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## Patterns of Organizational Flexibility in Knowledge-intensive Firms – Going Beyond Existing Concepts\*\*

We analyze patterns of flexible employment among the highly qualified workforce in knowledge-intensive firms. Our conceptual starting point is the *Flexible Firm* that can be traced back to Atkinson. On the basis of a qualitative field study in ten organizations, we show different patterns in employment policy and highlight phenomena that go beyond Atkinson's concept. It becomes obvious that flexible contracting with an external workforce is a function of allocating expertise instead of gaining numerical flexibility and is furthermore rather driven by knowledge workers than by firms. For systemizing the results of our explorative field work we propose the model of an *Amoebic Organization* as an alternative flexibility concept.

Key words: **flexible firm, flexible employment, organizational flexibility, strategic management** (JEL: D23, M51, M54)

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## 1. Introduction

There has been a continuous increase of flexible employment in terms of part-time work, short-term and independent contracting, and temporary agency or contract company employment among the highly qualified workforce during the last decade. In 2011, 34.3% of employees with tertiary education in the EU, respectively 35.9% in Germany, had a work arrangement with at least one flexibility characteristic (Eurostat, Labour Force Survey, 2012). Moreover, in knowledge-intensive industries, such as IT, media or consultancy, non-standard employment contracts often predominate (e.g. Kaiser et al., 2007; Süß & Kleiner, 2007).

This phenomenon of increasing contract flexibility of the highly qualified workforce has often been mentioned in recent literature (e.g. Storey et al., 2002; Connelly & Gallagher, 2004; Kaiser & Rössing, 2010), but there is still a lack of conceptual framing. Flexible employment as it occurs in knowledge-intensive fields cannot easily be subsumed under existing flexibility concepts. The most popular concept can be traced back to Atkinson (1984). He characterizes groups of employees with respect to their formal work contract and distinguishes between core and peripheral groups and related employment conditions. According to Atkinson (1984), the logic for the segmentation between different groups of employees on a contractual basis is to gain different forms of flexibility: While an internal, mostly highly-skilled core workforce increases functional flexibility, an external peripheral workforce primarily ensures numerical flexibility.

With respect to the group of highly-skilled knowledge workers, a distinction between the categories of functional and numerical flexibility and related contract policies sounds less convincing since all flexible knowledge workers bring functional and numerical elements into the organization (for critical discussion, see also Pollert, 1988; Kalleberg, 2001). Thus, other reasons for internal and external employment seem to be decisive. Atkinson's concept meets the logic of organizations with many low skilled employees. Since the skill level is not a demarcation line in knowledge-intensive fields with flexible contracting, the question arises whether there are alternative reasons and principles of flexible employment. If there are reasons, how can alternative strategies of flexible employment that go beyond the introduced logic of functional and numerical flexibility integrated adequately in a conceptual framework?

It is the aim of our paper to analyze the phenomenon of contract flexibility among the highly qualified workforce thoroughly and to contribute to a concept of flexibility that meets today's situation in knowledge-intensive firms. We assume that the interrelation between functional and numerical flexibility and contract policies changes and that we have to find descriptions going beyond this classification.

In the next section, we introduce Atkinson's concept of the *Flexible Firm* in order to understand the key variables of this leading approach and how they are related to each other. Moreover, we confront this concept with a critical discourse to derive thoughts for its further development. In order to contribute to this development, we present a qualitative field study of knowledge-intensive firms coping with flexible employment contracts among the highly qualified workforce. In our final discussion, we

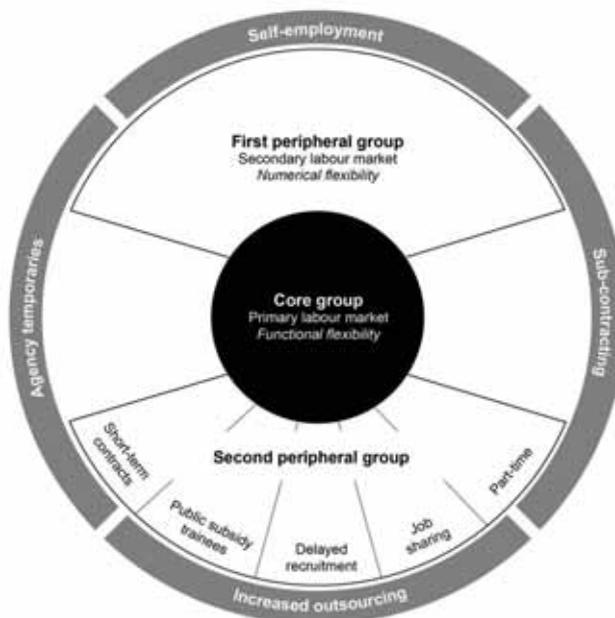
provide suggestions how existing concepts of flexibility can and need to be further developed.

## 2. Patterns of organizational flexibility in scientific discourse

### 2.1 Atkinson's model of the Flexible Firm

The “most influential model” (Kalleberg, 2001, p. 484) of organizational flexibility is Atkinson's description of the *Flexible Firm* (1984). He describes a one-dimensional model of organizational flexibility with a focus on employment contracts which are linked to the employees' skills. Atkinson makes a distinction between internal functional flexibility, on the one hand, and external numerical flexibility, on the other hand. According to Atkinson, a workforce segmentation into core and peripheral groups enhances organizational adaptability to changing environments. A permanent, highly qualified and committed *core* workforce secures functional flexibility. Atkinson (1984, p. 29) characterizes the core workforce as “full-time permanent career employees” that secure competitive advantage and obtain skills that “cannot readily be bought-in.” As a consequence, they have to be internalized. In contrast to this, non-standard, *peripheral* contractual workers buffer market fluctuations and enhance cost effectiveness primarily in terms of numerical flexibility – and also protect the core workforce. With regard to this, Atkinson differentiates two peripheral groups. While the first group provides an organization with numerical flexibility, a second group of part-time workers and short-term contractors secures functional flexibility: “At the core, the emphasis is on functional flexibility; shifting to the periphery, numerical flexibility becomes more important” (Atkinson, 1984, p. 29). As an external group, specialized sub-contractors, self-employed and agency temporaries complete the core-periphery model, encouraging both numerical and functional flexibility.

Figure 1: Atkinson's Flexible Firm



Even though peripheral workers have a potential to increase functional flexibility as well, from the perspective of organizational competitiveness, their role is not considered as related to core competences. The periphery of external employees rather performs tasks in the field of non-core competencies, e.g. tax consultancy in a mechanical engineering company (Martínez-Sánchez et al., 2010). In a similar manner, Lepak & Snell (1999) argue that organizations focus on externalization if the workforce is of limited strategic value and can be purchased easily on the external labor market, whereas the internal workforce is of strategic relevance.

## **2.2 The Flexible Firm in scientific discourse**

Atkinson's model of the *Flexible Firm* is still the dominant concept for systemizing contract policies but it "has been the subject of lively and often critical debate" (Kalleberg, 2001, p. 484). This is due to a simplistic dualist polarization of the core and the periphery. Furthermore, this classification remains vague as not only the peripheral, but also the core workforce defined by Atkinson seems to be more complex than originally thought. Walsh and Deery (1999, p. 50), for example, suggest that: "employment systems are not simply bifurcated"; part-time and temporary workers rather "might constitute, both numerically and strategically, the core component of a company's workforce." Consequently, the interdependency suggested between the core and the periphery workforce seems to be ambiguous as the periphery not only serves the purpose of buffering the core.

Another critique goes back to Pollert (1988, p. 298). She criticizes the model as a fusion of "description, prescription and prediction" and especially disagrees with the normative elements of the theory that managers may combine functional and numerical flexibility deliberately. Moreover, there are doubts with respect to the empirical evidence. As Pollert (1988, p. 296) states, the model appears more than "a conceptual strait-jacket than an analytic tool."

Kalleberg (2001) pushes the discussion on the *Flexible Firm in a New Century* and examines the linkages between functional and numerical flexibility, since some organizations follow internal and/or external labor strategies. He especially criticizes the fact that Atkinson's model is too firm-centered and disregards that organizations may obtain flexibility through networks, respectively cooperation with other organizations. Against this background, he points out that more research is needed on organizational strategies to achieve flexibility.

From our point of view, a two-dimensional grid including quantitative and qualitative aspects in terms of numerical and functional flexibility, on the one hand, and internal versus external flexibility, on the other hand, could be taken into consideration to systematize organizational flexibility (Tsui et al., 1995; Lepak & Snell, 1999; Kalleberg, 2001; Keller & Seifert, 2005). This distinction would especially help to frame cases where flexibility is considered in the light of organizational core competencies and strategic learning issues (March, 1991; Lepak & Snell, 1999; Kaiser & Rössing, 2010; Martínez-Sánchez et al., 2010). In these cases, there is an emphasis on functional flexibility and awareness that both internal and external employment concepts contribute to it. Consequently, flexible contract arrangements occur in another light than numerical flexibility, as suggested by Atkinson.

To sum up, Atkinson offers a framework that meets flexibility issues, as considered in the 1980s, and treats policies in employment contracts as a function for optimizing flexibility aims. However, nowadays there is the need for a further development of the conceptual framework as the distinction between functional-internal and numerical-external flexibility especially seems to be less convincing in knowledge-intensive fields. Moreover, the link between flexibility needs and contract policy seems to be too narrow. If flexibility needs matter, it can be expected that they are not only a pure matter of contract policy – other HR functions tend to be relevant as well. With a view to recent literature, there are certain considerations which indicate new directions for a flexibility concept.

### ***2.3 Thoughts beyond the Flexible Firm***

There are certain approaches leading to an alternative concept of organizational flexibility in today's state of the art literature. According to Volberda (1998) or Sopelana et al. (2010), the combination of specific fields leads to *metaflexibility* as the ability to access new knowledge from outside the boundaries of the firm, to scan the environment for possible advancing technological changes or market preferences, and to evaluate the implications for the organization. In this context, Volberda (1998, p. 97) defines organizational flexibility as follows: "Flexibility is the degree to which an organization has a variety of managerial capabilities and the speed at which they can be activated, to increase the control capacity of management and improve the controllability of the organization." This definition implies that organizational flexibility is important in order to make use of organizational capabilities, but is not an isolated aim in itself.

Hatum & Pettigrew (2006) refer to this assumption and consider a combination of managerial capabilities based on managers' knowledge and expertise and a flexible structural design, e.g. permeable boundaries and collaborative partnerships to determine organizational flexibility.

The close connection between flexibility issues and other issues of strategic management gains support from the *dynamic capability approach* (Teece et al., 1997) and the concept of the *ambidextrous organization* (Gupta et al., 2006; Güttel & Konlechner, 2009). Following these approaches, the combination of internal and external employment can be treated as a function of organizational development and renewal (see also Kaiser, 2010), on the one hand, and exploitation needs, on the other hand. Flexibility can rather be conceived as a side-effect on the contractual level than a need in itself. The real matter is to foster dynamic capabilities for gaining sustainable competitive advantages.

It becomes obvious that the concept of organizational flexibility is changing in current literature. In the 1980s, it was the key issue for dealing with strategic and operative challenges. Contract policy was a vehicle for gaining flexibility in correspondence with strategic needs. In recent considerations, flexibility is not reduced to contract arrangements, instead it is still considered as an outcome of a broad field of policies. With respect to this circumstance, there is a need for new answers to the questions that Atkinson originally raised and now have to be adapted to knowledge-intensive fields: What are the triggers of contract flexibility in knowledge-intensive organizations? What are the organizational logics behind flexible employment? What are the

effects and (inner-organizational) consequences of contract flexibility? Is there, for example, a classification among different groups of the workforce and a related segmentation of the administered policies? The fields of strategic management research introduced do not give answers to these questions yet. This is what we try to find out on the basis of a qualitative field study in highly-flexible knowledge-intensive work environments.

### 3. Research method

In order to explore patterns of organizational flexibility in knowledge-intensive branches, we refer to a qualitative empirical approach including ten companies in Germany coping with flexibility demands. We conducted ten semi-structured interviews with chief executive officers and other executives who were addressed as company representatives and answered according to their role. We gained access to the representatives through directly contacting gate-keepers and through the snowball principle, as interviewees brought in other organizations' representatives. The interviews, taking 90 to 120 minutes, took place in 2010 and 2011 within the scope of a research project founded by the German Research Foundation. The organizations were selected by theoretical sampling (Glaser & Strauss, 1967; Eisenhardt, 1989; Locke, 2001) according to three criteria. Firstly, we focused on knowledge-intensive branches that exhibit observable engagements in flexible contract arrangements, especially with the highly qualified workforce, such as IT, media, creative industry, science, and consulting. The second criterion was to range employment policies from standard employment contracts to intermediate forms of constantly recurring contracting with a selected pool of professionals that is rather typical for knowledge-intensive branches (Kaiser & Rössing, 2010). This has been checked in the initial contact with potential interviewees. As a third criterion, we ensured that at least part of the companies represented in the sample match a series of interviews with employees of the same companies, respectively freelancers assigned by those companies. In this paper, data analysis is focused on the employer perspective.

Table 1 gives an overview of the employers interviewed and shows the contractual arrangements of the employers (E) in our sample split into an *internal* workforce (number of employees) and an *external* workforce (number of freelancers).

As the interviews were based on psychological contract research (see e.g. Shore & Tetrick, 1994; Rousseau, 1995; McLean Parks et al., 1998; Wilkens, 2004; Wilkens & Nermerich, 2011), we concentrated on contract forms, respectively contract policies, the content of the psychological contract, and also interaction and negotiation processes. We aimed to understand the contract parties operating within flexible contexts by making use of narrative interrogation. With respect to organizations, we explored what expectations they have towards their workforce and how expectations vary regarding different groups of employees depending on their contractual arrangement.

The interviews were conducted by two interviewers and subsequently discussed with the help of a short report sheet addressing the evaluation of the interview situation. Then a group of at least two and up to six team members evaluated the audio-recorded and transcribed interviews. The data evaluation was based on qualitative

content analysis (Mayring, 2000) using the program MaxQDA containing a deductive application and an inductive development of categories.

**Table 1: Sample (self-reported data)**

Criteria \ Employer	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10
Number of employees (approx.)	0*	1	0**	210	8	1	70	30	4/30****	60
Number of freelancers (approx.)	14	6	30	0	25	3	10***	10	4/1200****	30
Branch	Media	IT	Consulting	IT	Consulting	IT	Media	IT / Media	Consulting	Technology Service Company

\*self-organizing network of self-employed, interview with the speaker of this network; \*\*agency, interview with the CEO; \*\*\*not exactly quantified; \*\*\*\*international

Initially, we derived categories theoretically and applied them to the interview material to formulate definitions, find examples and define coding rules for each category. But we developed categories also inductively as we discussed prominent interview themes and, subsequently, condensed and systematized them to categories.

The transcripts were analyzed through individual and team analysis. We especially encoded the first interviews jointly in team meetings to match passages to categories, discuss category definitions and coding procedures. With a view to the latter interviews, we primarily encoded the transcripts individually and, afterwards, compared and discussed the codings in several team sessions. Correspondingly, the category system was constantly checked and modified, inductively expanded and revised. Finally, all interviews were analyzed according to the same category system; interviews already encoded were re-evaluated using the revised category system.

The rater influence is controlled by having at least two people involved in the data interpretation process. The inter-coder reliability is ensured as only trained members of the project team encoded the interviews, as we discussed in team meetings the (mis-)match of encoded categories and as we developed the category system jointly which led to its clarification and plausibility.

As a result of the data evaluation process, we specify variables which are most relevant to explain the differences between strategies in knowledge-intensive fields to gain organizational flexibility. The following core categories derived from the theoretical framework and identified and developed inductively from the interviews are used as guides to answer the questions of this paper: (1) Triggers of flexible employment, e.g. risk minimization, acquisition of expertise; (2) contract policy pursued, in particular standard/flexible contracts, recurring/non-recurring policies; (3) effects of the contract policy pursued, e.g. demarcations between different groups of knowledge workers.

## 4. Empirical findings – Patterns of flexible employment in knowledge-intensive organizations

### 4.1 Triggers of flexible employment

The representatives of organizations in knowledge-intensive fields interviewed mention the market development, i.e. “*globalization, market dynamics, demand*” (E10), as one impetus for contract flexibility. Against this background and in view of the increasing relevance of project work, organizations’ representatives anticipate the risk of losing projects and they seek to spread their business risks. In this respect, the interviewees state that market dynamics correspond with diverse contractual arrangements.

“Project business means tomorrow my project can crumble and then I’ve got a problem. And that’s why I always have to bear a relatively high risk. And I have to provide security for this risk, at least in part and as far as this is possible, in and through my employee contracts.” (E8)

Furthermore, the interviewees underline the requirement of constantly transforming and flexibly adapting to remain in the market and to become attractive for new customers or to stay attractive for established customers with changing needs. The interviewees report an increasing complexity and specialization of tasks for which they need specialists. Such specialists are declared to be usually self-employed. Moreover, organizations deploy them only punctually or selectively, which is why specialists need to cooperate with other organizations.

“Because if you have such specialists, they’re usually already self-employed, [...] or you alone can’t use them to the full capacity all the time; that’s only possible in cooperation and on the market. That means they operate nationally, or let’s say throughout Europe, in specific subject areas or do that as a side job.” (E5)

These independent contractors are of increasing relevance – especially to complement (internal) competencies – and replace permanent employees. E5 states exemplarily that:

“Independent activities of the partners predominate, well, there is a shift from permanently employed staff.” (E5)

Similarly, E8 deploys freelancers as specialized externals: “[T]hese specialties which the customer needs, [...] we get someone in specifically for that” (E8). In this respect, organizational structures change concomitant with the externalization of services. Organizations deploy and coordinate external resources in order to combine them with internal resources. Highly-specialized workers are often deployed as freelancers, especially when organizations require their specific knowledge only occasionally.

The knowledge-intensive organizations’ representatives have in common, that they regard the agility of the workforce as a crucial factor for gaining flexibility.

“So, we say that the willingness to change, agility, is what makes companies able to survive; namely also the ability to adapt to fast moving environmental conditions quickly. To recognize opportunities and risks, and also to be able to react to them, and you cannot do that centrally anymore [...]. You need employees who assume self-responsibility, who are also prepared to adapt themselves, because a change in the organization naturally also always assumes employees’ willingness to change.” (E4)

Accordingly, E5 points out that the “*identity of many good people is that of a freelancer*” (E5), which means that workers often have a self-employed identity, with the consequence

that they refuse to be permanently employed in a company. Thus, the development to more flexible contracts can also be workforce-driven as experts often do not seek permanent positions and instead offer their services as a self-employed worker (i.e. freelancer). In this context, E5 emphasizes that the contractual arrangements depend on the needs of the workforce.

“Well, I’d say all of that is so deregulated today, that it depends on the personal circumstances of the people involved, which models one chooses.” (E5)

Generally, the organizations of our sample identify market dynamics as a trigger for contractual flexibility but with diverse logics behind. Pure numerical flexibility plays a relatively subordinated role in these knowledge-intensive organizations as they offer temporary contracts or deploy freelancers not only for the purpose of gaining numerical flexibility. Freelancers are rather deployed to gain, from an organizational perspective, functional flexibility through workforce diversification in view of the increasing specialization and complexity of tasks. Therefore, organizations try to attract expertise on a temporary basis – also because it is the only way of gaining these experts on the labor market.

#### **4.2 Contract policies pursued**

The variation of contractual arrangements is one way of coping with external dynamics on an organizational level; however, this is not the only possibility. On the basis of our empirical cases, we can expose three coping patterns in contract policy. Firstly, we found organizations with a focus on internalization, respectively employing their workforce by permanent contracts; secondly, there are organizations that put emphasis on network solutions and thus focus, in principal, on deploying self-employed workers. Between these extremes, we found, thirdly, organizations pursuing mixed policies, or more precisely, deploying employees permanently and fixed-term, as well as self-employed.

E4, as a representative of the first coping pattern, does not enforce flexible contracting. The reason is that E4 offers permanent positions as a matter of principle, because long-term contract arrangements are assumed as attractive working conditions that subsequently foster organizational development.

“Well, some 95% are permanent contracts or even 98% or 99%. We only conclude temporary contracts when it makes sense to, but mostly we have permanent work contracts, employment contracts and permanent positions.” (E4)

In contrast to this, the employment policy of E9 and E3, representing the second coping pattern, shows a recurring exchange with mostly freelance experts. As consultant firms or agencies, they match freelancers to specific customer demands for problem solving activities. The customers are well-known global players with almost sophisticated and complex projects. Accordingly, a flexible service relationship aligned to the customers’ needs emerges. E9 sees the freelancing workforce as a product sold to the customer.

“We simply see if we have somebody with whom we can work together well, and if you have a profile like that, which is really wanted, it is really worthwhile because [...] there are profiles which can be sold as easy as pie and there it’s only a question as to whether they are available and don’t self-staff himself and that we are also close enough to him al-

so to know where he has a little breathing space just now, where we can then quasi push our way in with a project.” (E9)

In between those two poles, there are organizations that pursue mixed policies. E10, for example, deploys employees as well as externals.

“[W]e do 50% of our business with external partners.”(E10)

The representative interviewed from this firm explains that they differentiate the contractual arrangements according to task characteristics, the availability of employees and customer demands. There is the idea that a best fit to the situation and not a specific strategy – as in the cases already introduced – requires alternative practices.

E7 is an employer with such a mixed policy as well. He has approximately 70 employees with permanent contracts and also maintains project-related cooperation with external service providers which are each controlled by an internal core team (one to five people). This organization mainly commissions external agencies as they act as companies, which means that E7 additionally outsources administrative work. In this case, the employer focuses on the optimization of transaction costs and on the diversification of internal resources to provide the external skills required for the project.

Against this background, the organizations’ employment relations can not only be distinguished according to the contractual arrangements (Table 1), but also regarding the organizations’ dominant employment strategies. The variety of employment policies is systematized in Table 2. The markers indicate the organizational employment strategies of the employers (E) interviewed with a focus on a highly qualified workforce: While large markers indicate dominant policies, small ones indicate marginal but addressed policies in the overall employment strategy.

**Table 2: Dominant employment policies dealing with the highly qualified workforce**

Employer		E1	E2	E3	E4	E5	E6	E7	E8	E9	E10
Contract arrangement	Permanent				●	●		●	●	●	●
	Fixed-term				●			●	●		●
Employees	Recurring	●	●	●		●	●	●	●	●	●
	Non-recurring	●		●				●	●	●	●
Freelancers											
Branch		Media	IT	Consulting	IT	Consulting	IT	Media	IT / Media	Consulting	Technology Service Company

Regarding the externalization of the workforce, the organizations’ representatives underline that they pursue both, recurring and non-recurring, policies. One group continuously deploys the same externals. E8, for example, contracts with internal and external workers. Regardless of their formal employment contract, both groups are

equally integrated long-term into the company and provided with a “*secure*” or reliable perspective. In this context, E8 characterizes externals as “*permanent externals*” (E8).

In contrast to this, other organizations, such as E7, principally pays attention to the interchangeability of externals. This strategy aims at upholding organizational boundaries to avoid personal relationships and to keep business issues internal.

“[...] and of course we try and keep in mind a bit that one doesn’t do something new with the same agency every year, because then, of course, there’s a certain routine that tends to creep in, a really good connection, a personal relationship which has been established. But of course, one mustn’t forget, that is, the ones from the back of the mind, that the agencies, well the staff in the agencies, are not workmates from here. That’s something different. Well, there are secrets, business secrets, internal stuff and so on, which are really only our business and which one shouldn’t communicate outside of the company.” (E7)

The analysis of the contract policy pursued reveals that knowledge-intensive organizations vary the contractual arrangements with their workers and, especially, show different patterns of external employment even though they all have to face flexibility demands. With regard to this, we found organizations that focus on internalization (employing workers) while others focus on externalization (deploying freelancers). Between these extremes, there are organizations pursuing mixed policies (deploying employees as well as externals). On the surface, this latter group is in line with Atkinson as organizations offer different contractual arrangements and thus pursue a workforce diversification. A deeper look reveals that this group can be differentiated concerning their logic of externalization. On the one side, there are organizations which regard, in line with Atkinson, temporary deployed freelancers as interchangeable. On the other side, there are organizations with similar contract policies which regard their self-employed external workforce as permanent or recurring and give emphasis to their expertise with high relevance for the organizational core business. In this respect, external contracting is not per se associated with numerical flexibility.

### **4.3 Effects of the contract policy pursued**

Atkinson argues that the contractual differentiation of the workforce into a core and a periphery lead to different HR practices as the workers are used for different purposes. To expose the effects of the contract policy pursued on the inner-organizational fabric, we now focus on knowledge-intensive organizations integrating different contractual arrangements (pursuing mixed policies) to regard the organizations’ expectations and practices concerning their workforce and reveal different inner-organizational demarcations.

On the one hand, we identify organizations in knowledge-intensive fields that, at least partly, follow Atkinson’s argumentation and differentiate the workforce according to the contractual arrangements. On the other hand, we reveal organizations which have different contractual arrangements with their workforce as well, but do not distinguish between the workers, for example regarding functions or tasks.

An example for the first group of knowledge-intensive organizations is E10. This organization appears as having a core and peripheral workforce. The representative of the organization interviewed points out that they differentiate the workforce accord-

ing to their contractual arrangements into internal and external. But, on the whole, the workers are equally highly qualified and deployed for the same tasks like project management and consulting and thus take over activities in direct contact with the company's customers.

Although E10 does not distinguish between the workers regarding their functions, the HR practices differ in accordance with the contractual affiliation. Especially the personnel development policies and practices differ according to the contractual distinction between the internal and external workforce.

“Expectations in one's own employees is, of course, to continue their development, to see a clear direction of where the individual wants to go. With a freelancer, it's different in that I have to call up the performance, you see? I don't want to develop that one, rather he should come right up and speak for himself because he is already developed.” (E10)

With respect to freelancers, the executive argues that while the work system provides enough opportunities for development and knowledge improvement, there is no organizational responsibility for further investments. According to E10, externals would rather increase their own value through working for new customers in a new environment with new products and processes.

Representatives of this group partly follow Atkinson's argumentation as they differentiate internal and external workers on the basis of their contracts, but inconsistencies at the level of practice result. The workers are not deployed for specific tasks, as Atkinson would propose, on the contrary, they are equally highly qualified and deployed for the same tasks that contribute to the organization's core business. But the HR policies and practices still refer to the contractual differentiation.

While the organizations of the first group principally follow Atkinson's logic and draw a line between internal and external staff, the second group of organizations does not differentiate between the internal and external, respectively the core and peripheral, workforce.

E5, for example, states that the tasks of the workers can barely be distinguished: *“The actual form of work and what has to be done there, results in increasingly fewer differences”* (E5). The denied difference becomes obvious in the workforce's relevance for the development of the company. According to the representative of E5 interviewed, the workforce, employees and freelancers, contribute equally to the organizational success and strategy and are invited to make concrete proposals.

“Including people and giving them the opportunity of involving themselves on all levels, even all the way to strategic corporate decisions, [...] to give the opportunity of discussing all subjects. So, whether or how we designate areas or which markets we'll grow into, how we handle customer retention management or whatever, we always discuss this together.” (E5)

This second group has largely abandoned Atkinson's thinking and thus the separation of the workforce into a core and a periphery depending on the contractual arrangement and resulting in different functions. It is explicitly addressed, that the workers contribute to the development of the organization by being invited to discuss the organization's strategy and to shape its development. Consequently, the strategic relevance of the actors does not depend on their contractual relationship.

To sum up, though organizations in knowledge-intensive fields also deploy their workers with varying contractual arrangements, they do not consistently differentiate (or demarcate) the workforce in line with Atkinson's argumentation. We rather found organizations that have overcome the demarcation between workers on the basis of their contractual relationship with respect to their functions and purposes to secure either functional or numerical flexibility.

## 5. Discussion – Beyond existing concepts on organizational flexibility

According to the presented exploration of firms in knowledge-intensive fields, following essences that go beyond existing concepts on organizational flexibility can be summarized and treated as propositions for further research.

### 5.1 *New impetus for organizational flexibility*

Organizations' representatives emphasize the necessity of organizational flexibility due to market dynamics. However, there is a new impetus underlying. As organizations operate in knowledge-intensive fields, they have to deal with "entreployees" (Pongratz & Voß, 2003). This new type of workforce initiates flexibility due to individual workforce's resourcefulness, as well as entrepreneurial thinking and acting. By this, the organizational flexibility is promoted, but in a different way than previously conceptualized and discussed (see e.g. Atkinson, 1984). In contrast to the established models (see also Volberda, 1998; Hatum & Pettigrew, 2006; Sopolana et al., 2010), which understand organizational flexibility as a managerial task planned and organized from a top-down perspective, the empirical findings presented show that management is less acting but rather reacting. In this sense, flexibility is not just employer-driven, but also workforce-driven as *entreployees* are actively modeling and thus influencing the employment relationship and subsequently launching flexibility in organizations.

### 5.2 *Flexibility ≠ contract arrangements*

Regarding the deployment of the highly qualified, mostly self-employed workforce in knowledge-intensive firms, organizational flexibility can be conceived as a side-effect of allocating expertise. As freelancers might also contribute to the core competencies of the organization (see also Walsh & Deery, 1999), Atkinson's proposed differentiation of the workforce into core and periphery, especially on the basis of a contractual differentiation, does not appear to be adequate for knowledge-intensive organizations. Accordingly, also the distinction between numerical and functional flexibility in relation to the contractual relationship does not meet the situation in knowledge-intensive fields of employment. Whereas numerical flexibility is a subordinated issue, organizations try to gain functional flexibility by certain measures including internal and external employment.

In this sense, the formal contract appears to be of downstream relevance for indicating an employee's status – the organizations interviewed mainly aim at long-term relationships with their workforce independent of the employment contract and some organizations even do not make a difference of their HR policies and practices with regard to the internal or external workforce.

### 5.3 Inner-organizational boundaries as a result of HR management

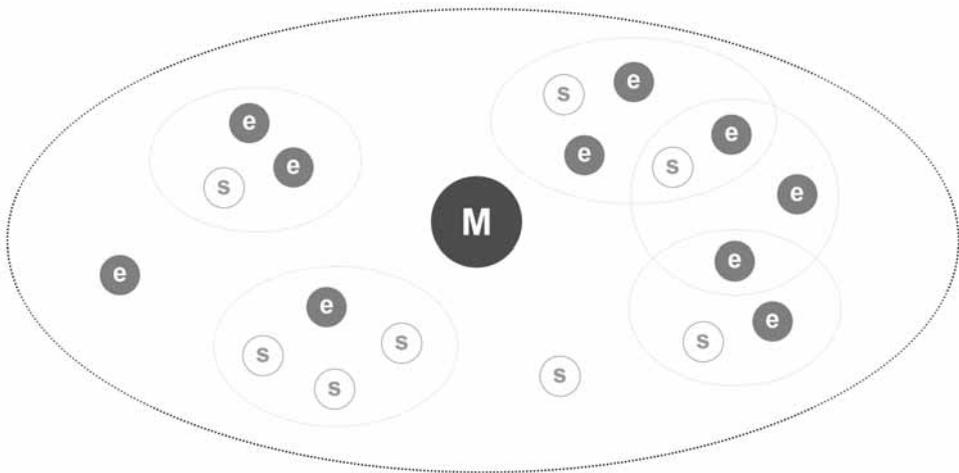
A third new logic that goes beyond Atkinson is the use of the external workforce for specific strategic issues. According to our findings, internals and externals are deployed similarly for tasks in the field of the organizations' core competencies. Moreover, as internal and external workers are deployed in a complementary way, they work so intertwined that a distinction between the core and the periphery is difficult. The representatives of the organizations interviewed emphasize the need for cooperative relationships and collaborative value creation to achieve competitive advantages (see also Hamel, 1991; Duschek & Sydow, 2002). This underlines that the competitiveness of the organization depends on the permeability of its boundaries (see also Matusik & Hill, 1998; Ortmann & Sydow, 1999; Hatum & Pettigrew, 2006).

Knowledge-intensive organizations deploy their workers with varying contractual arrangements as a vehicle for increasing the permeability. But, in contrast to Atkinson, the contractual differentiation does not per se lead to inner-organizational boundaries between the core and the periphery. Since there is no visible demarcation according to different contracts, the HR management is decisive to understand whether there are inner-organizational boundaries between the workers.

### 5.4 An amoeba-like model of organizational flexibility

Against the background of our empirical findings, we would suggest a further development of Atkinson's *Flexible Firm* towards an "amoeba-like" model of organizational flexibility.

**Figure 2: The Amoebic Organization**



The *Amoebic Organization* can be described as follows: The dark core symbolizes the management (M) or strategic leadership level of the organization. Different workers are integrated within the organization which are represented by the small spots. Regarding this different gray tones represent different contractual arrangements; the darker gray stands for employees (e), the lighter gray stands for self-employed workers (s). The workers work together within the organization regardless of their formal con-

tracts and are allocated according to their functions. The dashed lines in the figure show different work contexts, such as project work. On the whole, all lines are dashed, exemplifying the overall permeability.

Organizations in knowledge-intensive branches deploy highly qualified workers who are equipped with a highly-specialized expertise as well as generic skills. From the perspective of organizations, they can thus be utilized either for the purpose of numerical or functional flexibility.

Whether the workforce is treated as numerically flexible generally depends on whether the organization understands its workforce (permanent or fixed-term) as interchangeable or not, independent of their work contract. In this sense, organizations do not see the self-employed per se as exchange mass, but also as constituent. The different groups of the workforce have in common that they are, independent of their contract, strategic relevant and contribute to the organization's maintenance and development. In this respect, they are similarly facilitating functional flexibility in different ways.

## 6. Conclusion and outlook

We explored organizations in knowledge-intensive branches, as this field is of increasing relevance and shows a trend of deploying a highly qualified workforce flexibly. The analysis reveals that, especially for describing contract policy in the context of knowledge-intensive firms, an extension of the existing flexibility concepts is fruitful.

The contribution of this paper is to go beyond Atkinson's model of the *Flexible Firm* and propose its further development for the field of analysis. Essentially, we argue on the basis of our qualitative-empirical findings that organizational flexibility by means of flexible employment is not merely seen as a managerial task that is to be managed from the top down as it can also be workforce-driven, and thus be conceived as a side-effect of other strategic issues concerned with the expertise allocation of a highly qualified, mostly self-employed workforce.

Our findings also go beyond existing concepts on organizational flexibility as we underline that, in the light of the increasing relevance of project work and specialization of functions, freelancers also perform tasks in the field of organizational core competencies and thus are not only used for the purpose of numerical flexibility. We rather expose that the workers contribute equally to the organizations' development and core competencies and that the contract is not the decisive factor for a workforce segmentation – not least, since continual deployment of both, employees and freelancers, dominates in general. The distinction between different groups of workers rather results from the HR practices they profit from instead of the contractual arrangements.

These findings go beyond existing concepts on organizational flexibility as they highlight that the formal contract is relatively irrelevant for indicating an employee's status and that external employment is a function of developing organizational competencies for knowledge-intensive organizations.

On the basis of our findings, we suggested a further development of flexibility concepts. Our contribution can be summarized in the concept of the *Amoebic Organization* that goes beyond and adds on Atkinson's concept of the *Flexible Firm*.

Our findings are based on a qualitative field analysis which was necessary to uncover the intentions and strategies of knowledge-intensive organizations dealing with flexibility demands. In this sense, the present study has clarified the perspectives of employers on this issue and revealed different triggers, patterns, strategies, and effects of organizational flexibility by means of flexible employment. Though this approach has made an important contribution to specify relevant issues, the insights are nonetheless based on a relatively small and highly-specific sample and, thus, remain on the level of the phenomenon. Its relevance is to be examined quantitatively in further studies. This research then can reveal the empirical relevance of the *Flexible Firm* in comparison to the alternative logics we proposed.

Moreover, it became obvious that such research should integrate different fields of HR policies and practices since the distinction between different groups of employees seems to be rooted in here. Finally, it is for future studies to focus on the workforce's rather proactive contribution to organizational flexibility and the resulting effects on the employment relationship.

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