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Software outsourcing partnership process – a life cycle?

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Abstract — Van de Ven and Poole contend that all the specific theories of organizational change and development used in management research come back to four basic theories: life cycle theory, evolution theory, dialectic theory, and teleology, and that most of the organizational theories are some kind of combination of these four. In outsourcing research most of the researchers implicitly assume that an outsourcing process follows the life cycle theory. In this study we analysed a software outsourcing partnership model and found out that the model indeed followed life cycle theory.

Keywords — software, outsourcing, partnership, life cycle.

I. INTRODUCTION

The focus of this research is on outsourcing partnerships – the process involved in the formation and management of a software research and development (R&D) outsourcing partnership. We are interested in it especially from the organizational change process point of view.

II. ORGANISATIONAL CHANGE PROCESSES

To understand and explain better the reasons and ways behind organizational change the management scholars have borrowed metaphors, concepts, and theories from many other disciplines. This has given many novel views into the processes of organizational change. A combination of theories often gives a more comprehensive understanding of a complex phenomenon [1]. Van de Ven and Poole [1] contend that all the specific theories of organizational change and development used in management research come back to four basic theories: life cycle theory, evolution theory, dialectic theory, and teleology, and that most of the organizational theories are some kind of combination of these four.

‘A life cycle’ is a metaphor often used by management scholars to explain organisational behaviour. The Oxford English Dictionary gives the following definition of a life cycle: “The course of human, cultural, etc., existence from birth or beginning through development and productivity to decay and death or ending.” In management research, next to teleology, it is probably the most often used explanation of the development of an organisational entity

(organisation, product, venture ...) from its birth to its termination [1]. In the **life cycle theory** (Fig. 1) the process of change in a *single entity* is depicted as going through different, necessary, stages. The mode of change during a life cycle is *prescribed*, meaning that the development of the entity is channelled in a predetermined direction where the events are stable and predictable and the changes happen over the long term and are small, thus reducing uncertainty in the process.

The **teleological theory** explains development as proceeding toward a goal, which guides the movement of an entity. The entity itself is purposeful and adaptive; it constructs an end state for itself, takes the actions needed to reach the end state, and monitors its progress. This can be seen as a repetitive process that restarts again and again, as, after reaching the original end state, the entity modifies the goals once again based on what it has learnt. The mode of change is *constructive*, meaning that there is no necessary sequence of events, as in the life cycle theory. However, development results from social construction among individuals within the *single entity* and it is always something that helps the entity in reaching the end state. (ibid.)

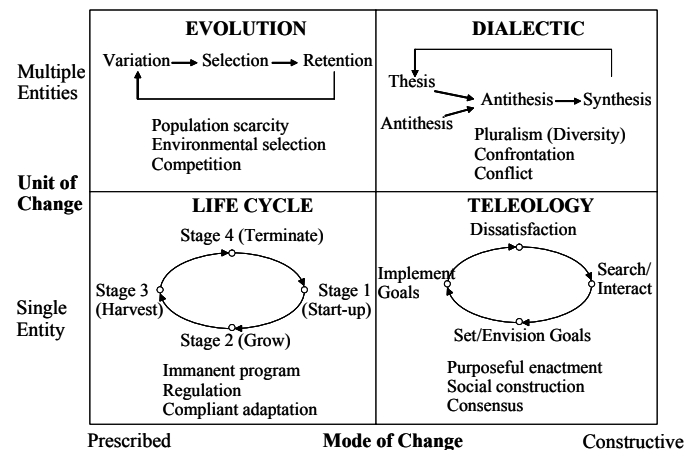


Fig. 1. Process theories of organisational development and change [3, p. 520]

In the **dialectic theory** the assumption is that an organisational entity exists in a world where there are

colliding forces and contradictory values that compete for control and domination. These oppositions may be either internal or external to the organisational entity, caused by conflicting goals inside the organisation or between itself and another organisation. In any case, there are two or more entities engaged. Changes in the organisation happen when the opposing forces gain enough power to confront each other. The opposing forces, each with its theses and antitheses, may come to some kind of a compromise, a synthesis. However, it is possible that a synthesis cannot be achieved, and that one or the other of the forces wins over. In any case, a status quo is achieved again and a new entity has been created. In time, the synthesis or an antithesis becomes the thesis for the next cycle of change. The mode of change is *constructive*; the sequence by which the thesis and the antithesis confront each other cannot be predicted.

In the *evolutionary theory* change takes place through competition, caused by scarcity of resources, between multiple entities. The entities transmute by creating novel forms of organisations – usually these variations seem simply to happen, randomly or blindly. Competition for scarce resources forces selection between these organisations. Retention is needed for maintaining the previous forms and practices when the evolutionary loop starts again. The mode of change is *prescribed*; even though the mutations seem to be sudden and dramatic, the process has prescribed rules according to which the change either occurs or does not.

III. RESEARCH PROPOSITIONS AND RESEARCH METHODS

In outsourcing research most of the researchers implicitly assume that an outsourcing process follows the life cycle theory. We wanted to find out if this is really the case and thus set two propositions:

P1. The life cycle theory can be found behind the software research and development outsourcing partnership process

The second proposition is to find out if the different phases of the assumed life cycle process also follow the life cycle theory:

P2. All the phases of the software research and development outsourcing partnership process follow the life cycle theory independently of the process as a whole.

To evaluate the propositions we use the software outsourcing partnership model presented by Kinnula [2]. Kinnula's model is based on literature and complemented with empirical data collected from a software outsourcing partnership case.

Kinnula's model (Fig. 2) considers the outsourcing partnership process to consist of four phases: *Planning*, *Developing*, *Implementing*, and *Managing the relationship*.

In the *Planning* phase outsourcing team members are selected, supportive role of company top management is discussed and business plan for the outsourcing is created. Selection of the most beneficial relationship type needs to

be done when creating the business plan and based on that a definition of the partner selection criteria. [2]

In the *Developing* phase the most important decision of the whole outsourcing process is faced: whether to continue with the outsourcing partnership process or to terminate it. Discontinuing the process would mean either that the customer company needs to be able to take care of the planned-to-be-outsourced work, or that it is necessary to go back and start the whole outsourcing partnership process again with revised objectives based on the new understanding of the issue. If the process is continued the most important result of this phase is an outsourcing partnership agreement. [2]

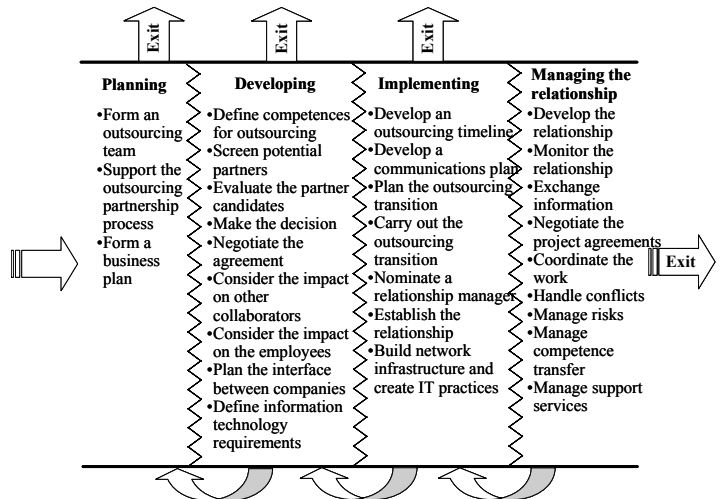


Fig. 2. The outsourcing partnership model [4, p.159]

Before making the decision, however, the potential partners need to be screened, that is, identified and evaluated. If the decision is to continue the outsourcing partnership process, agreement negotiations are started with the selected partner candidate(s). Consideration of how the employees will be affected by the decision is needed as well as the creation of a concrete timetable and communications plan for outsourcing. [2]

The main goal of the *Implementing* phase is to make the relationship work, firstly by getting the transition done (planning it and carrying it out) and secondly by establishing the relationship by creating management processes and setting up the relationship management organization. During the transition, once again, clear support from the top management of both companies is needed, e.g. in the form of briefings for the employees. High level of attention and prompt feedback are also important. This phase is for making the intentions and plans a reality. [2]

In the last phase of the model – *Managing the relationship* – the relationship is up and running and needs continuous maintenance and development. New project agreements need to be negotiated and problems in the current projects handled. [2]

IV. ANALYSIS

Based on the model and case material presented in [2] we sought to investigate the following:

Proposition 1: The life cycle theory can be found behind the outsourcing partnership process

The *teleological theory* is categorised by an entity proceeding towards a goal monitoring its progress and learning from the process itself [1]. There is no necessary sequence of events. The last characteristic in particular makes it clear that the outsourcing partnership process does not follow the teleological theory. While the process does have goals, the main process phases follow each other in a distinct and necessary order. Also the process as a whole does not repeat itself, but instead runs only once and the learning of the process is mainly used afterwards, in building a possible new outsourcing partnership, rather than to guide the process execution while it is running.

In the *dialectic theory*, colliding forces and contradictory values compete to gain control and domination. This is caused by conflicting goals either inside the organisation or between itself and another organisation. [1]

Although it is true that there are usually colliding forces within a company, and also in an outsourcing partnership process (e.g. in choosing the relationship type), it would be an exaggeration to claim that such conflicts are the fundamental nature of this process. It is more likely that the dialectic theory has stronger role before the actual outsourcing partnership process begins, i.e. when making the strategic decision of whether to outsource or not.

The *evolutionary theory* is based on competition caused by scarcity of resources. New forms of organisations are created, usually randomly or blindly. The mode of change is prescribed. Competition for scarce resources forces the selection between the new forms of organisations. [1] This type of competition was not observed in the outsourcing partnership process. Again, similar kinds of situations may exist during that process but they are not in any way in a dominant role.

In the *life cycle theory* an entity goes through different, necessary, stages. The mode of change during a life cycle is prescribed. The events are stable and predictable and the changes are small and take place over a long time period. [1]

In the case of the outsourcing partnership process the stages (called phases in [2]) follow each other in a prescribed order, although on detailed level the line between different phases may be hazy and the phases can occasionally be running concurrently, e.g. if a certain activity from an earlier phase needs to be re-done during a later phase. However, when viewed as a whole, the phases follow each other in a necessary sequence producing input for the next stage and (in case of *Developing* and *Implementing* phases) depending on the input from the previous stage. The events (activities and tasks) during the outsourcing partnership process are predictable, even though they do not always happen sequentially. They are however usually dependent on each other in some way. The

process has a beginning (the strategic need for the relationship) and an end (the outsourcing partnership ends for some reason). The organisational changes, when needed, are actually not small and they happen over a short time period, but still, the main process of the outsourcing partnership in the customer company clearly follows the life cycle theory.

However, things are not as simple as that when a larger scheme is considered. If we take a step *further away* we can see that the relationship is a system of two entities – the customer and the partner company. Hence both forming and managing the relationship involve two entities communicating and affecting the life-cycle process, both with their own goals that are often somewhat contradictory. This set-up is by nature dialectic. For the well-being of a partnering relationship it is important that both companies win in some way, and hence the result is more often a constructive synthesis, rather than the victory of thesis or antithesis (i.e. one entity's goals overrunning the other's).

Based on the analysis above it can be said that indeed, the life cycle theory can be found behind the outsourcing partnership process, and thus the first proposition has been proved true – within the scope set for this study (i.e. the outsourcing partnership process in itself). However, in a larger scope the interplay between the companies (and their respective processes) is more dialectic in nature.

The second proposition for this study was set as follows:

Proposition 2: All the phases of the outsourcing partnership process follow the life cycle theory independently of the whole process.

The outsourcing process can be divided very easily into four phases. The first three phases (*Planning*, *Developing*, and *Implementing*) form a natural continuum, where they follow each other and all of them together form the life cycle of *creating an outsourcing partnership*: it has a beginning (the strategic need for the relationship) and an end (a working relationship exists). The phases clearly follow each other in a tight sequence and the only reason for the existence of each phase is to produce input for the following phase.

Individually, however, these phases do not clearly follow any particular theory. Comparing the activities of the *Planning* phase against the theories of organizational change does not yield a clear match. The phase is not self-steering (the teleological theory), and it is not characterized by conflict (as the dialectic theory), nor about competing activities (the evolutionary theory). The closest it comes to is the life cycle theory as the events during the phase are predictable and to some extent depend on each other. However, a life cycle needs to have a clear end, which is not the case in the *Planning* phase. Against this evidence it is clear that the second proposition is not valid for this phase.

The characteristics of the *Developing* phase do not match any of the theories of organizational change either. The activities are not sequential enough to form a life cycle (the life cycle theory), the phase is not self-monitoring and self-

steering (the teleological theory), it is not driven by conflict and collision (the dialectic theory), nor characterized by parallel, competing activities (the evolutionary theory). As such, the second proposition is not in accordance with the characteristics of this phase.

When analyzing the activities of the *Implementing* phase against the theories of organizational change and against the second proposition, the result is the same as with the previous phases. First, there is no correspondence to any of the theories: the activities do not form a life cycle (the life cycle theory), the phase is not self-steering (the teleological theory), it is not characterized by conflict (the dialectic theory), nor by competing activities (the evolutionary theory). Second – as the phase does not follow a life cycle theory, the second proposition is not valid for this phase.

Characteristics of the dialectic theory and evolutionary theory can be found in the phases, e.g. conflicts at culmination points where big decisions have to be made, but it cannot be said that such characteristics would dominate the phases.

The last phase – *Managing the relationship* – is, however, different. When the whole outsourcing partnership process is contemplated, this phase is clearly the last phase of the life cycle, and continues naturally from the completion of the first three phases. But when the phases are viewed individually this phase is seen to be dissimilar to the first three: it takes a long time (possibly over ten years) and it is also non-deterministic, as the duration of the phase is indefinite and is influenced by the changes the future has in store for the companies engaged in the relationship. Hence, when the relationship begins it is not usually necessary to set an end-date for it. The sequence of events included in the phase is not determined. Thus, the life cycle theory is clearly not suitable for this phase. Due to lack of data from the case it is not possible to state with confidence what the role of dialectic and evolutionary theories in managing the relationship is. However, they tend to be by nature rather disruptive whereas relationship management is more about seeking harmony and balance. Hence it is unlikely that they would dominate this phase either. On the contrary, the phase does seem to have qualities that liken it to the teleological theory: an ongoing outsourcing partnership always has defined goals that guide the relationship and the actions taken. The relationship is also constantly monitored. Yearly strategic plans for the company together with a vision for the relationship and the monitoring of results all mean that it is necessary to define the goals again. Hence new actions need to be taken to reach these revised goals. When the process is seen from within the customer company there is just one entity – the customer company itself – acting in its own best interests. All these facts point to the teleological theory.

Yet things are not as simple as that if we take a step *deeper* into the management of the relationship – at least into a software R&D relationship. Here, again, a life cycle can indeed be found: the business cases (projects) during the relationship take the form of a life cycle. The need for a

new collaboration project triggers the process, negotiations between companies start, the collaboration project gets underway, and finally, the conclusion of the project also ends this life cycle. However, it is noteworthy to repeat that while this applies to software R&D relationship, it may or may not be true to other business areas, e.g. service outsourcing.

Summarizing the discussion above, based on the analysis of the empirical material and keeping within the scope of this study (i.e. the outsourcing partnership process in itself) the second proposition has been proved wrong. None of the phases individually follow the life cycle theory. Instead, the first three phases do not seem to follow any particular theory and in fact can exist only in the context of creating an outsourcing partnership. The last phase follows mainly the teleological theory. However, if the scope is extended to cover the interplay between the companies, characteristics of the dialectic theory can also be found, at least in software R&D relationships.

V. CONCLUSIONS

The results of this study are based on one model of software outsourcing partnership and thus cannot very easily be generalised. Also, as some of the models underlying Kinnula's model [2] are supposed to be life cycle models the results of this study are not very surprising. However, it would still be interesting to test the same theory in other similar type of models and cases.

To conclude the findings of this study, in the following figure (Fig. 3) the main theories found behind an outsourcing partnership process are presented. Even though in Kinnula's study there is not as much material available about the case study's partner company as there is concerning the customer company, the material strongly suggests that the partner company follows a similar type of life cycle, as well as following the teleological theory during the relationship management phase. To acknowledge the lack of material, however, we have drawn the partner company process phases with dashed lines.

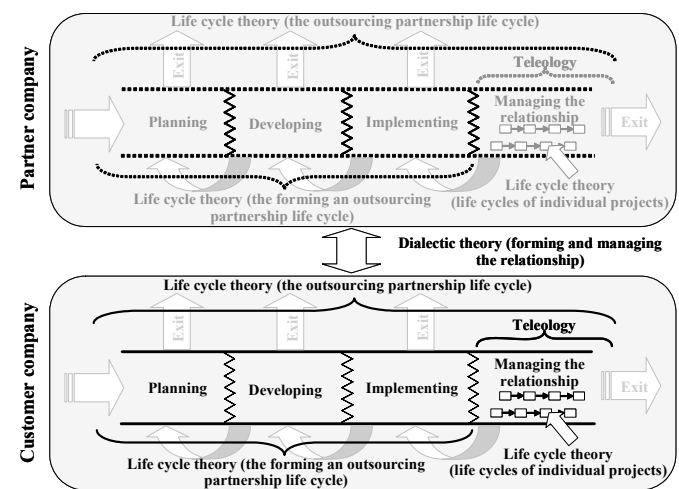


Fig. 3. Theories behind outsourcing partnership process

The outsourcing partnership process is a life-cycle process, of four phases. When limiting the viewpoint to one company only, the first three phases form a sub-process of *forming an outsourcing partnership*, and the last phase is about managing the said relationship. The entire process, as well as the sub-process, follows the life cycle theory, but the last phase is an indefinitely running, self-guided process that follows the teleological theory. Inside the Managing the relationship phase life cycles of projects can be found. When the partnership is seen as a system of two entities, however, the interplay is characterized by conflicting interests as per dialectic theory. In a healthy situation the progress through the processes is driven by constructive synthesis that creates a win-win situation between the companies. As Van de Ven and Poole [1] contend different viewpoint gives us different results and a different understanding of the phenomenon of outsourcing partnership. One theory is not enough to give answers to all the questions and by changing the viewpoint and combining different viewpoints and theories, a more comprehensive understanding of the phenomenon can be reached.

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