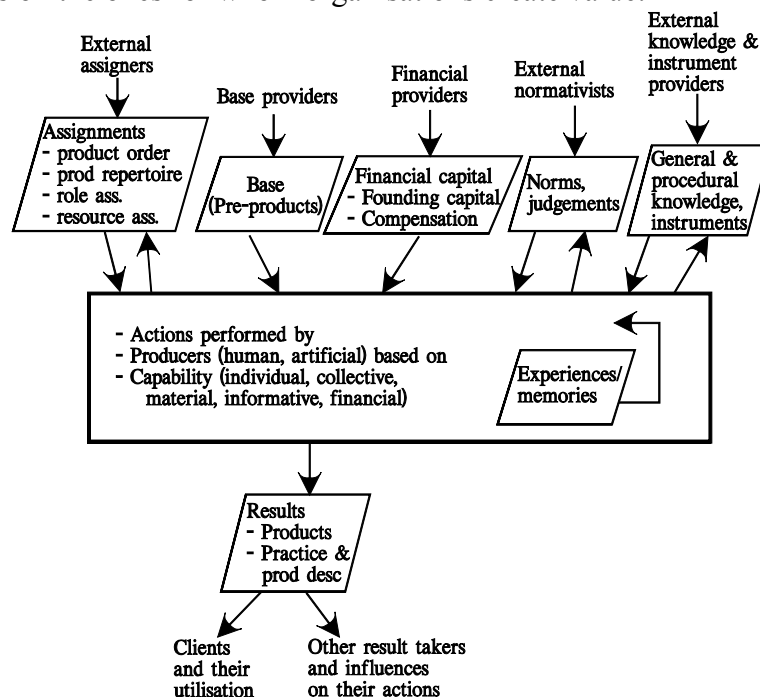


Figure 2: A generic model of work practices (ToP model); (Goldkuhl & Röstlinger, 2002a)

The ToP model emphasise both the transformational view on organisational work by the actions transforming base to results in terms of products to be utilised by the client and the communicational view by the different kinds of assignments co-ordinating the producers actions. The transformation needs to be co-ordinated which is done by different kinds of internal and

² A practice can be seen as a company, a part of a company, several companies, some parts of several companies or some other meaningful unit of activities (Goldkuhl et al, 2001)

external assignments. The same building block used for business processes in figure 1 above constitutes the theory of practice (TOP).

3 The Case: A mailorder setting for business process analysis

The mail order tradition in Sweden has been well established for about fifty years. A project has been initiated with a joint working group consisting of members from different mail order companies, researchers and participants from the Swedish mail order association. This working group studies IT and business development in a mail order cluster (c.f. Edström et al, 2003). The focus is both on a holistic level, i.e. the cluster in itself, and on a detailed level, i.e. on each company constituting the cluster. A business analysis focused on practice and business process analysis performed at one mail order company will be used for illustrating the diversity of work practices. The term *mail order* is applicable not only to mail, but also to telephone, radio, television, and so on and not only to order, but also to fulfilment of the product offered (Cohen, 1996).

In this section the mail order setting will be described. This description will be followed by describing knowledge received from a business analysis performed at one particular mail order company within the mail order cluster. The mail order company will be looked upon using some categories in the ToP-model described in section 2.3.

3.1 The mailorder setting

The Swedish mail order business has developed from the rich textile tradition in Borås and the surrounding area of Sjuhärad. The abundant supply of fairly cheap textile and clothing in the area and the tradition of the traveling salesman ("knalle") that traveled by foot to see his clients in the area was a commercial tradition of the pre-industrial area. The arrival of large scale manufacturing in the textile industry also inspired other forms of trading such as mail order. The mail order firms sent out their catalogues to a large number of potential customers and bought a large part of their products in the Sjuhärad region. When Swedish textile industry could no longer compete with imports the mail order firms switched their supply patterns to cheaper suppliers abroad.

The business of a mail order company follows a particular rhythm since the product assortment is season-based. Assortment planning and development is recurrent for each season and serves as a trigger for forecasting, procurement and production of the mail order catalogue. The catalogue remains the dominating media and sales channel. Nowadays, companies invest heavily in Internet as a communication media and sales channel. The product assortment is based on an analysis of potential customer needs and since transportation lead times from suppliers in Asia are substantial, the task of sales forecasting becomes crucial. The success of a mail order company is highly dependent on a successful assortment planning and forecasting of demand. Traditionally mail order companies have products in their own stock before letting the customers placing orders. This also means that traditional mail order companies have advanced routines for logistics and stock handling. The production of mail order catalogues, the procurement and stocking of products are done in parallel.

Customers receive product information and place their orders by mail, telephone or the Internet. It is rare that the mail order customer can negotiate price or other aspects of the customer offer. When the order is placed the mail-order company issues an order confirmation and reserves the product(s). Based on the order, products will be picked from stock and packed and then delivered together with a request for payment.

Running a mail order company involves a number of critical success factors. They include a competitive assortment, making forecasts of future demand, making optimal procurement and establishing supply chains to ensure that products arrive to the customer according to the customers' expectations. The success of a mail order company is to manage the handling of the work for potential as well as particular customers in an efficient way. One driving force for such efficiency is the support from integrated information technology. Essential functions and relationships to the environment of a traditional mail order company are presented in figure 3.

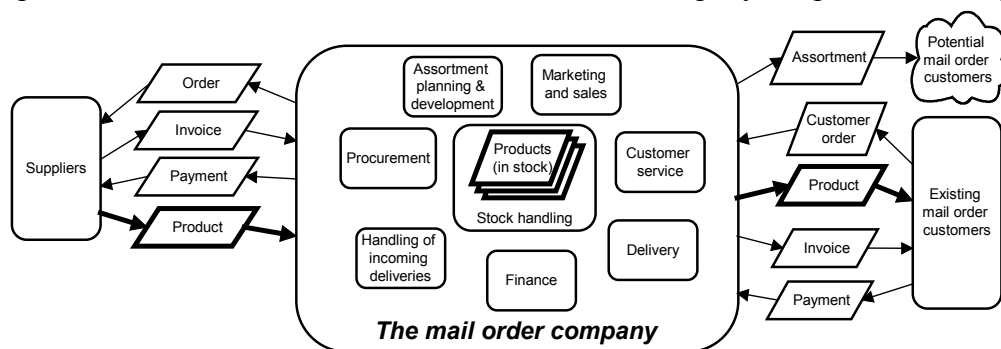


Figure 3: The mail order company and its environment (Edström et al, 2003)

From figure 3 above it can be derived that there are at least two dimensions that are crucial to a mail order business. These two dimensions are the product flow (including information) and the commercial interaction, between the mail order company and their customers as well as between the mail order company and their suppliers. Figure 3 illustrates the business of one firm although most of the time business processes cross boundaries to a number of other organisations.

The ordinary mail order company has a large number of customers where each customer order is relatively small. The margins are low, which means that the success of a mail ordering company depend on large transaction volumes. The low margins have forced the industry to become exceptionally cost efficient. Due to the amount of transactions and the change of the assortment each season the logistics become complicated. To summarise, important characteristics of a mail order company are that it:

- Handles seasoned based products
- Issues standardised offers
- Is customer intensive
- Is dependent on making good forecasts
- Has long planning cycles
- Has an irregular flow of customer orders
- Has a complicated providing mechanism
- Performs multiple procurements per season
- Uses multi-channels for receiving customer orders

- Has advanced procedures for handling returned goods

All these mail order characteristics put demand on the mail order company to be highly efficient and to make accurate prognostications in order to become successful.

3.2 The mail order business

The mail order business, at which a business analysis has been performed, is a company selling fashion clothes. This mail order business is a company within a larger group of companies (a concern) that sell fashion clothes in shops.

In order for the mail order company to perform business, i.e. to receive and fulfil customer orders, there is a need for a developed product assortment. The product assortment is season-based. Planning and development of an assortment initiates the work for an upcoming season. This work is initiated approximately a year prior the start of the season, which means that the mail order company handles issues for multiple seasons at the same time. The planning and development of the assortment is governed by internal *assignments*. Planning and development governs the specification and layout of the mail order catalogues as well as the procurement to be made for the upcoming season. The specific mail order company produce a number of different catalogues in order to expose their assortment and thereby arrive at a stock-level close to zero at the end of the season. The task of forecasting is thus to balance between the amount and type of products that can be sold with profit and the amount and type of products to procure. The *result* of this task is thus mail order catalogues, i.e. *product descriptions*, and made procurements. The goal for a mail order company is that there should be products in stock in accordance to the customer order to ensure short lead-times. Since products are produced in other parts of the world the products need to be in stock by the time of the customer order.

The customer bases the order on the product description, mainly by using mail order catalogues but also through other channels. This specific mail order company has around two million potential buyers, i.e. active customers. The customer order is to be interpreted as an external *product order*. A call centre will receive the order and then forward it to stock-handling and other functions (internal and external) involved in fulfilling the customer order. In the end the *product* (fashion clothes) delivered to the customer will be utilised by the customer. A mail order company dealing with clothing does not facilitate the possibility for the customer to try the clothes on before buying them. Thereby the customer has the possibility to return the clothes within a two-week period, which enables that specific product to be sold to another customer.

The co-ordination of a mail order practice is thus two-folded. First of all it is co-ordinated based on accurate forecasting. There is a lot of work performed by the mail order company without knowing the customer who potentially will buy the product. A lot of work is performed for potential customers. A potential customer can mean any customer. Secondly, there is work performed for particular customers. Parts of the practice are co-ordinated by the external product assignment given by the particular customer. Particular customers are customers that the company involve in their business interaction in different communicative and material exchanges (Lind & Goldkuh, 2001; Taylor, 1993). The practice of the mail order company is governed by product and role assignments.

From this relatively short description it can be concluded that the mail order company has two results:

- Mail order catalogues, i.e. product descriptions, directed towards *potential* customers
- Fashion clothes, i.e. products, to be utilised by *particular* customers

Consequently a distinction can also be made between *development-oriented* and *operative* work. Since the mail order company's assortment is season-based there is a need to continuously plan for and develop new products. This task is development oriented, which occurs from time-to-time. The characteristics of planning and development of an assortment is closely related to product development. Product development is often characterised as development-oriented work in contrast to operative work (Trygg, 1991). The developed product need to be manufactured, shipped and handled in stock before shipped to the customer. This task both addresses the transformation performed at the mail order company and the operative work performed for the customer. Another task of operative work is the commercial interaction, i.e. communicative and material exchanges, performed between the mail order company and the particular customer. In opposition to the development-oriented work operative work occur on a recurrent basis.

The description of the mail order company reveals a mixture of horizontal and vertical co-ordination as well as of horizontal transformation. Co-ordination is many times based on communication (Lind & Goldkuhl, 2002). The logic of this mixture can be derived from the characterisation made of the mail order company's practice. This means that there exists both communicational and transformational aspects of the mail order company, which needs to be taken into consideration when understanding the work performed by such an organisation.

4 Business process type delimitation based on work practice analysis

As can be derived from the description of the mail order company in the previous section one aspect of the diversity of work practices is about the type of action and which type of client the action is performed for. From the description of the mail order company it can be revealed that there is a need for distinguishing between:

- the work performed for potential clients and particular clients
- development-oriented and operative work

Based upon these distinctions, different process types can be identified as depicted in the table below.

Table 2: Determination of different process types (Lind, 2001)

<i>Type of action</i>	<i>Type of client</i>	<i>Potential clients</i>	<i>Particular clients</i>
<i>Development oriented actions</i>		Condition creating processes	Delivery processes
<i>Operative actions</i>		Providing processes	Delivery processes

Delivery processes are processes that cover the interaction with particular clients, and *providing processes* are processes that establish conditions for the interaction with the particular client by providing a basis for possible further refinement. In providing processes, actions performed for potential clients are covered. These actions are oriented towards establishing delivery potentials. Both delivery and providing processes cover operative work. Other conditions are for example

product development, instrument development etc. Such aspects are covered in *condition creating processes*. The work covered by these kinds of processes is development-oriented for meeting future demands from particular clients.

To exemplify the different business processes a process chart of the mail order customer is depicted in figure 4. As can be seen from the process chart, the two results are visualised. The processes for producing these results do however cover different kinds of actions. Actions for producing and delivering the mail order catalogue are covered by development-oriented work while the production and delivery of fashion clothes are covered by operative-oriented work. Some of this operative work is however performed for potential customers, i.e. covered by providing processes, and some for particular customers, covered by delivery processes.

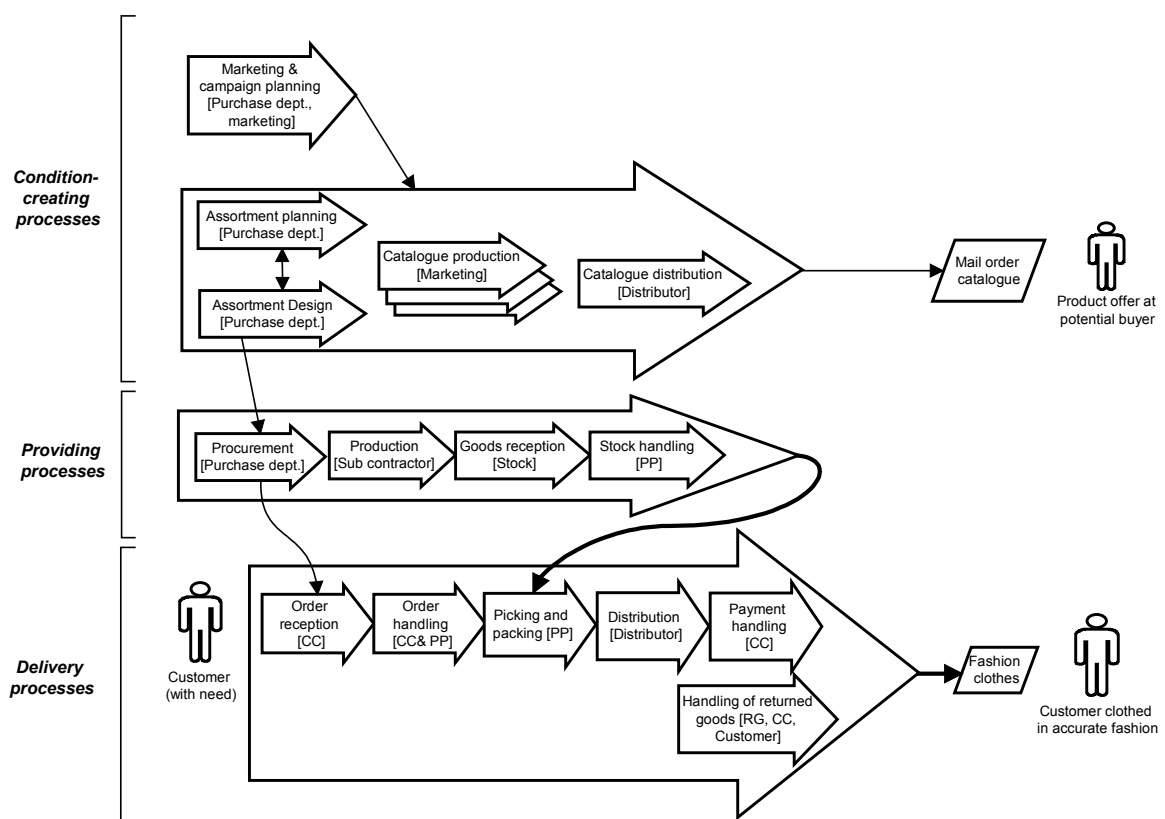


Figure 4: Different types of business processes at the mail order company

As a result for delimiting business process types in this way one can regard practices as consisting of interplays between different sub practices, conceptualised as different types of business processes. Practices are compositions of actors performing actions to produce value for customers by using basis from providers (sub contractors). A practice is therefore a part of a larger practice system. The business as consisting of three types of business processes, i.e. sub practices, is depicted in figure 5 below. Within these three types of business processes, there might be interaction going on with external parties, such as clients (customers), providers (sub contractors) and condition creators. The interplay between business processes thus needs to be regarded as contextually over-lapping. One way of talking about the diversity of work practices is by dividing a work practice into these different sub practices.

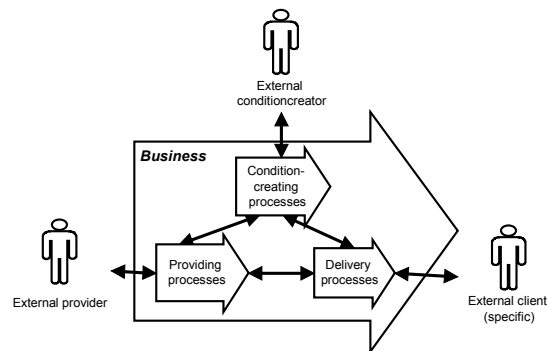


Figure 5: Different process types (sub practices) in work practices

Consequently business process type determination is rooted in the types of results produced and delivered by the practice. It is however not enough to just use the types of result to determine different business process types. For each type of result one needs to take into consideration whether the actions performed for producing and delivering the results are performed for potential or particular clients and whether the actions are operative or development-oriented. The case study performed at the mail order company reveals that the two types of result, i.e. the product description and the product, are dependent on each other. It is problematic to sell something without letting the customer know what delivery potential that the mail order company has.

The criteria for delimiting business process types, based on a work practice view on organisational work, goes beyond the different business process types identified in the traditional views. The following can be said about the business process types identified in section 2.2:

- The division in primary³ and support processes is a difficulty since there is a lack of solid foundations for determining what is core and not. All actions performed by organisations should contribute with value for potential or particular customers. Thereby it is inaccurate to divide something into primary or supporting.
- Management processes have not been treated in this paper, but since business processes should have a specific or potential customer one can question whether management processes are business processes. Naturally organisational work needs to be co-ordinated which is done through internal and external vertical and horizontal co-ordination.
- According to Harrington (1991) one should divide organisational work into production processes and business processes. According to the criteria used in this paper to delimit different business process types production can be part of both providing and delivery processes. Thereby production processes are not an accurate basis for business process type delimitation. Many practices involve production, but it is superior to distinguish between the type of action and who the action is aimed for. Production processes are often parts of business processes.
- Davenport (1993) makes a distinction between delivery processes and customer-facing processes. Why such a distinction when delivery means to provide the customer with products. According to the criteria used in this paper delivery processes involve all interactions, communicatively and materially, performed with the particular customer. The delivery is thereby included.

³ Note that other ways to express primary processes often used are *core* processes and *main* processes

- Further Davenport (ibid) distinguishes product and service development processes. Such a distinction is accurate, but how about other development-oriented actions, such as instrument development and knowledge management, performed for potential clients?
- Within the communicational view only one type of business process can be identified. According to this view, business processes cover the supplier's interaction with a particular customer. What about all other actions performed by organisations? The case used for illustration in this paper show that there is a substantial amount of work performed for potential customers. Without focusing both the work performed for potential and particular customers one might miss very important aspects of how delivery potential and incitements for the customer to place an order is established.

When adopting a perspective on business processes founded in social action the action characteristic becomes important for business process determination. The need for criteria for business process determination searched for by Davenport (1993), section 2.2, is partly given an answer to in this paper. The criteria *type of client* and *type of action* results in superior business process types in relation to the ones identified in the transformational view on business processes.

It is however important to note both transformational and communicational aspects of business processes are taken into consideration. So is done through the comprehensive view achieved through the model of generic practice (ToP). Practices produce result. Thereby it is rational to identify the types of result produced and delivered by the practice and then distinguish the different actions needed to arrive at such types of result. These actions need to be studied from the perspective of who the work is performed for and what type of action it is performed in order to identify different types of business processes. Each business process type can then be regarded as a sub practice.

5 Conclusions

The problem dealt with in this paper is how to distinguish different business process types. Many times business analyses focusing business processes ends up in endless discussions whether actions are core or supporting. By adopting a perspective on organisational work as work practices one can avoid such discussions and thereby adopt distinct criteria for distinguishing between different business process types. The perspective on organisational work as practice is founded in social actions. The view on business processes adopted in this paper has the same foundation.

By distinguishing the characteristics of actions performed for producing and delivering different results of the work practice three different business process types can be distinguished. These are:

- ***Delivery processes***, which includes action that takes place in the supplier's interaction with *particular clients*. Delivery processes cover both *operative and development-oriented actions*. One example of delivery processes involving both types of actions are selling, developing, producing, and delivering tailor-made products.
- ***Providing processes***, which includes *operative actions* for establishing delivery potential. Actions covered by providing processes are performed for *potential clients*.
- ***Condition creating processes***, which include *development-oriented actions* performed for *potential clients*.

These business process types can also be regarded as sub practices that can be characterised in the same way as the practice used as a basis for division. The identification of sub practices is one account for taking the diversity of work practices into consideration.

To illustrate the diversity of work practices a case study performed at a mail order company has been used. This case has been chosen since it has a rather simple delivery process. There does not exist any variants of delivery, i.e. the same actions are performed in different commercial interactions. The actions performed do not differ dependent on different customer relationship or different products. Further the delivery process is based on standardised offers given to the customer. There is however a substantial amount of effort performed for potential customers – both in terms of operative and development-oriented work.

Within the literature arguing for a transformational view on business processes different business process types are identified. In this paper it is however claimed that criteria for delimiting business process types are missing and thereby one might miss important aspects of work practices when interpreting them as consisting of business processes. Think of what it would mean to not understand the existence of actions performed for potential customers at the mail order company. Business process types should by its prefix direct the attendance towards relevant aspects of the business.

The criteria used for characterising the actions performed for producing and delivering different types of result are the *type of client* (potential or specific) the action is performed for and the *type of action* (operative or development-oriented). By combining instances of these criteria different business process types and thereby diversity of work practices can be distinguished. A business process perspective on organisational work means customer-orientation. It is however important to note that customer-orientation does not mean that all action should be performed for a particular customer. There are some actions, operative and development-oriented, that are performed to establish delivery potential and thereby anticipate future interaction with particular customers.

What however can be derived from other cases is that business processes come in variants (Lind, 2001). It is common that supplier organisations have different ways of performing business dependent on different customer relationships and different products. Such diversity of performing business results in a number of delivery variants. Different business process types is thus not an issue for explaining all the diversity of work practices.

Based on the research reported some issues of further research can be identified. There are a number of dependencies between different categories used to characterise a work practice. A transformational view on business processes is for example an issue of the dependency between the base for and the result of the work practice. Another dependency that would be interesting to further investigate is the one between the financial capital and the assignment?

Another issue for further research is the dependency between different sub practices, i.e. links between actions covered by the different business process types. Business processes contextually overlap which means that the result of one sub practice is a condition for another sub practice. Since work practices, and thereby also sub practices, are co-ordinated by assignments it would be

interesting to further investigate what this dependency means in terms of co-ordination. Sub practices involving actions for potential customers must be co-ordinated by internal assignments while sub practices involving particular customer mainly are co-ordinated by external assignments. Thereby one can question whether a differentiation of work practices in sub practices could be used to arrive at an understanding of how external product assignments are forwarded within the organisation. This should be done in order to understand the fulfilment of the customer order, to ensure that commitments towards the customer are made on solid foundations and that relevant delivery potential are established.

Acknowledgements

I especially wish to acknowledge Anders Hjalmarsson and Jan Olausson, University College of Borås, who have been co-operating in the case study generating the empirical data used in this paper. This paper is based on work performed within the project “The use of IT in innovative business models within the mail order industry” founded by the KK-foundation.

References

- Austin J. L. (1962) *How to do things with words*, Oxford University Press
- Checkland P. (1981) *Systems thinking. Systems practice*, John Wiley, Chichester
- Cohen W. A. (1996) *Building a Mail Order Business – a Complete Manual for Success*, fourth edition, John Wiley & Sons, New York
- Davenport T. H. (1993) *Process Innovation – Reengineering Work through Information Technology*, Harvard Business School Press, Boston
- Dietz J. L. G. (1999) *Understanding and Modelling Business Processes with DEMO*, Proc. 18th International Conference on Conceptual Modeling (ER'99), Paris
- Edström A., Lind M., Ljungberg J. (2003) *Learning, Innovation and IT-usage – A Research Approach to Regional Development*, *submitted paper*
- Engeström Y. (1991) *Developmental work research: Reconstructing expertise through expansive learning*, in Nurminen M., Järvinen P., Weir G. (Eds.) *Proceedings of human jobs and computer interfaces conference*, University of Tampere
- Flores F., Ludlow J. J. (1980) *Doing and Speaking in the Office*, In: Fick G., Sprague R. H. Jr. (Eds.) *Decision Support Systems: Issues and Challenges*, pp. 95-118, Pergamon Press, New York
- Goldkuhl G. (1998) *The Six Phases of Business Processes – Business Communication and the Exchange of Value*, Accepted to *Beyond convergence: The 12th Biennial ITS conference – ITS'98*, Stockholm
- Goldkuhl G., Röstlinger A. (2002a) *The practices of knowledge – investigating functions and sources*, accepted to *the 3rd European Conference on Knowledge Management (3ECKM)*, Dublin
- Goldkuhl G., Röstlinger A. (2002b) *Towards an integral understanding of organisations and information systems: Convergence of three theories*, in *Proc of the 5th International Workshop on Organisational Semiotics*, Delft
- Goldkuhl G., Röstlinger A., Braff E. (2001) *Organisations as practice systems – integrating knowledge, signs, artefacts and action*, in *Proceedings of Organisational Semiotics, IFIP 8.1 Conference*, Montreal
- Habermas J. (1984) *The theory of communicative action I, Reason and the rationalization of society*, Beacon Press
- Harrington H J (1991) *Business Process Improvement: The Breakthrough Strategy for Total Quality, Productivity and Competitiveness*. McGraw Hill, New York.
- Lind M. (2001): *Dividing Businesses into Processes – Foundations for Modelling Essentials*. Accepted to IFIP WG 8.1 Working Conference on Organizational Semiotics: *Evolving a Science of Information Systems*, 23-25 juli 2001, Montreal

- Lind M., Goldkuhl G. (2001) Generic Layered Patterns for Business Modelling, in Schoop M., Taylor K. (Eds) Proceedings of the Sixth International Workshop on the Language-Action Perspective on Communication Modelling (LAP 2001). Aachen University of Technology
- Lind M., Goldkuhl G. (2002): Questioning two-role models or who bakes the pizza?, Accepted to The Seventh International Workshop on the Language-Action Perspective on Communication Modeling (LAP 2002), June 12-13 2002, Delft
- Medina-Mora R., Winograd T., Flores R., Flores F. (1992) The Action Workflow Approach to Workflow Management Technology, In Turner J., Kraut R. (Eds.) Proceedings of the Conference on Computer-Supported Cooperative Work, CSCW'92, ACM Press, New York
- Porter M. E. (1985): *Competitive Advantage – Creating and Sustaining Superior Performance*. Macmillan, New York
- Rummler G. A., Brache A. P. (1995) Improving performance. How to manage the white space on the organization chart, Jossey-Bass, San Francisco
- Searle J. R. (1969) Speech Acts. An Essay in the Philosophy of Language, Cambridge University Press, London
- Taylor J. R. (1993) Rethinking the Theory of Organizational Communication: How to Read an Organisation, Ablex, Norwood
- Trygg L. (1991): *Engineering Design – Some Aspects of Product Development Efficiency*. Chalmers Tekniska Högskola, Göteborg
- Winograd T. , Flores F. (1986) Understanding Computers and Cognition: A New Foundation for Design, Ablex, Norwood NJ